
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 20-F

(Mark One)

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

OR

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report

For the transition period from _____ to _____

Commission file number: 001-39087

Youdao, Inc.

(Exact name of Registrant as specified in its charter)

N/A

(Translation of Registrant's name into English)

Cayman Islands
(Jurisdiction of incorporation or organization)

**No. 399, Wangshang Road,
Binjiang District Hangzhou 310051,
People's Republic of China**
(Address of principal executive offices)

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Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
American depositary shares, each ADS represents one Class A ordinary share, par value US\$0.0001 per share	DAO	The New York Stock Exchange
Class A ordinary shares, par value US\$0.0001 per share*	N/A	The New York Stock Exchange

* Not for trading, but only in connection with the listing of the American depositary shares on the New York Stock Exchange.

Securities registered or to be registered pursuant to Section 12(g) of the Act:

[None]

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

[None]

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

124,795,260 ordinary shares, comprised of 36,506,900 Class A ordinary shares, par value US\$0.0001 per share, and 88,288,360 Class B ordinary shares, par value US\$0.0001 per share, as of December 31, 2022.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was

required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer ☐

Accelerated Filer ☒

Non-accelerated Filer ☐

Emerging Growth Company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards † provided pursuant to Section 13(a) of the Exchange Act. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☒

International Financial Reporting Standards as issued
by the International Accounting Standards Board ☐

Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. ☐ Item 17 ☐ Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes ☐ No ☐

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INTRODUCTION

Except where the context otherwise indicates and for the purpose of this annual report only:

- “Academic AST Business” refers to after-school tutoring services for academic subjects included in China’s compulsory education system;
- “ADSS” refers to our American depositary shares, each of which represents one Class A ordinary share;
- “AST” refers to after-school tutoring;
- “CAC” refers to the Cyberspace Administration of China;
- “Class A ordinary shares” refers to our Class A ordinary shares, par value US\$0.0001 per share;
- “Class B ordinary shares” refers to our Class B ordinary shares, par value US\$0.0001 per share;
- “gross billings” for a specific period refers to the total amount of consideration for our tutoring services , net of the total amount of refunds, in such period;
- “Linjiedian Education” refers to Hangzhou NetEase Linjiedian Education Technology Co., Ltd., a company incorporated under PRC laws;
- “MAA” refers to the fourth amended and restated memorandum and articles of association of our company, currently effective;
- “NetEase” refers to NetEase, Inc. (NASDAQ: NTES; HKEX: 9999), our controlling shareholder;
- “NetEase Group” refers to NetEase, its subsidiaries, consolidated VIEs and VIEs’ subsidiaries, other than the Youdao Group Companies;
- “NYSE” refers to the New York Stock Exchange;
- “paid courses” refers to our tutoring services for which we charge not less than RMB50 per course package;
- “paid user enrollments” for a specified period refers to the cumulative number of paid courses enrolled in by our users, including multiple paid courses enrolled in by the same user, after deducting the number of courses the tuition of which were fully refunded;
- “preferred shares” prior to our initial public offering refers to our Series A preferred shares, par value US\$0.0001 per share;
- “RMB” or “Renminbi” refers to the legal currency of China;
- “SEC” refers to the U.S. Securities and Exchange Commission
- “shares” or “ordinary shares” refers to our Class A and Class B ordinary shares, par value US\$0.0001 per share;
- “STEAM courses” refers to courses that offer science, technology, engineering, the arts and mathematics as access points for guiding student inquiry, dialogue, and critical thinking;
- “user enrollments” for a specified period refers to the cumulative number of courses enrolled in by our users, including multiple courses enrolled in by the same user, after deducting the number of courses the tuition of which were fully refunded;
- “US\$,” “dollars” or “U.S. dollars” refers to the legal currency of the United States;
- “variable interest entities” or “VIEs” refers to the PRC entities of which, through certain contractual arrangements, we have power to exert control over the management, and financial and operating policies and have the right to recognize and receive substantially all the economic benefits and in which we have an exclusive option to purchase all or part of the equity interests at the minimum price possible to the extent permitted by PRC law, which allows us to be considered the primary beneficiary of the VIEs for accounting purposes, and to consolidate their operating results in our financial statements under the U.S. GAAP, to the extent the conditions for consolidation of the VIEs under the U.S. GAAP are satisfied;

- “Youdao,” “we,” “us,” “our company” or “our” refers to Youdao, Inc., a Cayman Islands company and its subsidiaries, unless otherwise indicated;
- “Youdao Computer” refers to Beijing NetEase Youdao Computer System Co., Ltd., a company incorporated under PRC laws;

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- “Youdao Group Companies” refers to Youdao, Inc., its subsidiaries, the VIEs and the VIEs’ subsidiaries;
- “Youdao Guangzhou Computer” refers to Youdao (Guangzhou) Computer System Co., Ltd., a company incorporated under PRC laws;
- “Youdao Hangzhou” refers to NetEase Youdao Information Technology (Hangzhou) Co., Ltd., a company incorporated under PRC laws;
- “Youdao HK” refers to Youdao (Hong Kong) Limited, a company incorporated under Hong Kong laws;
- “Youdao Information” refers to NetEase Youdao Information Technology (Beijing) Co., Ltd., a company incorporated under PRC laws; and
- “Youdao Smart Technology” refers to NetEase Youdao (Hangzhou) Smart Technology Co., Ltd., a company incorporated under PRC laws.

We generate MAUs from the users of our products and services. With respect to the MAU data used in this annual report:

- “monthly active user(s)” or “MAU(s)” for a specified period, with respect to each of our products and services (except for smart devices), refers to the average of the monthly number of unique mobile or PC devices, as the case may be, through which such product and service is accessed at least once in that month. Our total MAUs for a given month is calculated by combining the MAUs of our various products and services (except for smart devices) for that month (duplicate access to different products and services is not eliminated from the calculation); our MAUs are calculated using internal company data, treating each distinguishable device as a separate MAU even though some users may access our products and services using more than one device and multiple users may access our services using the same device; and
- “average total MAUs” for a given period refers to the monthly average of the sum of our total MAUs of such period; and our MAUs are calculated using internal company data, treating each distinguishable device as a separate MAU even though some users may access our products and services using more than one device and multiple users may access our services using the same device.

We disposed of our Academic AST Business, as part of our efforts to fully comply with the new regulatory requirements adopted by the PRC government in the second half of 2021. As a result, the historical financial results of our Academic AST Business are reflected in our audited consolidated financial statements as discontinued operations accordingly. Unless otherwise stated, the financial information and non-GAAP financial measures disclosed in this annual report refer to our continuing operations.

Unless otherwise noted, all translations from Renminbi to U.S. dollars and from U.S. dollars to Renminbi in this annual report are made at RMB6.8972 to US\$1.00, the exchange rate set forth in the H.10 statistical release of the Federal Reserve Board on December 30, 2022. We make no representation that any Renminbi or U.S. dollar amounts could have been, or could be, converted into U.S. dollars or Renminbi, as the case may be, at any particular rate, or at all.

FORWARD-LOOKING INFORMATION

This annual report contains statements that constitute forward-looking statements. Many of the forward-looking statements contained in this annual report can be identified by the use of forward-looking words such as “anticipate,” “believe,” “could,” “expect,” “should,” “plan,” “intend,” “estimate” and “potential,” among others.

Forward-looking statements appear in a number of places in this annual report and include, but are not limited to, statements regarding our intent, belief or current expectations. Forward-looking statements are based on our management’s beliefs and assumptions and on information currently available to our management. Such statements are subject to risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including, but not limited to, those identified under the section entitled “Item 3. Key Information—3.D. Risk Factors” in this annual report. These risks and uncertainties include factors relating to:

- general economic, political, demographic and business conditions in China and globally;
- our ability to implement our growth strategies;
- the success of operating initiatives, including advertising and promotional efforts and new product and content development by us and our competitors;
- our ability to develop and apply our technologies to support and expand our offerings;

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- the expected growth of the intelligent learning industry in China and globally;
- our ability to compete and conduct our business in the future;
- our ability to offer new learning content;
- the availability of qualified personnel and the ability to retain such personnel;
- competition in the intelligent learning industry, particularly the segments of learning services and smart devices in China;
- the outbreak of COVID-19;
- changes in government policies and regulations and our ability to adapt our operations and business practices to the evolving PRC regulatory environment;
- other factors that may affect our financial condition, liquidity and results of operations; and
- other risk factors discussed under “Item 3. Key Information—3.D. Risk Factors.”

Should any of these risks or uncertainties materialize, or should the underlying assumptions about our business and the markets in which we operate prove incorrect, our actual results may vary materially from those described as anticipated, estimated or expected in this annual report.

Forward-looking statements speak only as of the date they are made, and except to the extent required by applicable laws and regulations, we do not undertake any obligation to update them in light of new information or future developments or to release publicly any revisions to these statements in order to reflect later events or circumstances or to reflect the occurrence of unanticipated events.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

Youdao, Inc. is a Cayman Islands holding company with no operations of its own. Youdao, Inc. conducts its operations in China through its PRC subsidiaries NetEase Youdao Information Technology (Beijing) Co., Ltd. ("Youdao Information"), NetEase Youdao Information Technology (Hangzhou) Co., Ltd. ("Youdao Hangzhou") and NetEase Youdao (Hangzhou) Smart Technology Co., Ltd. ("Youdao Smart Technology"), as well as through Beijing NetEase Youdao Computer System Co., Ltd. ("Youdao Computer"), Hangzhou NetEase Linjiedian Education Technology Co., Ltd. ("Linjiedian Education") and Youdao (Guangzhou) Computer System Co., Ltd. ("Youdao Guangzhou Computer"), which we refer to as the consolidated variable interest entities, or the VIEs, and their subsidiaries. As used in this annual report, "we," "us," "our company," "our," or "Youdao" refers to Youdao, Inc. and its subsidiaries, unless otherwise indicated. We and our direct and indirect subsidiaries do not, and it is virtually impossible for us and our subsidiaries to, have any equity interests in the VIEs as current PRC laws and regulations restrict foreign investment in companies that engage in value-added telecommunication services. As a result, we depend on certain contractual arrangements with the VIEs, which allows us to be considered the primary beneficiary of the VIEs for accounting purposes, and to consolidate their operating results in our financial statements under the U.S. GAAP, to the extent the conditions for consolidation of the VIEs under U.S. GAAP are satisfied. Nonetheless, investors in our equity securities should note that they are purchasing equity securities of a Cayman Islands holding company rather than equity securities issued by our subsidiaries or the VIEs. Neither such investors nor the holding company itself have an equity ownership in, direct investment in, or control of, through such ownership or investment, the VIEs. Investors who are non-PRC residents may never directly hold equity interests in the VIEs under current PRC laws and regulations.

The VIE structure involves unique risks to investors in the ADSs. In 2020, 2021 and 2022, the amount of revenues generated by the VIEs and their subsidiaries accounted for 71.0%, 68.5% and 70.1%, respectively, of our total net revenues. As of December 31, 2021 and 2022, the total assets of the VIEs and their subsidiaries, excluding amounts due from other companies in the Youdao Group Companies, equaled to 50.3% and 34.6% of our consolidated total assets as of the same dates, respectively. The historical fluctuations in such percentage are primarily due to changes in the restricted cash balance in the government custodian account of the VIEs. As of the date of this annual report, to our best knowledge, the contractual agreements with the VIEs have not been tested in a court of law in the PRC. If the PRC government deems that our contractual arrangements with the VIEs do not comply with PRC regulatory restrictions on foreign investment in the relevant industries, or if these regulations or the interpretation of existing regulations change in the future, we could be subject to material penalties or be forced to relinquish our interests in those operations or otherwise significantly change our corporate structure. We and our investors face significant uncertainty about potential future actions by the PRC government that could affect the legality and enforceability of the contractual arrangements with the VIEs and, consequently, significantly affect our ability to consolidate the financial results of the VIEs and the financial performance of our company as a whole. Our Class A ordinary shares, our ADSs or other equity securities may decline in value or become worthless if we are unable to effectively enforce our contractual control rights over the assets and operations of the VIEs. For a detailed discussion of the risk and uncertainties associated with the VIE structure, see "Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure—There are substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations, and rules relating to the agreements that establish the VIE structure for our and the VIEs' operations in China, including potential future actions by the PRC government, which could affect the enforceability of our contractual arrangements with the VIEs and, consequently, significantly affect the financial condition and results of operations performance of Youdao. If the PRC government finds our contractual arrangements non-compliant with relevant PRC laws, regulations, and rules, or if these laws, regulations, and rules or the interpretation thereof change in the future, we could be subject to severe penalties or be forced to relinquish our interests in the VIEs" and the other risk factors discussed under "Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure."

Implication of the Holding Foreign Companies Accountable Act

Pursuant to the Holding Foreign Companies Accountable Act, if the SEC determines that we have filed audit reports issued by a registered public accounting firm that has not been subject to inspections by the PCAOB for two consecutive years, the SEC will prohibit our shares or the ADSs from being traded on a national securities exchange or in the over-the-counter trading market in the United States. On December 16, 2021, the PCAOB issued a report to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong, including our auditor. In May 2022, the SEC conclusively listed us as a Commission-Identified Issuer under the HFCAA following the filing of our annual report on Form 20-F for the fiscal year ended December 31, 2021. On December 15, 2022, the PCAOB issued a report that vacated its December 16, 2021 determination and removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. For this reason, we do not expect to be identified as a Commission-Identified Issuer under the HFCAA after we file this annual report on Form 20-F. Each year, the PCAOB will determine whether it can inspect and investigate completely audit firms in mainland China and Hong Kong, among other jurisdictions. If PCAOB determines in the future that it no longer has full access to inspect and investigate completely accounting firms in mainland China and Hong Kong and we continue to use an accounting firm headquartered in one of these jurisdictions to issue an audit report on our financial statements filed with the SEC, we would be identified as a Commission-Identified Issuer following the filing of the annual report on Form 20-F for the relevant fiscal year. There can be no assurance that we would not be identified as a Commission-Identified Issuer for any future fiscal year, and if we were so identified for two consecutive years, we would become subject to the prohibition on trading under the HFCAA. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—The PCAOB had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections of our auditor in the past has deprived our investors with the benefits of such inspections” and “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—Our ADSs may be prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, in the future if the PCAOB is unable to inspect or investigate completely auditors located in China. The delisting of the ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment.”

Contractual Arrangements and Corporate Structure

We are a Cayman Islands company and currently conduct substantially all business operations in the PRC through Youdao Information, Youdao Hangzhou and Youdao Smart Technology, our subsidiaries incorporated in the PRC, and the VIEs and their subsidiaries. Youdao Information maintains a series of contractual arrangements with Youdao Computer and Linjiedian Education. Youdao Hangzhou maintains a series of contractual arrangements with Youdao Guangzhou Computer. We conduct a significant portion of our and the VIEs' businesses in China through Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer. It is the VIEs that hold certain key operating licenses material to their business operations, provide services to our customers, and enter into contracts with our suppliers. We operate our and the VIEs' businesses this way because PRC laws and regulations restrict foreign investment in companies that engage in value-added telecommunication services. These contractual arrangements entered into with the VIEs allow us to (i) be considered as the primary beneficiary of the VIEs, (ii) receive substantially all of the economic benefits of the VIEs, and (iii) have an exclusive option to purchase all or part of the equity interests in the VIEs when and to the extent permitted by PRC law. These contractual arrangements include the operating agreement, equity pledge agreement, exclusive purchase option agreement, shareholder voting right trust agreement, loan agreement, and cooperation agreement, as the case may be. As a result of these contractual arrangements, we are considered the primary beneficiary of the VIEs for accounting purposes, and consolidate their operating results in our financial statements under U.S. GAAP, to the extent the conditions for consolidation of the VIEs under the U.S. GAAP are satisfied.

We do not have any equity interests in the VIEs which are owned by certain nominee shareholders. As a result, even though these contractual arrangements allow us to be considered the primary beneficiary of the VIEs for accounting purposes, which results in the consolidation of VIEs' operating results in our financial statements under the U.S. GAAP to the extent the conditions for consolidation of the VIEs under the U.S. GAAP are satisfied, we do not have an equity ownership in, direct investment in, or control of (through such ownership or investment), the VIEs, and we could face heightened risks and costs in enforcing these contractual arrangements, because there are substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations, and rules relating to the legality and enforceability of these contractual arrangements. For the risks related to the nominee shareholders of the VIEs, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to our Corporate Structure—Any failure by the VIEs or their shareholders to perform their obligations under our contractual arrangements with them would have a material adverse effect on our business.” If the PRC government finds such agreements to be illegal, we could be subject to severe penalties or be forced to relinquish our interests in the VIEs.

Transfer of Funds and Other Assets

Youdao, Inc., our Cayman Islands holding company, remits funds to our wholly-owned Hong Kong subsidiaries by making capital contributions or providing loans to them, and our Hong Kong subsidiaries remit funds to our PRC subsidiaries by making capital contributions to them. Youdao, Inc. also remits funds to Youdao Information, one of our PRC subsidiaries, by providing loans.

Under relevant PRC laws and regulations, we are permitted to remit funds to the VIEs through loans rather than capital contributions. In 2020, 2021 and 2022, we did not make any loans to the VIEs. The VIEs fund their operations primarily using cash generated from operating and financing activities. For more information, see “Item 4. Information on the Company—4.A. History and Development of the Company—Selected Condensed Consolidating Schedule,” and our consolidated financial statements included elsewhere in this annual report.

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As of December 31, 2022, Youdao, Inc. had made cumulative capital contributions of US\$125.2 million to our PRC subsidiaries through intermediate holding company, and were accounted as long-term investments of Youdao, Inc. Furthermore, funds equivalent to US\$155.0 million, US\$257.0 million and US\$43.0 million were provided by Youdao, Inc. to Youdao Information through loans in 2020, 2021 and 2022, respectively, which were accounted as loans to subsidiary. These funds have been used by our PRC subsidiaries for their operations. As of December 31, 2022, the loan balance Youdao Information made to the VIEs' nominee shareholders under the VIE agreements was RMB15.0 million (US\$2.2 million). For details, see "Item 4. Information on the Company—4.C. Organizational Structure—Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders—Loan Agreements." The VIEs may transfer cash to our PRC subsidiaries by paying service fees in accordance with the relevant contractual arrangements. In 2020, 2021 and 2022, the VIEs transferred RMB3,098.8 million, RMB2,409.3 million and RMB2,944.2 million (US\$426.9 million), respectively, to our PRC subsidiaries as payment or prepayment of service fees. Youdao Information and Youdao Hangzhou, our PRC subsidiaries, maintained certain personnel for content production, sales and marketing, research and development, and general and administrative functions to support the operations of the VIEs.

As of December 31, 2021 and 2022, the prepayment of service fees from the VIEs to our PRC subsidiaries amounted to RMB442.1 million and RMB1,395.3 million (US\$202.3 million), respectively. As of December 31, 2021 and 2022, the outstanding balance of service fees owed by the VIEs to our PRC subsidiaries amounted to RMB464.7 million and RMB844.1 million (US\$122.4 million), respectively. There were no other assets transferred between VIEs and non-VIEs in 2020, 2021 and 2022.

Investors in our securities should note that, to the extent cash in the business is in the PRC or a PRC entity, the funds may not be available to fund operations or for other use outside of the PRC due to interventions in or the imposition of restrictions and limitations on the ability of Youdao, Inc., its subsidiaries, or the VIEs by the PRC government to transfer cash. As advised by our PRC legal counsel, for any amounts owed by the VIEs to our PRC subsidiaries under the VIE agreements, unless otherwise required by PRC tax authorities, we are able to settle such amounts under the current effective PRC laws and regulations, provided that the VIEs have sufficient funds to do so. Our PRC subsidiaries are permitted to pay dividends to their shareholders, and eventually to Youdao, Inc., only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Such payment of dividends by entities registered in China is subject to limitations, which could result in limitations on the availability of cash to fund dividends or make distributions to shareholders of our securities. For example, our PRC subsidiaries and the VIEs are required to make appropriations to certain statutory reserve funds or may make appropriations to certain discretionary funds, which are not distributable as cash dividends except in the event of a solvent liquidation of the companies. For more details, see "Item 3. Key Information—3.D. Risk Factors—Summary of Risk Factors," "Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—We may rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material and adverse effect on our ability to conduct our business," "—PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may delay us from making loans or additional capital contributions to our PRC subsidiaries and to make loans to the VIEs, which could materially and adversely affect our liquidity and our ability to fund and expand our and the VIEs' business" and "—If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders." Youdao, Inc. has not previously declared or paid any cash dividend or dividend in kind, and has no plan to declare or pay any dividends in the near future on our shares or the ADSs representing our ordinary shares. We currently intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business. As of the date of this annual report, we do not have cash management policies in place that dictate how funds are transferred between Youdao, Inc., our subsidiaries, the VIEs and the investors. Rather, the funds can be transferred in accordance with the applicable PRC laws and regulations discussed in this section. See "Item 8. Financial Information—8.A. Consolidated Statements and Other Financial Information—Dividend Policy."

For the purpose of illustration, the below table reflects the hypothetical taxes that might be required to be paid within China, assuming that: (i) we have taxable earnings, and (ii) we determine to pay a dividend in the future:

	Taxation Scenario⁽¹⁾ Statutory Tax and Standard Rates
Hypothetical pre-tax earnings ⁽²⁾	100%
Tax on earnings at statutory rate of 25%	-25%
Net earnings available for distribution	75%
Withholding tax at standard rate of 10% ⁽³⁾	-7.5%

Net distribution to Parent/Shareholders

67.5%

Notes:

- (1) The tax calculation has been simplified for the purpose of this example. The hypothetical book pre-tax earnings amount, which does not consider timing differences, is assumed to equal the taxable income in the PRC.
- (2) Under the terms of the VIE agreements, sales service fees are charged by our PRC subsidiaries to the VIEs. For all the periods presented, these fees are recognized as cost of revenues of the VIEs, with a corresponding amount as service income by our PRC subsidiaries and eliminated in consolidation. For income tax purposes, our PRC subsidiaries and the VIEs file income taxes on a separate company basis. The fees paid are recognized as a tax deduction by the VIEs and as income by our PRC subsidiaries and are tax neutral.

Upon the instance that the VIEs reach a cumulative level of profitability, because our PRC subsidiaries occupy certain trademarks and copyrights, the agreements will be updated to reflect charges for such trademarks and copyrights usage on the basis that they will qualify for tax neutral treatment.

- (3) China's Enterprise Income Tax Law imposes a withholding income tax of 10% on dividends distributed by a Foreign Invested Enterprises ("FIE") to its immediate holding company outside of China. A lower withholding income tax rate of 5% is applied if the FIE's immediate holding company is registered in Hong Kong or other jurisdictions that have a tax treaty arrangement with China, subject to a qualification review at the time of the distribution. For the purpose of this hypothetical example, this table has been prepared based on a taxation scenario under which the full withholding tax would be applied.

The table above has been prepared under the assumption that all profits of the VIEs will be distributed as fees to our PRC subsidiaries under tax neutral contractual arrangements. If in the future, the accumulated earnings of the VIEs exceed the fees paid to our PRC subsidiaries, or if the current and contemplated fee structure between the intercompany entities is determined to be non-substantive and disallowed by Chinese tax authorities, the VIEs could make a non-deductible transfer to our PRC subsidiaries for the amounts of the stranded cash in the VIEs. This would result in such transfer being non-deductible expenses for the VIEs but still taxable income for the PRC subsidiaries. Such a transfer and the related tax burdens would reduce our after-tax income to approximately 50.6% of the pretax income. Our management believes that there is only a remote possibility that this scenario would happen.

Restrictions on Foreign Exchange and the Ability to Transfer Cash between Entities, Across Borders and to U.S. Investors

In the future, if and when we become profitable, Youdao, Inc.'s ability to pay dividends, if any, to its shareholders and ADS holders and to service any debt it may incur will depend upon dividends paid by our PRC subsidiaries. Under PRC laws and regulations, our PRC subsidiaries are subject to certain restrictions with respect to paying dividends or otherwise transferring any of their net assets offshore to Youdao, Inc. In particular, under the current effective PRC laws and regulations, dividends may be paid only out of distributable profits. Distributable profits are the net profit as determined under PRC GAAP, less any recovery of accumulated losses and appropriations to statutory and other reserves required to be made. Each of our PRC subsidiaries is required to set aside at least 10% of its after-tax profits each year, after making up previous years' accumulated losses, if any, to fund certain statutory reserve funds, until the aggregate amount of such a fund reaches 50% of its registered capital. As a result, our PRC subsidiaries may not have sufficient distributable profits to pay dividends to us in the near future.

Furthermore, if certain procedural requirements are satisfied, the payment of current account items, including profit distributions and trade and service related foreign exchange transactions, can be made in foreign currencies without prior approval from State Administration of Foreign Exchange (the "SAFE") or its local branches. However, where RMB is to be converted into foreign currency and remitted out of China to pay capital expenses, such as the repayment of loans denominated in foreign currencies, approval from or registration with competent government authorities or its authorized banks is required. The PRC government may take measures at its discretion from time to time to restrict access to foreign currencies for current account or capital account transactions. If the foreign exchange control system prevents us from obtaining sufficient foreign currencies to satisfy our foreign currency demands, we may not be able to pay dividends in foreign currencies to our offshore intermediary holding companies or ultimate parent company, and therefore, our shareholders or investors in our ADSs. Further, we cannot assure you that new regulations or policies will not be promulgated in the future, which may further restrict the remittance of RMB into or out of the PRC. We cannot assure you, in light of the restrictions in place, or any amendment to be made from time to time, that our current or future PRC subsidiaries will be able to satisfy their respective payment obligations that are denominated in foreign currencies, including the remittance of dividends outside of the PRC. If any of our subsidiaries incurs debt on its own behalf in the future, the instruments governing such debt may restrict its ability to pay dividends to Youdao, Inc. In addition, our PRC subsidiaries are required to make

appropriations to certain statutory reserve funds, which are not distributable as cash dividends except in the event of a solvent liquidation of the companies.

For PRC and United States federal income tax consideration of an investment in the ADSs, see “Item 10. Additional Information—10.E. Taxation.”

Recent Regulatory Development

Cybersecurity Review Measures

On January 4, 2022, the CAC published the Revised Cybersecurity Review Measures, which became effective on February 15, 2022 and repealed the Cybersecurity Review Measures promulgated on April 13, 2020. The Revised Cybersecurity Review Measures provide that a critical information infrastructure operator purchasing network products and services, and platform operators carrying out data processing activities, which affect or may affect national security, shall apply for cybersecurity review and that a platform operator with more than one million users' personal information aiming to list abroad must apply for cybersecurity review.

Our PRC legal counsel has consulted the competent government authorities which acknowledged that, under the currently effective PRC laws and regulations, a company that has been listed on a foreign stock exchange before the promulgation of the Revised Cybersecurity Review Measures is not required to go through a cybersecurity review by the CAC to conduct a securities offering or to maintain its listing status on the foreign stock exchange on which its securities have been listed. Based on the consultation, our PRC legal counsel is of the opinion that, under the currently effective PRC laws and regulations, we are not required to go through a cybersecurity review by the CAC to conduct a security offering or maintain our listing status on the NYSE. However, there remain substantial uncertainties on the interpretation and implementations of the Cybersecurity Review Measures. If the CSRC, the CAC or other regulatory agencies later require that we obtain their approvals for our future offshore offerings, we may be unable to obtain such approvals in a timely manner, or at all, and such approvals may be rescinded even if obtained. Any such circumstance could significantly limit or completely hinder our ability to continue to offer securities to investors and cause the value of such securities to significantly decline or be worthless. In addition, implementation of industry-wide regulations affecting our operations could limit our ability to attract new customers and/or users and cause the value of our securities to significantly decline. Therefore, investors of our company and our business face potential uncertainty from actions taken by the PRC government affecting our business.

As of the date of this annual report, we have not been involved in any investigations or become subject to a cybersecurity review initiated by the CAC based on the Cybersecurity Review Measures, and we have not received any inquiry, notice, warning, sanctions in such respect or any regulatory objections to our listing status from the CAC.

CSRC Filing Required for Overseas Listing and Securities Offerings

On July 6, 2021, certain PRC regulatory authorities issued Opinions on Strictly Cracking Down on Illegal Securities Activities. These opinions call for strengthened regulation over illegal securities activities and supervision on overseas listings by China-based companies and propose to take effective measures, such as promoting the development of relevant regulatory systems to deal with the risks and incidents faced by China-based overseas-listed companies.

Moreover, on February 17, 2023, the CSRC released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies, or the Overseas Listing Trial Measures, and five supporting guidelines, which came into effect on March 31, 2023. Pursuant to the Overseas Listing Trial Measures, domestic companies that seek to offer or list securities overseas, both directly and indirectly, should fulfill the filing procedure and report relevant information to the CSRC. Domestic companies that have been listed on a foreign stock exchange prior to the effective date of the Overseas Listing Trial Measures are not required to complete filing with the CSRC to maintain its listing status on the foreign stock exchange, but are required to file with the CSRC within three working days after such domestic company completes a security offering on the foreign stock exchange on which its securities have been listed. Since the Overseas Listing Trial Measures was newly promulgated, its interpretation, application and enforcement remain unclear. If the filing procedure with the CSRC under the Overseas Listing Trial Measures is required for any future offerings, listing or any other capital raising activities by us, it is uncertain whether we could complete the filing procedure in a timely manner, or at all. We have been closely monitoring regulatory developments in China regarding any necessary approvals from the CSRC, the CAC, or other PRC regulatory authorities required for overseas listings. As of the date of this annual report, we have not received any inquiry, notice, warning, sanction or regulatory objection from the CSRC.

Permission Required from the PRC Authorities for Our Operations and Overseas Securities Offerings

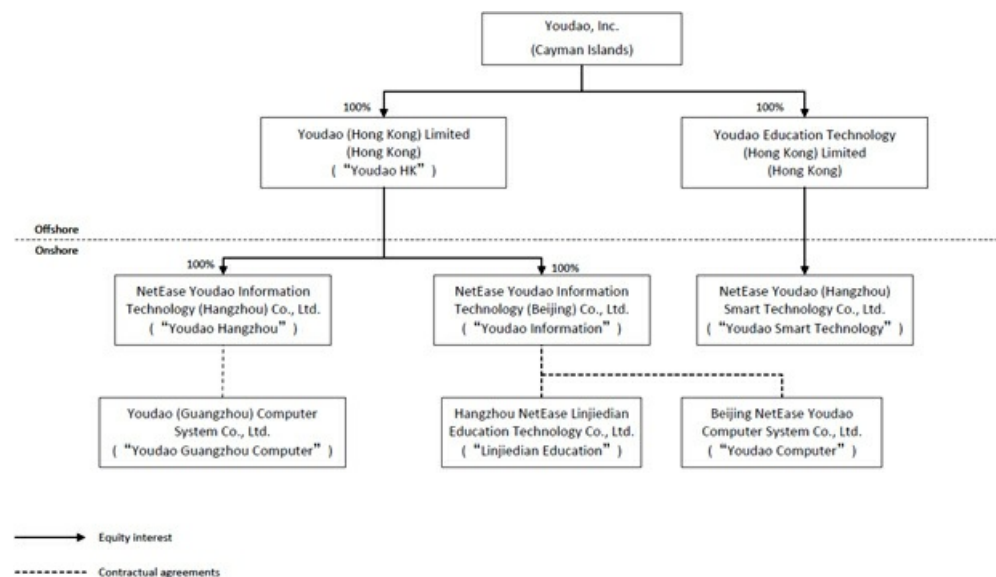
Except as disclosed in “Item 3. Key Information—3.D. Risk Factors—Risk Related to Our Business and Industry—Our compliance with the Opinions on Further Alleviating the Burden of Homework and After-School Tutoring for Students in Compulsory Education and the implementation measures issued by the relevant PRC government authorities has materially and adversely affected and may continue to affect our and the VIEs’ business, financial condition, results of operations and prospect,” “Item 3. Key Information—3.D. Risk Factors—Risk Related to Our Business and Industry—Our failure to obtain, maintain or renew other licenses, approvals, permits, registrations or filings necessary to conduct our and the VIEs’ operations in China could have a material adverse impact on our and the VIEs’ business, financial condition and results of operations” and “Item 3. Key Information—3.D. Risk Factors—Risk Related to Our Business and Industry—We may face risks and uncertainties with respect to the licensing requirement for internet audio-visual programs,” based on the opinion of our PRC legal counsel, we believe our PRC subsidiaries and the VIEs have obtained the requisite licenses and permits from the PRC government authorities that are necessary for their material business operations in China, including the ICP license, the Publication Operation Permit and the Permit for Production and Operation of Radio and TV Program. Given the uncertainties of interpretation and implementation of relevant laws and regulations and the enforcement practice by relevant government authorities, we or any of the VIEs may be required to obtain additional licenses, permits, filings, or approvals for the business operations in the future. If we or any of the VIEs is found to be in violation of any existing or future PRC laws or regulations, or fail to obtain or maintain any of the required permits or approvals, the relevant PRC regulatory authorities would have broad discretion to take actions in dealing with such violations or failures. In addition, if we or any of the VIEs had inadvertently concluded that such approvals, permits, registrations or filings were not required, or if applicable laws, regulations or interpretations change in a way that requires us or any of the VIEs to obtain such approval, permits, registrations or filings in the future, we or the relevant VIEs may be unable to obtain such necessary approvals, permits, registrations or filings in a timely manner, or at all, and such approvals, permits, registrations or filings may be rescinded even if obtained. Any such circumstance may subject us or the relevant VIEs to fines and other regulatory, civil or criminal liabilities, and we or relevant VIEs may be ordered by the competent government authorities to suspend relevant operations, which will materially and adversely affect our and the VIEs’ business operation. For risks relating to licenses and approvals required for our and the VIEs’ operations in China, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—Our failure to obtain, maintain or renew other licenses, approvals, permits, registrations or filings necessary to conduct our and the VIEs’ operations in China could have a material adverse impact on our and the VIEs’ business, financial condition and results of operations” and “Item 3. Key Information—3.D. Risk Factors—Risk Related to Our Business and Industry—We may face risks and uncertainties with respect to the licensing requirement for internet audio-visual programs.”

In addition, the PRC government has recently indicated an intent to exert more oversight over overseas securities offerings and published a series of laws and regulations to regulate such transactions. In connection with our prior overseas offerings and NYSE listing status, as of the date of this annual report, we (i) have not been required to obtain any permission from or complete any filing with the CSRC, and (ii) have not been required to go through a cybersecurity review by the CAC.

However, there are substantial uncertainties as to how PRC governmental authorities will regulate overseas listings and offerings in general and whether we are required to complete any filing or obtain any specific regulatory approval from the CSRC, the CAC or any other PRC governmental authorities for our future overseas securities offerings. If we had inadvertently concluded that such filings or approvals were not required, or if applicable laws, regulations or interpretations change in a way that requires us to complete such filings or obtain such approvals in the future, we may be unable to fulfill such requirements in a timely manner, or at all, and such approvals may be rescinded even if obtained. Any such circumstance could subject us to penalties, including fines, suspension of business and revocation of required licenses, significantly limit or completely hinder our ability to continue to offer securities to investors and cause the value of such securities to significantly decline or be worthless. For more detailed information, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—The approval, filing or other requirements of the China Securities Regulatory Commission or other PRC government authorities may be required under PRC law in connection with our issuance of securities overseas or maintenance of the listing status of our ADSs, and if required, we cannot predict whether or for how long we will be able to obtain such approval or complete such filing or other requirements.”

Organizational Structure

The following chart shows our corporate structure, including our principal subsidiaries and the VIEs as of the date of this annual report.



Notes:

- (1) Youdao HK currently operates our overseas knowledge tool and related businesses, including *U-Dictionary*.
- (2) Shareholders of Linjiedian Education are William Lei Ding, our director (who is also the chief executive officer, a director and a major shareholder of NetEase, our controlling shareholder), and Feng Zhou, our Chief Executive Officer and director, each holding 99% and 1%, respectively, of Linjiedian Education's equity interests.
- (3) Shareholders of Youdao Computer are William Lei Ding, our director (who is also the chief executive officer, a director and a major shareholder of NetEase, our controlling shareholder), and Feng Zhou, our Chief Executive Officer and director, each holding approximately 71% and 29%, respectively, of Youdao Computer's equity interests.
- (4) Shareholders of Youdao Guangzhou Computer are Feng Zhou, our Chief Executive Officer and director, and Yinghui Wu, our Vice President, each holding 99% and 1%, respectively, of Youdao Guangzhou Computer's equity interests.

Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders

Current PRC laws and regulations impose certain restrictions or prohibitions on foreign ownership of companies that engage in value-added telecommunication services and certain other businesses. We are a company registered in the Cayman Islands. Youdao Information and Youdao Hangzhou, our PRC subsidiaries, are considered foreign-invested enterprises. To comply with the foregoing restrictions imposed by PRC laws and regulations on foreign investments, we conduct a significant portion of our businesses in China through Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer, the VIEs in the PRC, based on a series of contractual arrangements between us and the VIEs and their respective shareholders. As a result of these contractual arrangements, we are considered the primary beneficiary of the VIEs for accounting purposes, and consolidate their operating results in our financial statements under the U.S. GAAP, to the extent the conditions for consolidation of the VIEs under the U.S. GAAP are satisfied. In 2020, 2021 and 2022, the amount of revenues generated by the VIEs and their subsidiaries accounted for 71.0%, 68.5% and 70.1%, respectively, of our total net revenues. As a result, our ability to pay dividends depends upon dividends paid by our subsidiaries which, in turn, depends on the payment of service fees to our PRC subsidiaries by the VIEs in the PRC pursuant to certain contractual arrangements among our PRC subsidiaries, the VIEs and the VIEs' shareholders. In 2020, 2021 and 2022, the amount of service fees charged by our PRC subsidiaries to the VIEs was RMB1,964.8 million, RMB3,473.5 million and RMB2,767.8 million (US\$401.3 million) (without giving effects to the discontinued operation presentation of our historical financial results as a result of the disposal of our Academic AST Business), respectively. We expect that the amounts of such service fees will increase in the foreseeable future as our PRC business continues to grow.

The following is a summary of the contractual arrangements by and among Youdao Information, Youdao Computer and the shareholders of Youdao Computer. The contractual arrangements with the other VIEs, except for the cooperation agreements, are substantially similar to the corresponding contractual arrangements as discussed below. For the complete text of these contractual arrangements, please see the copies filed as exhibits to this annual report.

In the opinion of Tian Yuan Law Firm, our PRC legal counsel, save for the uncertainties disclosed in this annual report, the contractual arrangements described in the “Item 4. Information on the Company—4.C. Organizational Structure—Contractual Arrangements with the VIEs and the VIEs’ Respective Shareholders” are valid, binding and enforceable under current PRC law. However, our PRC legal counsel has also advised us that there are substantial uncertainties regarding the interpretation and application of current or future PRC laws and regulations. Accordingly, the PRC regulatory authorities may take a view that is contrary to the opinion of our PRC legal counsel. It is uncertain whether any new PRC laws or regulations relating to VIE structure will be adopted or if adopted, how they would affect the VIE structure. We have been further advised by our PRC legal counsel that if the PRC government authorities find that the agreements that establish the structure for operating our value-added telecommunication services and other business do not comply with PRC government restrictions on foreign investment in such businesses, we could be subject to severe penalties including being prohibited from continuing operations. Additionally, these contractual arrangements may not be as effective as equity ownership in providing us with control over the VIEs. If the VIEs or their shareholders fail to perform their respective obligations under such contractual arrangements, we could be limited in our ability to enforce such contractual arrangements in the PRC and may have to incur substantial costs and expend additional resources to enforce such arrangements. We may also have to rely on legal remedies under PRC law, including seeking specific performance or injunctive relief, and claiming damages, which we cannot assure will be effective. Additionally, the ability of our PRC subsidiaries to pay dividends to us is limited by certain PRC legal restrictions on the payment of dividends by PRC companies and foreign exchange control, among others, which prevent us from having unfettered access to our PRC subsidiaries’ and VIEs’ revenues. Our access to the VIEs’ revenues is also limited since we do not have equity ownership in the VIEs and have to rely on the payment of service fees by the VIEs to our PRC subsidiaries. For a more detailed description of the risks related to these contractual arrangements and our corporate structure, please see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure” starting from page 38 of this annual report.

Cooperation Agreements

Youdao Computer and Youdao Information entered into a cooperation agreement, or the Youdao Computer Cooperation Agreement, on July 1, 2015. Under the Youdao Computer Cooperation Agreement, Youdao Information has agreed to provide the following services to Youdao Computer:

- the development of computer software (including, but not limited to, producing online advertisement and distribution and maintenance of software) and technical support and maintenance for computer software operation;
- the design, development, update and upgrade of platforms for online advertisement; and
- the provision of technology support, including, but not limited to, server maintenance, development of server software and related maintenance and updates.

Youdao Computer has agreed to share its monthly income (after tax and expenses) with Youdao Information in accordance with certain formulas as specified in the Youdao Computer Cooperation Agreement. The Youdao Computer Cooperation Agreement was effective from July 1, 2015 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

Linjiedian Education and Youdao Information entered into a cooperation agreement, or the Linjiedian Education Cooperation Agreement, on January 18, 2019, pursuant to which Youdao Information has agreed to provide the following services to Linjiedian Education:

- the development of computer software (including, but not limited to information management software and other technical software) and technical support and maintenance for computer software operation;
- licensing of software, trademark, domains, technical secrets and other associated intellectual property rights; and
- the provision of R&D services in relation to education courseware and teaching support services.

Linjiedian Education has agreed to share its monthly income (after tax and expenses) with Youdao Information in accordance with certain formulas as specified in the Linjiedian Education Cooperation Agreement. The Linjiedian Education Cooperation Agreement was effective from January 18, 2019 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

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Youdao Guangzhou Computer and Youdao Hangzhou entered into a cooperation agreement, or the Youdao Guangzhou Computer Cooperation Agreement, on January 1, 2022, pursuant to which Youdao Hangzhou has agreed to provide the following services to Youdao Guangzhou Computer:

- the development of computer software (including, but not limited to information management software and other technical software) and technical support and maintenance for computer software operation;
- licensing of software, trademark, domains, technical secrets and other associated intellectual property rights; and
- the provision of R&D services in relation to education courseware and teaching support services.

Youdao Guangzhou Computer has agreed to share its monthly income (after tax and expenses) with Youdao Hangzhou in accordance with certain formulas as specified in the Youdao Guangzhou Computer Cooperation Agreement. The Youdao Guangzhou Computer Cooperation Agreement was effective from January 1, 2022 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

Operating Agreements

To ensure the successful performance of the various agreements between the parties, each of William Lei Ding and Feng Zhou, the shareholders of Youdao Computer, entered into an operating agreement with Youdao Computer and Youdao Information, with each agreement taking effect from September 26, 2016. Under the operating agreements, each of Youdao Computer, Mr. Ding and Dr. Zhou agreed that, except for transactions in the ordinary course of business, Youdao Computer will not enter into any transaction that would materially affect the assets, liabilities, rights or operations of Youdao Computer without the prior written consent of Youdao Information. Youdao Information also agreed that it would provide performance guarantees and, at its discretion, guarantee loans for working capital purposes to the extent required by Youdao Computer for its operations. As counter-guarantee, Youdao Computer agreed to pledge the account receivable in its operations and all of its assets to Youdao Information, which pledge has not been implemented as of the date of this annual report. Furthermore, each of Mr. Ding and Dr. Zhou agreed that, upon instruction from Youdao Information, he would appoint candidates recommended by Youdao Information as Youdao Computer's board members, president, chief financial officer and other senior executive officers. The term of each operating agreement is 20 years from the date of execution and can be extended with the written consent of Youdao Information.

Equity Pledge Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into an equity pledge agreement with Youdao Information, with each agreement taking effect from September 26, 2016. Under such equity pledge agreements, each of Mr. Ding and Dr. Zhou pledged his respective equity interest in Youdao Computer to Youdao Information to secure his obligations under the applicable loan agreement, exclusive purchase option agreement, shareholder voting right trust agreement, and operating agreement. Each of Mr. Ding and Dr. Zhou further agreed not to transfer or pledge his respective equity interest in Youdao Computer without the prior written consent of Youdao Information. Each of the equity pledge agreements will remain binding until the respective pledger, Mr. Ding or Dr. Zhou, as the case may be, discharges all his obligations under the above-mentioned agreements. As of the date of this annual report, the equity pledges under such Equity Pledge Agreements have been registered with competent PRC regulatory authority.

Exclusive Purchase Option Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into an exclusive purchase option agreement with Youdao Information and Youdao Computer, with each agreement taking effect from September 26, 2016. Under the exclusive purchase option agreements, each of Mr. Ding and Dr. Zhou granted Youdao Information an option to purchase all or a portion of his respective equity interest in Youdao Computer at a price equal to the original and any additional paid-in capital paid by him. In addition, under each exclusive purchase option agreement, Youdao Computer has granted Youdao Information an option to purchase all or a portion of the assets held by Youdao Computer or its subsidiaries at a price equal to the net book value of such assets. Each of Youdao Computer, Mr. Ding and Dr. Zhou agreed not to transfer, mortgage or permit any security interest to be created on any equity interest in or assets of Youdao Computer without the prior written consent of Youdao Information. Each exclusive purchase option agreement shall remain in effect until all of the equity interests in or assets of Youdao Computer have been acquired by Youdao Information or its designee or until Youdao Information unilaterally

terminates the agreement by written notice.

Shareholder Voting Right Trust Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into a shareholder voting right trust agreement with Youdao Information, with each agreement taking effect from September 26, 2016. Under the shareholder voting right trust agreements, each of Mr. Ding and Dr. Zhou agreed to irrevocably entrust a person designated by Youdao Information to represent him to exercise all the voting rights and other shareholders' rights to which he is entitled as a shareholder of Youdao Computer. Each shareholder voting right trust agreement shall remain effective for as long as Mr. Ding or Dr. Zhou, as applicable, remains a shareholder of Youdao Computer unless Youdao Information unilaterally terminates the agreement by written notice.

Loan Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into a loan agreement with Youdao Information, with each agreement taking effect from September 26, 2016. Under these loan agreements, Youdao Information provided each of Mr. Ding and Dr. Zhou with an interest-free loan. The proceeds from the loans were used by each of Mr. Ding and Dr. Zhou to pay the consideration to acquire their respective equity interest in Youdao Computer. The loans can be repaid by transferring each of Mr. Ding's and Dr. Zhou's respective equity interest in Youdao Computer to Youdao Information or its designee or through such other method as Youdao Information shall determine. The term of each of the Loan Agreements is 10 years from the date of such agreement and will be automatically extended for a further 10-year term unless otherwise decided by Youdao Information.

We face various legal and operational risks and uncertainties associated with being based in and having the majority of our and the VIEs' operations in China. These risks and uncertainties could result in a material change in our and the VIEs' operations and/or the value of the securities we are registering for sale or could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and cause the value of such securities to significantly decline or be worthless. The PRC government has significant authority to intervene with or exert influence on the ability of a China-based company, like us, to conduct its business, accept foreign investments or maintain our status as a company listed on a U.S. stock exchange, as the government deems appropriate to further regulatory, political and societal goals.

We also face risks associated with recent statements and regulatory actions by the PRC government, including those related to regulatory approvals of offshore offerings, anti-monopoly regulatory actions, cybersecurity and data privacy, regulations on the use of variable interest entities. For example, the PRC government has recently indicated an intent to exert more oversight over overseas securities offerings and published a series of laws and regulations to regulate such transactions. See "Item 3. Key Information—Recent Regulatory Development" for more information about these new laws and regulations. While we believe, to the best of our knowledge, that our and the VIEs' business operations do not violate any of the PRC laws and regulations currently in force in all material respects, we cannot guarantee that new rules or regulations promulgated in the future will not impose any additional requirement on us or otherwise tightening the regulations on companies with a VIE structure. If the CSRC or other PRC regulatory agencies determine that prior approval is required for any of our offerings of securities overseas or maintenance of the listing status of the ADSs, we cannot guarantee that we will be able to obtain such approval in a timely manner, or at all. The CSRC or other PRC regulatory agencies also may take actions requiring us, or making it advisable for us, not to proceed with such offering or maintain the listing status of our ADSs. If we proceed with any of such offering or maintain the listing status of our ADSs without obtaining the CSRC's or other PRC regulatory agencies' approval to the extent it is required, or if we are unable to comply with any new approval requirements which might be adopted for offerings that we have completed, we may face regulatory actions or other sanctions from the CSRC or other PRC regulatory agencies. These regulatory agencies may impose fines and penalties on our and the VIEs' operations in China, limit our ability to pay dividends outside of China or accept foreign investments, delay or restrict the repatriation of the proceeds from offering of securities overseas into China or take other actions that could have a material adverse effect on our business, financial condition, results of operations and prospects, as well as the trading price of the ADSs. See "Item 3. Key Information—Recent Regulatory Development" starting from page 5 of this annual report, and "Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—The approval, filing or other requirements of the China Securities Regulatory Commission or other PRC government authorities may be required under PRC law in connection with our issuance of securities overseas or maintenance of the listing status of our ADSs, and, if required, we cannot predict whether or for how long we will be able to obtain such approval or complete such filing or other requirements" on page 35 of this annual report and "Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—The PRC government may intervene or influence our and the VIEs' operations at any time, or may exert more control over our future overseas offerings or foreign investments in us, which could result in a material change in our and the VIEs' operation and the value of our ADSs" on page 43 of this annual report.

You should carefully consider all of the information in this annual report before making an investment in the ADSs. Below please find a summary of the principal risks and uncertainties we face, organized under relevant headings. In particular, as we are a China-based company incorporated in the Cayman Islands, you should pay special attention to subsections headed “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China” and “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure.”

3.A. [Reserved]

3.B. Capitalization and Indebtedness

Not applicable.

3.C. Reason for the Offer and Use of Proceeds

Not applicable.

3.D. Risk Factors

Below please find a summary of the principal risks we face, organized under relevant headings. Unless otherwise indicated, all the legal and operational risks associated with being based in and having operations in the PRC also apply to operations in Hong Kong.

Risks Related to Our Business and Industry

Risks and uncertainties related to our business and industry include, but are not limited to, the following:

- Risks associated with changes in our business strategies and offerings. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—The changes in our business strategies and offerings may make it difficult to evaluate our future prospects” on page 14 of this annual report.
- Risks associated with our compliance with the Opinions on Further Alleviating the Burden of Homework and After-School Tutoring for Students in Compulsory Education and the implementation measures. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—Our compliance with the Opinions on Further Alleviating the Burden of Homework and After-School Tutoring for Students in Compulsory Education and the implementation measures issued by the relevant PRC government authorities has materially and adversely affected and may continue to affect our and the VIEs’ business, financial condition, results of operations and prospect” on page 15 of this annual report.
- Risks associated with our limited history in operating on a consolidated basis and operating certain of our products and services. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We have a limited history in operating on a consolidated basis and, particularly, operating certain of our products and services. This may make it difficult to evaluate our future prospects and the risks and uncertainties associated with these products and services” on page 16 of this annual report.
- Risks associated with our ability to develop and apply our technologies to support and expand our product and service offerings in response to the rapid changes in industry trends and users’ preference. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—If we fail to develop and apply our technologies to support and expand our product and service offerings or if we fail to timely respond to the rapid changes in industry trends and users’ preference, we may lose market share and our business may be materially and adversely affected” on page 17 of this annual report.
- Risks associated with our ability to effectively broaden our monetization models. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We may not be effective in broadening our monetization channels” on page 17 of this annual report.
- Risks associated with changes in the user acceptance and market trend of integration of technology and learning. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—The success and future growth of our business will be affected by the user acceptance and market trend of integration of technology and learning” on page 18 of this annual report.
- Risks associated with our ability to improve or expand our product and service offerings in a timely and cost-effective manner. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We may not be able to improve or expand our product and service offerings in a timely and cost-effective manner” on page 18 of this annual report.

- Risks associated with our ability to achieve profitability in the future. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We have a history of net losses and we may not achieve profitability in the future” on page 18 of this annual report.

- Risks associated with our ability to maintain and enhance recognition of our brand. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—Our business depends on the continued success of our brand, and if we fail to maintain and enhance recognition of our brand, our reputation and operating results may be harmed” on page 18 of this annual report.
- Risks associated with our ability to obtain sufficient capital on acceptable terms. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We require a significant amount of capital to fund our operations and respond to business opportunities. If we cannot obtain sufficient capital on acceptable terms, or at all, our business, financial condition and results of operations may be materially and adversely affected” on page 19 of this annual report.
- Risks associated with our significant working capital requirements. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We have significant working capital requirements and have historically experienced working capital deficits. If we continue to experience working capital deficits in the future, our business, liquidity, financial condition and results of operations may be materially and adversely affected” on page 19 of this annual report.
- Risks associated with our long-term and short-term investments. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We face risks associated with our long-term and short-term investments” on page 19 of this annual report.
- Risks associated with a significant interruption in the operations of our suppliers for smart devices. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—A significant interruption in the operations of our suppliers for smart devices could potentially affect our operations and any material misconduct or disputes against our suppliers could potentially harm our business and reputation” on page 22 of this annual report.
- Risks associated with our ability to obtain the approval, filing or other requirements under PRC law in connection with our issuance of securities overseas or maintenance of the listing status of our ADSs. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—The approval, filing or other requirements of the China Securities Regulatory Commission or other PRC government authorities may be required under PRC law in connection with our issuance of securities overseas or maintenance of the listing status of our ADSs, and, if required, we cannot predict whether or for how long we will be able to obtain such approval or complete such filing or other requirements” on page 35 of this annual report.

Risks Related to Our Relationship with NetEase

Risks and uncertainties related to our relationship with NetEase include, but are not limited to, the following:

- Risks associated with our ability to benefit from our business cooperation with NetEase. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Relationship with NetEase—If we are no longer able to benefit from our business cooperation with NetEase, our business may be adversely affected” on page 36 of this annual report.
- Risks associated with having limited experience operating as a stand-alone public company. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Relationship with NetEase—We have limited experience operating as a stand-alone public company” on page 36 of this annual report.
- Risks associated with any negative development in NetEase’s market position, brand recognition or financial condition. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Relationship with NetEase—Any negative development in NetEase’s market position, brand recognition or financial condition may materially and adversely affect us” on page 36 of this annual report.

Risks Related to Our Corporate Structure

Risks and uncertainties related to our corporate structure include, but are not limited to, the following:

- Substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations, and rules relating to the agreements that establish the VIE structure for our operations in China. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure—There are substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations, and rules relating to the agreements that establish the VIE structure for our and the VIEs’ operations in China, including potential future actions by the PRC government, which could affect the enforceability of our contractual arrangements with the VIEs and, consequently, significantly affect our financial condition and results of operations. If the PRC government finds our contractual arrangements non-compliant with relevant PRC laws, regulations, and rules, or if these laws, regulations, and rules or the interpretation thereof change in the future, we could be subject to severe penalties or be forced to relinquish our interests in the VIEs” on page 38 of this annual report.
- Risks associated with failure by the VIEs or their shareholders to perform their obligations under our contractual arrangements with them. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure—Any failure by the VIEs or their shareholders to perform their obligations under our contractual arrangements with them would have a material adverse effect on our business” on page 39 of this annual report.
- Uncertainties with respect to the interpretation and implementation of the enacted Foreign Investment Law. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure—Uncertainties exist with respect to the interpretation and implementation of the enacted Foreign Investment Law and how it may impact our and the VIEs’ business, financial condition and results of operations” on page 40 of this annual report.
- Risks associated with our reliance on contractual arrangements with the VIEs and their shareholders for a large portion of our business operations. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure—We rely on contractual arrangements with the VIEs and their shareholders for a large portion of our business operations which may not be as effective as equity ownership in providing operational control” on page 40 of this annual report.

Risks Related to Doing Business in China

We are also subject to risks and uncertainties related to doing business in China include, but are not limited to, the following:

- Risks associated with changes in China’s economic, political or social conditions or government policies. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—Changes in China’s economic, political or social conditions or government policies could have a material adverse effect on our and the VIEs’ business and operations” on page 42 of this annual report.
- Uncertainties with respect to the PRC legal system, including uncertainties regarding the enforcement of laws, and sudden or unexpected changes in policies, laws and regulations in China. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—Uncertainties with respect to the PRC legal system, including uncertainties regarding the enforcement of laws, and sudden or unexpected changes in policies, laws and regulations in China, could adversely affect us” on page 42 of this annual report.
- Risks associated with the PRC government intervening or influencing our and the VIEs’ operations at any time, or exerting more control over our future overseas offerings or foreign investments in us. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—The PRC government may intervene or influence our and the VIEs’ operations at any time, or may exert more control over our future overseas offerings or foreign investments in us, which could result in a material change in our and the VIEs’ operation and the value of our ADSs” on page 43 of this annual report.
- Risks associated with investors experiencing difficulties in effecting service of legal process, enforcing foreign judgments or bringing actions in China against us based on foreign laws. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—You may experience difficulties in effecting service of legal process, enforcing foreign judgments or bringing actions in China, including Hong Kong, against us or our management named in the annual report based on foreign laws” on page 44 of this annual report.

- Risks associated with our reliance on dividends and other distributions on equity paid by our PRC subsidiaries to fund our cash and financing requirements. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—We may rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material and adverse effect on our ability to conduct our business” on page 44 of this annual report.

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- Risks associated with PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may delay us from making loans or additional capital contributions to our PRC subsidiaries and to make loans to the VIEs, which could materially and adversely affect our liquidity and our ability to fund and expand our and the VIEs’ business” on page 45 of this annual report.
- Risks associated with the inability of PCAOB to conduct inspections over our auditor. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—The PCAOB had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections of our auditor in the past has deprived our investors with the benefits of such inspections” on page 46 of this annual report.
- Risks associated with the potential prohibition from trading in the United States of our ADSs under the Holding Foreign Companies Accountable Act. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—Our ADSs may be prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, in the future if the PCAOB is unable to inspect or investigate completely auditors located in China. The delisting of the ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment” on page 46 of this annual report.
- Risks associated with being classified as a PRC resident enterprise for PRC enterprise income tax purposes. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders” on page 49 of this annual report.
- Risks associated with overseas regulators having difficulties in conducting investigation or collecting evidence within China. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—It may be difficult for overseas regulators to conduct investigation or collect evidence within China” on page 51 of this annual report.

Risks Related to Our Class A Ordinary Shares and Our ADSs

In addition to the risks described above, we are subject to risks related to our Class A ordinary shares and our ADSs, including, but are not limited to, the following:

- Risks associated with the volatility of the trading price of our ADSs. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Class A Ordinary Shares and Our ADSs—The trading price of our ADSs has been volatile and may continue to be volatile, regardless of our operating performance” on page 51 of this annual report.
- Risks associated with your inability to participate in rights offerings. For details, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Class A Ordinary Shares and Our ADSs—You may experience dilution of your holdings due to the inability to participate in rights offerings” on page 56 of this annual report.

Risks Related to Our Business and Industry

The changes in our business strategies and offerings may make it difficult to evaluate our future prospects.

We historically generated a significant portion of our revenue from the Academic AST Business. In 2020, 2021 and 2022, the net revenues from our Academic AST Business accounted for approximately 20.2%, 25.0% and nil of our net revenues (without giving effects to the discontinued operation presentation of our historical financial results as a result of the disposal of our Academic AST Business). In order to fully comply with applicable PRC regulatory requirements adopted by the PRC government in the second half of 2021, we disposed of the Academic AST Business. We completed transition to become a leading technology-focused intelligent learning company, and have developed a comprehensive suite of product and service offerings. We recently introduced a number of new intelligent learning products, such as *Youdao Smart Learning Pad X10* and *Youdao Dictionary Pen X5*.

The significant changes in our business strategies and offerings not only rendered our historical results no longer indicative of our future

performance, they may also have some or all of the following unintended effects:

- Some users, customers and business partners may not receive the changes in our business strategies and offerings in a positive manner, and relationships with these parties may be jeopardized;

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- Our new products and services may not be accepted by our users as we expect;
- Our new products and services may not attract users and customers or generate the revenue required to succeed;
- The underlying assumptions and estimates about our new businesses and the new markets that we attempt to enter into may prove incorrect, which may cause our actual results of operations to fall short of our expectations;
- To the extent we enter into new businesses, our previous operating history may be of limited use for investors to evaluate our future performance and prospects;
- The development of new products and services could be costly and time-consuming and requires us to make significant investments in research and product development, develop new technologies, and increase sales and marketing efforts, all of which may not be successful;
- Expenses will be incurred in the implementation of the new business strategies, which could be substantial; and
- The changes in organizational structure that will be required to support the changes in our business strategies and offerings may lead to dissatisfaction among employees which could make it more difficult for us to retain key employees.

If we are unable to successfully address these risks and uncertainties, our business, financial condition and results of operations could be materially and adversely affected.

Our compliance with the Opinions on Further Alleviating the Burden of Homework and After-School Tutoring for Students in Compulsory Education and the implementation measures issued by the relevant PRC government authorities has materially and adversely affected and may continue to affect our and the VIEs' business, financial condition, results of operations and prospect.

The PRC private education industry, especially the after-school tutoring sector, has experienced intense scrutiny and has been subject to significant regulatory changes recently that had materially and adversely impacted businesses in such industry. In particular, the Opinions on Further Alleviating the Burden of Homework and After-School Tutoring for Students in Compulsory Education jointly promulgated by the General Office of State Council and the General Office of Central Committee of the Communist Party of China on July 24, 2021, or the Alleviating Burden Opinion, sets out a series of operating requirements on after-school tutoring institutions, including, among other things, (i) local government authorities shall no longer approve any new after-school tutoring institutions providing tutoring services on academic subjects for students in compulsory education, or the Academic AST Institutions, and all the existing Academic AST Institutions shall be registered as non-profit institutions, and local government authorities shall no longer approve any new after-school tutoring institutions providing tutoring services on academic subjects for preschool-age children and students in grades 10 to 12; (ii) online after-school tutoring institutions that have filed with the local education administration authorities will be subject to review and re-approval procedures by competent government authorities, and any failure to obtain such approval will result in the cancellation of its previous filing and ICP license; (iii) Academic AST Institutions are prohibited from raising funds by listing on stock markets or conducting any capitalization activities and listed companies are prohibited from investing in Academic AST Institutions through capital markets fund raising activities, or acquiring assets of Academic AST Institutions by paying cash or issuing securities; (iv) foreign capital is prohibited from controlling or participating in any Academic AST Institutions through mergers and acquisitions, entrusted operation, joining franchise or variable interest entities; (v) no advertisements in connection with after-school tutoring services shall be published or broadcasted on the network platforms and billboards displayed on the mainstream media, new media, public space and residential areas; (vi) government authorities will implement risk management and control for the pre-collection of fees by after-school tutoring institutions with requirements such as setting up third-party custodians and risk reserves, and strengthen supervision over loans regarding tutoring services; (vii) online tutoring for preschool-age children is prohibited, and offline academic subjects (including foreign language) tutoring services for preschool-age children is also strictly prohibited; and (viii) non-academic tutoring shall obtain approval from relevant government authorities. See “Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Private Education—Regulation Related to After-school Tutoring and Educational Apps” for more details.

To implement the Alleviating Burden Opinion, in September 2021, the Chinese Ministry of Education, or the MOE, published on its official website that the MOE, together with other government authorities, issued a circular requiring all Academic AST Institutions to complete registration as non-profit by the end of 2021 and a circular requiring all online after-school tutoring institutions that have filed with the local education administration authorities providing tutoring services on academic subjects to obtain the private school operating permit by the end

of 2021, and all Academic AST Institutions and online after-school tutoring institutions shall, before completing such registration or obtaining such permit as applicable, suspend enrollment of students and charging fees. See “Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Private Education—Regulation Related to After-school Tutoring and Educational Apps” for more details.

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Our and the VIEs' business, financial condition, results of operations and prospect have been and may continue to be materially and adversely affected by the actions we have taken to date and may be required to take in the future in compliance with the Alleviating Burden Opinion and its implementation measures. We are closely monitoring the evolving regulatory environment and are making efforts to seek guidance from and cooperate with the government authorities to comply with the Alleviating Burden Opinion and its implementation measures. As of the date of this annual report, we no longer offer AST courses on academic subjects for students receiving compulsory education and for high-school students. With respect to our non-academic after school tutoring services, it is provided in the Alleviating Burden Opinion that local authorities shall identify corresponding competent authorities for different tutoring categories and set forth standards by categories to approve relevant non-academic tutoring institutions. As of the date of this annual report, some local government authorities have issued rules or recently released draft rules for public comments requiring institutions providing non-academic after school tutoring services to obtain private school operating permits and to comply with relevant implementation measures. Since these local rules are recently promulgated, there are substantial uncertainties as to their interpretation, application, and enforcement. We follow internal guidelines to make necessary registrations and filings, except as would not have a material adverse effect on our business, and will use our commercially reasonable efforts to obtain, maintain and renew necessary licenses and permits on a timely basis. However, we may not be able to obtain and maintain all requisite licenses, permits, approvals and filings or pass all requisite assessments in a timely manner or at all.

The State Council promulgated the Amended Implementation Rules for the Private Education Law, or the Amended Implementation Rules, which became effective on September 1, 2021, which provides, among others, that a private school engaging in online education activities using internet technology shall obtain the relevant private school operating permit. See "Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Private Education—The Law for Promoting Private Education and its Implementing Rules." Further, the PRC government authorities have issued several regulations aiming to strengthen its regulation of after-school tutoring institutions, including without limitation the State Council Circular 80, the Opinions on Guiding and Regulating the Orderly and Healthy Development of Educational Mobile Apps, or the Opinions on Educational Apps, the Administrative Measures for After-School Tutoring Materials for Primary and Secondary School Students (for Trial Implementation) and the Administrative Measures for Practitioners of the After-School Tutoring Institutions (for Trial Implementation). The MOE jointly with other government authorities promulgated the Notice on Regulating Non-Academic After-school Training Institutions and the Opinions on Standardizing Non-Academic After-School Tutoring for Primary and Secondary School Students respectively on March 3, 2022 and December 8, 2022, which impose certain compliance requirements on non-academic after school tutoring institutions. See "Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Private Education—Regulation Related to After-school Tutoring and Educational Apps" for more details.

Certain aspects of our existing tutoring services may be deemed to not be in full compliance with the above-mentioned laws and regulations regarding after-school tutoring services. The relevant governmental authorities have significant discretion in interpreting and implementing, and may from time to time conduct inspections on compliance with, such laws and regulations and their related local rules. We have been making and will continue to make efforts to comply with such regulations as well as requirements by relevant governmental authorities during such inspections. However, we cannot assure you that we will be able to comply with such regulations and requirements in a timely manner, or at all. If we fail to comply with these regulations and requirements, we may be subject to fines, regulatory orders to suspend our and the VIEs' operations or other regulatory and disciplinary sanctions, which may materially and adversely affect our and the VIEs' business and results of operations.

In addition, it is uncertain whether and how the PRC government would promulgate additional laws, regulations and guidance regarding the private education industry, including those promulgated to apply more stringent social and ethical standards in the education sector in general, and there is no assurance that we can comply with any such newly promulgated laws and regulations in a timely manner or at all. Failure to regain compliance may materially and adversely affect our and the VIEs' business, financial condition and results of operations. For more details of the relevant laws and regulations, please refer to "Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Private Education."

We have a limited history in operating on a consolidated basis and, particularly, operating certain of our products and services. This may make it difficult to evaluate our future prospects and the risks and uncertainties associated with these products and services.

While the history of our business dates back to 2007 when *Youdao Dictionary* was launched, we acquired control of our principal operating entities through a number of transactions between December 2016 and November 2017. As a result, we have a limited history in operating our businesses on a consolidated basis. For more information about our history and corporate structure, see "Item 4. Information on

the Company—4.A. History and Development of the Company” and “Item 4. Information on the Company—4.C. Organizational Structure.” Additionally, we have a limited history in operating certain of our major products and services. For example, as part of our efforts to transition into a leading technology-focused intelligent learning company, we introduced a series of new product and service offerings in 2022, including *Youdao Smart Learning Pad X10* and *Youdao Dictionary Pen X5*. These new product and service offerings are still in their initial stages of development and have not generated significant revenues and there is no guarantee that they may become key growth drivers of our company in the future. Our limited history may make it difficult for us to evaluate our future prospects and the risks and uncertainties associated with new products and services, and our historical performance may not be indicative of our future prospects and operating results.

Managing a growing portfolio of new products and services involve significant challenges and risks, including those relating to our ability to:

- integrate our operational, administrative and financial systems and internal controls across business segments;
- educate the market on, and monetize the user bases of, our new products and services;
- keep up with the evolving industry standards and market developments;
- secure sufficient financing to support the operations of new products and services and acquired businesses;
- develop and apply technologies necessary to support our expanded product and service offerings;
- respond to changes in the regulatory environment;
- cross-sell our various offerings and achieve synergies and cost savings among different business units; and
- address competitive, regulatory, marketing and other challenges encountered in connection with expansion into new businesses and markets.

If we are unable to successfully address these risks and uncertainties, our business, financial condition and results of operations could be materially and adversely affected.

If we fail to develop and apply our technologies to support and expand our product and service offerings or if we fail to timely respond to the rapid changes in industry trends and users' preference, we may lose market share and our business may be materially and adversely affected.

We believe our technologies are critical to our business, particularly as we strive to make significant business transitions from an online education company focused on K12 sectors to a technology-focused intelligent learning company serving the broader education industry. Over the years, we have developed a number of core technologies to support our comprehensive suite of products and services. We also rely on technologies to build and maintain our IT infrastructure. The intelligent learning industry is subject to rapid technological changes and innovations and is affected by unpredictable product lifecycles and user preferences. Our technologies may become obsolete or insufficient, and we may have difficulties in following and adapting to technological changes in the intelligent learning industry in a timely and cost-effective manner. New technologies and solutions developed and introduced by our competitors could render our offerings less attractive or obsolete thus materially affecting our business and prospects. In addition, our substantial investments in technology may not produce expected results. If we fail to continue to develop, innovate and utilize our technologies or if our competitors develop or apply more advanced technologies, our business, financial condition and results of operations could be materially and adversely affected.

We may not be effective in broadening our monetization channels.

We plan to explore additional opportunities to monetize our user base, content and technologies by, for example, offering additional technology solutions to our existing business customers, provide innovative services and solutions to our new customers, users and/or business partner in response to their evolving business needs, and providing additional subscription options to users to increase their spending with us. If these efforts fail to achieve our anticipated results, we may not be able to increase or maintain our revenue growth. Specifically, in order to increase the number of our users and their levels of engagement and spending, we will need to address a number of challenges, including providing consistently high-quality and effective learning content, products and services; continuing to innovate and stay ahead of our competitors; and improving the effectiveness and efficiency of our sales and marketing efforts. If we fail to address any of these challenges, especially if we fail to offer high-quality learning content, products and services to meet user preferences and demands, we may not be successful in increasing the number of our users and increasing their spending, which could have a material adverse impact on our business, financial condition and results of operations.

In addition, we have limited experience with operating and scaling education digitalization solution business, which could subject us to various challenges. These challenges include those associated with developing and managing relationships with new enterprise customers and business partners who may have needs and preferences different from those of existing users and customers; our ability to properly estimate customer demand and purchasing patterns; and increased costs and quality or compliance issues relating to third-party suppliers and

manufacturers, among other things. If we fail to address any of these challenges, we may fail to develop and scale our new education digitalization solution business, which could harm our business, financial condition and results of operations, especially during the initial stage of our investment in these new businesses.

The success and future growth of our business will be affected by the user acceptance and market trend of integration of technology and learning.

We operate in the intelligent learning industry, and our business model features integrating technology closely with learning to provide a more efficient and engaging learning experience. However, intelligent learning remains a relatively new concept in China, and there are limited proven methods to project user demand or preference or available industry standards on which we can rely. In addition, even with the proliferation of internet and mobile devices in China, we believe that some of our target students may still be inclined to choose traditional, face-to-face courses over online courses as they find the former more intimate and reliable. We cannot assure you that our products and services will continue to be attractive to our users in the future. If our smart devices and services become less appealing to our users, our business, financial condition and results of operations could be materially and adversely affected.

We may not be able to improve or expand our product and service offerings in a timely and cost-effective manner.

We regularly and constantly update our existing product and service offerings and develop new products, services and content to meet our users' demands and the evolving market trends. New products, services and contents may not be accepted by our users as we expect, and we may not be able to introduce them as quickly as our competitors introduce competing offerings. The development of new products, services and content could be costly and time-consuming and requires us to make significant investments in research and product development, develop new technologies, and increase sales and marketing efforts, all of which may not be successful. If we are unsuccessful in improving or expanding our product and service offerings due to financial constraints, failure to attract qualified personnel or other reasons, our business, financial condition and results of operations could suffer.

We expect our education digitalization solutions to become a driver of our growth. Our existing systems and processes were largely designed to support our Academic AST Business that was disposed in February 2022. For the operation of our education digitalization solution business to be successful, we must continue to attract industry talents, and adapt to systems and processes suitable for our enterprise customers and the public sector business environment. If we are unable to do so, we may not be competitive in this market and our education digitalization solution business will not be successful. Our current and future personnel, systems, procedures and controls may not be adequate to support our expanding operations, and consequently our financial condition and operating results may be materially and adversely affected.

We have a history of net losses and we may not achieve profitability in the future.

We had net losses of RMB1,753.4 million, RMB1,026.4 million and RMB745.9 million (US\$108.1 million), respectively, in 2020, 2021 and 2022. We cannot assure you that we will be able to generate net profits in the future. We intend to invest heavily in R&D, product development, as well as sales and marketing efforts. These investments are expected to cause our operating expenses to increase rapidly, including rapid increases in absolute amounts and as a percentage of revenue in the near future, which may result in increased net losses in the near term. These efforts may be more costly than we expect and our net revenues may not increase sufficiently to offset the expenses. We may continue to take actions and make investments that do not generate optimal financial results and may even result in significantly increased operating and net losses in the short term with no assurance that we will eventually achieve our intended long-term benefits or profitability. These factors may materially and adversely affect our business, financial condition and results of operations.

Our business depends on the continued success of our brand, and if we fail to maintain and enhance recognition of our brand, our reputation and operating results may be harmed.

We believe that market awareness of our “Youdao” brand has contributed significantly to our success. Maintaining and enhancing our brand are critical to our efforts to scale our business and attract and retain users. Failure to maintain and enhance our brand recognition could have a material and adverse effect on our business, financial condition and results of operations. We have devoted significant resources to maintaining and promoting our brand, but we cannot assure you that these efforts will be successful. If we are unable to further enhance our brand recognition, or if our brand image is negatively impacted by any negative publicity, our business, financial condition and results of operations may be materially and adversely affected. We may also be negatively impacted by negative publicity associated with NetEase or any member of the NetEase Group; see also “—Any negative development in NetEase’s market position, brand recognition or financial condition may materially and adversely affect us.”

We require a significant amount of capital to fund our operations and respond to business opportunities. If we cannot obtain sufficient capital on acceptable terms, or at all, our business, financial condition and results of operations may be materially and adversely affected.

We may make investments from time to time in content and product development, technologies, branding, sales and marketing to remain competitive. In the past, our principal sources of liquidity included cash from our business operations, loans from the NetEase Group and the proceeds received from the issuance and sale of our ordinary or preferred shares. See “Item 7. Major Shareholders and Related Party Transactions—7.B. Related Party Transactions.” To the extent we need to raise additional capital to fund our operations and respond to business opportunities, we may not be able to do so on terms acceptable to us, or at all. Such financings may be on terms that are dilutive or potentially dilutive to our shareholders, and the prices at which new investors would be willing to purchase our securities may be lower than the current market price per share of our ordinary shares. The holders of new securities may also have rights, preferences, or privileges that are senior to those of existing stockholders. If new financing sources are required, but are insufficient or unavailable, we may need to modify our growth and operating plans and business strategies based on available funding, if any, which would harm our ability to grow our business.

We have significant working capital requirements and have historically experienced working capital deficits. If we continue to experience working capital deficits in the future, our business, liquidity, financial condition and results of operations may be materially and adversely affected.

As a result of changes in our funding position and operating assets and liabilities, we had working capital deficits (being total current liabilities exceeded that of total current assets) of RMB764.3 million and RMB1,308.6 million (US\$189.7 million) as of December 31, 2021 and 2022, respectively. As of December 31, 2022, we had outstanding interest-bearing short-term loans payable to the NetEase Group in the amount of RMB878.0 million (US\$127.3 million), representing approximately 27.6% of our current liabilities. These loans are generally repayable within one year and were advanced to us by the NetEase Group to provide working capital for our business operations. According to the support letter signed by the NetEase Group in April 2023, the NetEase Group will continue to provide financial support for our continuing operations in the next twenty-five months from the date of this annual report. In April 2021, we entered into a three-year US\$300.0 million revolving loan facility agreement with NetEase with maturity dated March 31, 2024. As of December 31, 2022, we had outstanding interest-bearing long-term loans payable to the NetEase Group in the amount of US\$75.0 million (or equivalent to RMB522.3 million), which were drawn down from the above-mentioned facility provided by NetEase. We had further drawn down US\$5.0 million (or equivalent to RMB34.5 million) interest-bearing long-term loans payable to the NetEase Group in 2023 as of the date of this annual report. Despite the foregoing agreements, if we are required by NetEase to repay these loans, our liquidity, financial position and cash flows may be materially and adversely affected.

There is no assurance that we will generate sufficient net income or operating cash flows to meet our working capital requirements and repay our liabilities as they become due, due to a variety of factors. For actions that we plan to take in order to address our working capital deficit, see “Item 5. Operating and Financial Review and Prospects—5.B. Liquidity and Capital Resources.” There can be no assurance that we will be able to successfully take any of these actions in a timely manner, including prudently managing our working capital, or raising additional equity or debt financing on terms that are acceptable to us, particularly in a challenging regulatory environment. Our inability to take these actions as and when necessary could materially adversely affect our liquidity, results of operations, financial condition and ability to operate.

We face risks associated with our long-term and short-term investments.

We currently invest a portion of our capital in long-term and short-term investments. As of December 31, 2022, our long-term investments consisted mainly of equity investments in privately-held companies and limited-partnerships, and our short-term investments consisted mainly of financial products issued by commercial banks in China with a variable interest rate indexed to the performance of underlying assets and a maturity date within one year when purchased. These investments may earn yields substantially lower than anticipated, and the fair values of our investments could fluctuate significantly, due to uncertainties in valuation, among other factors. Any failure to realize the benefits we expected from these investments or significant fluctuations in the fair value of these investments may materially and adversely affect our business and financial results. Impairment losses on long-term investments of nil, RMB7.0 million and RMB10.3 million (US\$1.5 million) were recognized in 2020, 2021 and 2022, respectively.

If we fail to retain existing or attract new advertising customers, our business, financial condition and results of operations may be materially and adversely affected.

We generated net revenues of RMB472.9 million, RMB593.9 million and RMB672.4 million (US\$97.5 million) in 2020, 2021 and 2022, respectively, from online marketing services. We cannot assure you that we will be able to retain our advertising customers in the future, attract new advertising customers continuously or be able to retain our advertising customers at all. If our advertising customers find that they can generate better returns elsewhere, or if our competitors provide better advertising services to suit our advertising customers' goals, we may lose our advertising customers. In addition, third parties may develop and use certain technologies to block the display of our advertising customers' advertisements on our platform, which may in turn cause us to lose advertising customers and adversely affect our results of operations. Since many of our advertising customers are not bound by long-term contracts, they may lessen or discontinue advertising arrangements with us easily without incurring material liabilities. Failure to retain existing advertising customers or attract new advertising customers may materially and adversely affect our financial condition and results of operations. In addition, a significant portion of our brand advertising customers have entered into advertising agreements with us through various third-party advertising agencies. As a result, we rely on third-party advertising agencies for sales to, and collection of payment from, our brand advertisers. The financial soundness of our advertising customers and advertising agencies may affect our collection of accounts receivable.

Divestitures of businesses and assets may have a material and adverse effect on our business and financial condition.

We have undertaken, and may undertake in the future, divestitures or other disposal transactions in connection with certain of our businesses and assets. In order to fully comply with applicable PRC regulatory requirements adopted by the PRC government in the second half of 2021, we disposed of the Academic AST Business. These decisions are largely based on our management's assessment of the business models and likelihood of success of these businesses as well as our responses to changes in the regulatory requirements. However, our judgment could be inaccurate, and we may not achieve the desired strategic and financial benefits from these transactions. Our financial results could be adversely affected by the impact from the loss of earnings associated with divested businesses. These factors may make it difficult for investors and analysts to predict our future earnings potential based on our historical financial performance.

We may also be exposed to negative publicity as a result of the potential misconception that the divested business is still part of our consolidated group, particularly if such divested business is subject to substantial regulatory risks. On the other hand, we cannot assure you that the divesting business would not pursue opportunities to provide services to our competitors or other opportunities that would conflict with our interests. If any conflicts of interest that may arise between the divesting business and us cannot be resolved in our favor, our business, financial condition, results of operations could be materially and adversely affected.

Furthermore, reducing or eliminating our ownership interests in these businesses might negatively affect our operations, prospects, or long-term value. We may lose access to resources or know-how that would have been useful in the development of our own business. Our ability to diversify or expand our existing businesses or to move into new areas of business may be reduced, and we may have to modify our business strategy to focus more exclusively on areas of business where we already possess the necessary expertise. We may sell our interests too early, and thus forego gains that we otherwise would have received had we not sold. Selecting businesses to dispose of, finding buyers for them and negotiating prices for what may be relatively illiquid ownership interests with no easily ascertainable fair market value will also require significant attention from our management and may divert resources from our existing business, which in turn could have an adverse effect on our business operations.

We face intense competitions, which could lead to pricing pressure and loss of market share and materially and adversely affect our business, financial condition and results of operations.

We operate in the competitive intelligent learning industry and are faced with intense competition in every aspect of our business, including competition for users, user enrollments, technology and talents. For example, we face competition for our tutoring service offerings from online and offline providers of courses and educational content. We also face competition for our knowledge tools from providers of online dictionary and translation solutions and for our smart device offerings from manufacturers of smart hardware or devices. We also compete with advertisers and their budgets, not only with internet companies, but also with other types of advertising media, such as newspapers, magazines, and television. Some of our current and future competitors may have greater brand recognition and financial and other resources than we do, which may make it harder for us to maintain or gain market share. If we are not able to effectively compete against current or future competitors, our business, financial condition and results of operations could suffer. Increased competition may result

in pricing pressure, reducing our ability to charge higher prices for our products and services. The increasingly competitive landscape may also result in longer and more complex sales cycles with a prospective paying user and cause us to lose market share to our competitors, any of which could materially and negatively affect our business, financial condition and results of operations.

Users may decide not to use our products and services for a number of reasons, including a perceived lack of improvement in their academic performance or general dissatisfaction with our offerings, which may adversely affect our business, financial condition and results of operations.

The success of our business depends on our ability to deliver high-quality learning experiences and help users achieve their learning objectives. We may not always be able to meet our users' expectations due to a variety of reasons, many of which are outside of our control. We may face increased user dissatisfaction due to our users' perceptions of our failure to help them achieve their anticipated goals, their overall dissatisfaction with the quality of our offerings. These factors may contribute to reduced user engagement and increased challenges in attracting prospective users, all of which may materially and adversely affect our business, financial condition and results of operations.

If we fail to protect our intellectual property rights, our brand and business may suffer.

We rely on a combination of patent, copyright, trademark and trade secret laws and contractual restrictions on disclosure to protect our intellectual property rights. Although we seek to obtain copyright, patent or other appropriate protection for our intellectual property when applicable, it is possible that we may not be able to do so successfully or that the protections we have obtained may not be sufficient to protect all of our intellectual property rights. In particular, we primarily rely on our learning content developed in-house to provide high-quality intelligent learning services. Despite our efforts to protect our proprietary education content and other intellectual property rights, unauthorized parties may attempt to copy or duplicate our intellectual property or otherwise use our intellectual properties without obtaining our consent. Monitoring unauthorized use of our intellectual property is difficult and costly, and we cannot be certain that the steps we have taken will effectively prevent misappropriation of our intellectual properties. If we are not successful in protecting our intellectual property rights, our business and results of operations may be adversely affected.

We may from time to time be subject to infringement claims relating to intellectual properties of third parties.

We cannot assure you that our content, product and service offerings or our technologies do not or will not infringe upon copyrights or other intellectual property rights (including but not limited to trademarks, patents, know-how) held by third parties. We may encounter disputes from time to time over rights and obligations concerning intellectual properties, and we may not prevail in those disputes.

We have adopted policies and procedures to prohibit our users, employees and business partners from infringing upon third-party copyright or other intellectual property rights. However, we cannot assure you that they will not, against our policies, use third-party copyrighted materials or intellectual property without proper authorization in our tutoring services or via any medium through which we provide our services. To the extent that our users, employees and business partners use intellectual property rights or copyrights owned by others, disputes may arise as to the rights in related know-how and inventions and other proprietary assets. In addition, we may incur liability for unauthorized duplication or distribution of materials used in our tutoring services. Although we have set up rules and procedures to enable copyright owners to provide us with notice of alleged infringement, given the volume of content available that we offer, it is not possible for us to identify and remove or disable all potentially infringing content that may exist, and we may encounter intellectual property claims. If any third-party infringement claims are brought against us, we may be forced to divert management's time and other resources from our business and operations to defend against these claims, or may be prohibited from using such intellectual property or relevant contents, and we may incur licensing or usage fees or be forced to develop alternatives of our own. As a result, our reputation may be harmed and our business and financial performance may be materially and adversely affected.

We may not be able to maintain or increase our tuition levels.

Our results of operations are affected by the pricing of our tutoring service offerings. We determine the tuition for our tutoring services primarily based on the market demand for our course offerings, the cost of our operations, the pricing charged by our competitors, and the general economic conditions, among other things. We cannot guarantee that we will be able to maintain or increase our tuition level in the future without adversely affecting the demand for our tutoring service offerings.

Our quarterly operating results may fluctuate, which makes our results of operations difficult to predict and may cause our quarterly results of operations to fall short of expectations.

Our quarterly operating results have fluctuated in the past and may continue to fluctuate depending on a number of factors, many of

which are out of our control. Our operating results tend to be seasonal. For example, we tend to experience strong sale of our smart devices in the third and fourth quarters as a result of the commencement of school term in September and various e-commerce promotions in November and December. In addition, we historically generated lower net revenues from online marketing services in the first quarter as advertisers tend to reduce their online advertisement and marketing spending in the first quarter each year due to the Chinese New Year holidays. For these reasons, comparing our operating results on a consecutive quarter-over-quarter basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. Our quarterly and annual net revenues and costs and expenses as a percentage of our revenues in a given period may be significantly different from our historical or projected rates and our operating results in future quarters may fall below expectations.

If we are unable to manage our growth or execute our strategies effectively, our business and prospects may be materially and adversely affected.

Our business has grown substantially in recent years, and we expect to continue to drive the growth of our business in the future. However, our historical performance may not be indicative of our future growth or financial results. For example, we have experienced rapid growth in our net revenues generated from tutoring services. We cannot assure you that we will be able to manage our growth at the same rate as we did in the past, or avoid any decline in the future. In addition, as we continue to diversify our product and service offerings, we will need to continuously enhance and upgrade our technology, optimize our branding, sales and marketing efforts, and expand, train and manage our faculty members and R&D personnel. All these efforts will require significant managerial, financial and human resources. We cannot assure you that we will be able to effectively manage our growth, that our current technology, infrastructure and operation capabilities will be adequate and successful to support our expanding operations, or that our strategies and new business initiatives will be executed successfully. If we are not able to manage our growth or execute our strategies effectively, our expansion may not be successful and our business, financial condition and results of operations may be materially and adversely affected.

Any significant disruption in our technology infrastructure or our failure to maintain the satisfactory performance, security and integrity of our technology infrastructure would reduce visitor traffic and may materially and adversely affect our business, reputation, financial condition and results of operations.

The proper functioning of our technology infrastructure is essential to our business. We heavily rely on our technology infrastructure to operate our business. We may encounter problems when upgrading our technology infrastructure including our online platform, mobile apps, systems and software. The development, upgrades and implementation of our technology infrastructure are complex processes. Issues not identified during pre-launch testing of new services may only become evident when such services are made available to our entire customer base. Therefore, our technology infrastructure may not function properly if we fail to detect or solve technical errors in a timely manner. In addition, our systems are potentially vulnerable to damage or interruption as a result of natural disasters, power or telecommunications failures, air quality issues, environmental conditions, computer viruses or attempts to harm our systems, criminal acts and similar events. These and other events may lead to the unavailability of the interruption of tutoring service delivery, the availability of our tools and services and apps, or other events which would affect our operations. If we experience frequent or persistent service disruptions, our reputation may be damaged and our users may switch to our competitors, which may have a material adverse effect on our business, financial condition and results of operations.

Refunds or potential refund disputes of our tuition fees may negatively affect our business, financial condition and results of operations.

The refund policy of our tutoring services is based on a number of factors, including the total length of the course, whether the course has started when the refund request is made, among other things. For more information, see “Item 4. Information of the Company—4.B. Business Overview—How We Generate Revenues—Tuition fees.” The number of refund requests and the amount of refunds could be affected by a number of factors, many of which are beyond our control. These factors include, without limitation to, student dissatisfaction with the quality of our tutoring service offerings, a perceived decline in our faculty’s teaching quality due to the departure of popular instructors, privacy concerns relating to our products and services, negative publicity regarding us or tutoring service providers in general, and any change or development in PRC laws and regulations with respect to fees and tuitions charged by tutoring services providers like us. Any refund payments that we may be required to make to our users, as well as the expenses we could incur for processing refunds and resolving refund disputes, could be substantial and could materially and adversely affect our business, financial condition and results of operations. A high volume of refunds and refund disputes may also generate negative publicity that could harm our reputation.

A significant interruption in the operations of our suppliers for smart devices could potentially affect our operations and any material misconduct or disputes against our suppliers could potentially harm our business and reputation.

Certain of our suppliers for smart devices are subject to various regulations and are required to obtain and maintain various qualifications, government licenses and approvals. If any of these suppliers loses its qualification or eligibility because of its failure to comply with regulatory requirements, we may not be able to find alternative suppliers in a timely manner or at all. Moreover, general economic conditions could also adversely affect the financial viability of our suppliers, resulting in their inability to provide raw materials and/or services used in our operations. For instance, we may experience difficulty in sourcing suppliers at reasonable prices if the global chip supply shortage

continues or deteriorates. A significant interruption in the operations of our suppliers could potentially affect our operations and any material misconduct or disputes against our suppliers could potentially harm our business and reputation.

In addition, suppliers may fail to supply raw materials and/or services that meet our quality standards. If we are unable to identify alternative materials or suppliers and secure approval for their use in a timely manner, our business, operations and the development of new products and/or services could be harmed. Any change in suppliers could require significant effort or investment in circumstances where the items supplied are integral to product performance or incorporate unique technology, and the loss of any existing supply contract could have a material adverse effect on us.

We are subject to credit risks associated with our education digitalization solutions.

Customers of our education digitalization solutions are typically provided with a relatively longer credit term. As a result, our education digitalization solutions generally expose us to greater credit risks than our other businesses. They may default in their payments to us from time to time. We conduct regular reviews of our credit exposure to customers of our education digitalization solutions. Credit risk arises from events and circumstances beyond our control or events which are difficult to anticipate or detect, such as an economic downturn or deterioration in the financial position of our customers. Credit risks associated with customers of our education digitalization solutions could have a material adverse effect on our business, financial condition and results of operations. If customers of our education digitalization solutions fail to timely pay us, require us to extend credit to them beyond our customary payment periods, or otherwise default on their payments, we may be unable to generate sufficient cash flow to meet our cash flow requirements and we would need to make provisions for doubtful debts or incur bad debt write-offs, which may adversely affect our financial performance. Disputes which arise due to default in payment by customers of our education digitalization solutions may also incur time and substantial costs in claiming for such payments and thus affect our liquidity, business, financial condition, results of operations and prospects.

Failure to maintain optimal inventory levels could increase our inventory holding costs or cause us to lose sales.

Maintaining optimal inventory levels is critical to our financial health. As of December 31, 2021 and 2022, the balance of our inventory accounted for approximately 11.3% and 12.4%, respectively, of our total current assets. We are exposed to inventory risks as a result of a variety of factors beyond our control, including changing consumption trends and preferences and launches of competing products. Moreover, for stocking purposes, we generally forecast demand for the products we sell ahead of the actual time of sale. We cannot assure you that we can accurately predict these trends and events and maintain adequate levels of inventory at all times. An unexpected decrease in the market demand for the products we sell could lead to excessive or obsolescent inventory, and we may write down the cost of our inventories to the estimated net realizable value due to slow-moving merchandise and damaged goods, which in turn may materially and adversely affect our financial condition and results of operations. On the other hand, inventory under-stock may cause us to lose sales and our business, financial condition, results of operations and prospects may also be materially and adversely affected.

We may be adversely affected by any negative publicity concerning us and our business, shareholders, affiliates, directors, officers, instructors, teaching assistants and other employees, business partners, and the industry in which we operate, regardless of its accuracy, that could harm our reputation and business.

Negative publicity about us and our business, shareholders, affiliates, directors, officers, instructors, teaching assistants and other employees, business partners, as well as the industry in which we operate, can harm our brand and reputation. Negative publicity concerning these parties could be related to a wide variety of matters, including, but are not limited to:

- heightened regulatory scrutiny affecting our businesses and industry;
- alleged misconduct, improper activities or non-compliance with applicable laws, regulations and rules committed by our directors, officers, instructors, teaching assistants and other employees, including misrepresentation made by our employees to prospective users during sales and marketing activities and providing prospective users with advertising and promotional content that allegedly constitute unfair competition;
- false or malicious allegations or rumors about us or our directors, shareholders, affiliates, officers, instructors, teaching assistants and other employees;
- complaints by our users about our products and services;
- security breaches of private user or transaction data;

- employment-related claims relating to alleged employment discrimination, wage and hour violations; and
- government and regulatory investigations or penalties resulting from our failure to comply with applicable laws and regulations.

See also “—Any negative development in NetEase’s market position, brand recognition or financial condition may materially and adversely affect us.”

In addition to traditional media, there has been an increasing use of social media platforms and similar devices in China, including instant messaging applications, social media websites and other forms of internet-based communications that provide individuals with access to a broad audience of consumers and other interested persons. The availability of information on instant messaging applications and social media platforms is virtually immediate as is its impact without affording us an opportunity for redress or correction. The opportunity for dissemination of information, including inaccurate information, is seemingly limitless and readily available. Information concerning our company, shareholders, directors, officers, instructors, teaching assistants and other employees may be posted on such platforms at any time. The risks associated with any such negative publicity or incorrect information cannot be completely eliminated or mitigated and may materially harm our reputation, business, financial condition and results of operations.

Our reputation and business may be adversely impacted by our users’ and employees’ misconduct, improper activities and misuse of our content, products and services, many of which are beyond our control.

Our courses undergo multiple rounds of internal review before being broadly released. We regularly and actively monitor our live courses and other content and communications to ensure that we are able to identify content that may be deemed inappropriate or violation of laws, regulations and government policies. When any inappropriate or illegal content is identified, we promptly remove the content. However, since we have limited control over the real-time and offline behavior of our users, instructors and teaching assistants, to the extent any improper behavior is associated with our content, products and services, our ability to protect our reputation may be limited. In addition, if any of our users, instructors and teaching assistants suffer or allege to have suffered harm following contact initiated through our products and services, we may face civil lawsuits or other liabilities. In response to allegations of illegal or inappropriate activities, PRC government authorities may intervene and hold us liable for non-compliance with PRC laws and regulations concerning the dissemination of information on the internet and subject us to administrative penalties or other sanctions, such as requiring us to restrict or discontinue our content, products or services. As a result, our business may suffer and our reputation, business, financial condition and results of operations may be materially and adversely affected.

We are also exposed to the risk of other types of employee fraud or other misconduct. Other types of employee misconduct include intentionally failing to comply with government regulations, engaging in unauthorized activities and misrepresentation to our prospective users during sales and marketing activities, which could harm our reputation. It is not always possible to deter employee misconduct, and the precautions we take to prevent and detect this activity may not be effective in controlling unknown or unmanaged risks or losses, which could harm our business, financial condition and results of operations.

We cannot assure you that we will not be subject to liability claims or legal or regulatory liability for any inappropriate or illegal content, which could subject us to liabilities and cause damages to our reputation.

Although we implement various monitoring procedures to identify and remove inappropriate or illegal content, we cannot assure you that there will be no inappropriate or illegal content included in our content offerings. Our content offerings include not only content we develop in-house, such as our proprietary quiz banks, but also content generated by our users. We may face civil, administrative or criminal liability or legal or regulatory sanctions, such as requiring us to restrict or discontinue our content, products or services, if an individual or corporate, governmental or other entity believes that any of the content offerings violates any laws, regulations or governmental policies or infringes upon its legal rights. Even if such a claim were not successful, defending such a claim may cause us to incur substantial costs. Moreover, any accusation of inappropriate or illegal content in our content offerings could lead to significant negative publicity, which could harm our reputation, business, financial condition and results of operations.

Privacy concerns or security breaches relating to our platform could result in economic loss, damage our reputation, deter users from using our products, and expose us to legal penalties and liability.

We collect, process, and store significant amounts of data concerning our users, business partners and employees, including personal and transaction data involving our users. While we have taken reasonable steps to protect such data, there is no guarantee that such steps will be successful. Techniques used to gain unauthorized access to data and systems, disable or degrade service, or sabotage systems, are constantly evolving, and we may be unable to anticipate, deter, or prevent such techniques or otherwise implement adequate preventative

measures to avoid unauthorized access to such data or our systems.

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Like all internet services, our service is vulnerable to software bugs, computer viruses, internet worms, break-ins, phishing attacks, attempts to overload servers with denial-of-service, and similar attacks and disruptions from the unauthorized use of our and third-party computer systems, any of which could lead to system interruptions, delays, or shut-downs and cause the loss of critical data or the unauthorized access to our data or our users' data. Computer malware, viruses, and computer hacking and phishing attacks have become more prevalent in our industry. Any functions that we use to facilitate interactivity with other internet platforms have the potential to increase the scope of access that hackers may have to our user accounts. Though it is difficult to determine what, if any, harm may directly result from any specific interruption or attack, our failure to maintain performance, reliability, security and availability of our products and technical infrastructure to the satisfaction of our users may harm our reputation and ability to retain existing users and attract new users. Although we have in place systems and processes that are designed to protect our and our users' data, we cannot assure you that such measures will provide absolute security. We may incur significant costs in protecting against cyber-attacks, and if an actual or perceived breach of security occurs to our systems or a third party's systems, we could be required to expend significant resources to mitigate the breach of security and to address matters related to any such breach, including notifying users or regulators.

We are subject to a variety of laws and other obligations regarding data protection, any failure to comply with applicable laws and obligations could have a material adverse effect on our business, financial condition and results of operations.

We are subject to various regulatory requirements relating to the security and privacy of data, including restrictions on the collection and use of personal information and requirements to take steps to prevent personal data from being divulged, stolen, or tampered with. See "Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Internet Information Security and Privacy Protection." Regulatory requirements regarding the protection of data are constantly evolving and can be subject to differing interpretations or significant change, making the extent of our responsibilities in that regard uncertain. For example, the PRC Cyber Security Law became effective in June 2017, but there are great uncertainties as to the interpretation and application of the law. It is possible that those regulatory requirements may be interpreted and applied in a manner that is inconsistent with our practices. Further, the CAC issued the Provisions on the Cyber Protection of Children's Personal Information on August 22, 2019, which took effect on October 1, 2019. The Provisions on the Cyber Protection of Children's Personal Information requires, among others, that network operators who collect, store, use, transfer and disclose personal information of children under the age of 14 shall establish special rules and user agreements for the protection of children's personal information, inform the children's guardians in a noticeable and clear manner, and shall obtain the consent of the children's guardians. In addition, the PRC regulatory authorities have recently taken steps to strengthen the regulation on data protection and conducted several rounds of relevant inspections.

In addition, the PRC regulatory authorities have recently taken steps to strengthen the regulation on cybersecurity and data protection. On June 10, 2021, the Standing Committee of the National People's Congress promulgated the PRC Data Security Law, effective on September 1, 2021. On August 20, 2021, the Standing Committee of the National People's Congress promulgated the PRC Personal Information Protection Law, which has become effective on November 1, 2021. On January 4, 2022, the CAC published the Revised Cybersecurity Review Measures, effective on February 15, 2022 and repeal the Cybersecurity Review Measures promulgated on April 13, 2020. Such Measures further restate and expand the applicable scope of the cybersecurity review. Pursuant to the Cybersecurity Review Measures, critical information infrastructure operators that procure internet products and services, and network platform operators engaging in data processing activities, must be subject to the cybersecurity review if their activities affect or may affect national security. In addition, network platform operators holding over one million users' personal information shall apply with the Cybersecurity Review Office for a cybersecurity review before conducting any public offering in a foreign country. On August 17, 2021, the state council promulgated the Regulations on Protection of Critical Information Infrastructure, which became effective on September 1, 2021. On January 4, 2022, the CAC published the Administrative Provisions on Internet Information Service Algorithm Recommendation on its website, effective on March 1, 2022. On July 7, 2022, the CAC published the Security Assessment Measures for Outbound Data Transfer, which became effective on September 1, 2022. These newly promulgated laws and regulations reflect PRC government further attempts to strengthen the legal protection for the national network security, data security, the security of key information infrastructure and the security of personal information protection. See "Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Internet Information Security and Privacy Protection" for details on regulations over data protection and privacy in the PRC.

We believe, to the best of our knowledge, our business operations do not violate any of the above PRC laws and regulations currently in force in all material aspects. We have been taking and will continue to take reasonable measures to comply with such laws, regulations, announcement, provisions and inspection requirements; however, as such laws, regulations, announcement and provisions are relatively new, it remains uncertain how these announcements and provisions will be implemented. We cannot assure you we can adapt our operations to it

in a timely manner. Evolving interpretations of such laws, regulations, announcements and provisions or any future regulatory changes might impose additional restrictions on us generating and processing personal and behavioral data. We may be subject to additional regulations, laws and policies adopted by the PRC government to apply more stringent social and ethical standards in data privacy resulting from the increased global focus on this area. To the extent that we need to alter our business model or practices to adapt to these announcement and provisions and future regulations, laws and policies, we could incur additional expenses.

Any failure, or perceived failure, by us, or by our third-party partners, to maintain the security of our user data or to comply with applicable privacy, cybersecurity, data security and personal information protection laws, regulations, policies, contractual provisions, industry standards, and other requirements, may result in civil or regulatory liability, including governmental or data protection authority enforcement actions and investigations, fines, penalties, enforcement orders requiring us to cease operating in a certain way, litigation, or adverse publicity, and may require us to expend significant resources in responding to and defending allegations and claims. Moreover, claims or allegations that we have failed to adequately protect our users' data, or otherwise violated applicable privacy, cybersecurity, data security and personal information protection laws, regulations, policies, contractual provisions, industry standards, or other requirements, may result in damage to our reputation and a loss of confidence in us by our users or our partners, potentially causing us to lose users, advertisers, content providers, other business partners and revenues, which could have a material adverse effect on our business, financial condition and results of operations.

We may face risks and uncertainties with respect to the licensing requirement for internet audio-visual programs.

According to relevant PRC laws and regulations, no entities or individuals may provide internet audio-visual program services, which includes making and editing of audio-visual programs concerning educational content and broadcasting such content to the general public online, without a License for Online Transmission of Audio-Visual Programs issued by the State Administration of Press, Publication, Radio, Film and Television, or the SAPPRFT (currently known as National Radio and Television Administration), or its local bureaus or completing the relevant registration procedures with SAPPRFT or its local bureaus. And only state-owned or state-controlled entities are eligible to apply for a License for Online Transmission of Audio-Visual Programs. See "Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Online Transmission of Audio-Visual Programs." However, there are still significant uncertainties relating to the interpretation and implementation of the Administrative Provisions on Internet Audio-Visual Program Service, or the Audio-Visual Program Provisions, in particular, the scope of "internet audio-visual programs."

We offer live courses in live-streaming format where the live audio/video data are transmitted through the platforms between the specific recipients instantly without any further redaction. In addition, we also offer video recordings of live-streaming courses and certain other audio-video contents on our online platforms to our users. We believe the nature of the raw data we transmit distinguishes us from general providers of internet audio-visual program services. However, we cannot assure you that the competent PRC government authorities will not ultimately take a view contrary to our opinion. Provisional Implementation of the Tentative Categories of Internet Audio-Visual Program Services promulgated by the SAPPRFT, or the Categories, describe "internet audio-visual program services" in a very broad, vague manner and are unclear as to whether the contents we offer or are available on our platforms fall into the definition of "internet audio-visual programs." The PRC government may find that our activities mentioned above or any other content offered on our mobile apps fall within the definition of "internet audio-visual programs" and thus are subject to the licensing requirement for internet audio-visual programs. We currently do not hold a License for Online Transmission of Audio-Visual Programs. If the PRC government determines that our content should be considered as "internet audio-visual programs" for the purpose of the Audio-Visual Program Provisions, we may be required to obtain a License for Online Transmission of Audio-Visual Programs. We are, however, not eligible to apply for such license since we are not a state-owned or state-controlled entity. If this were to occur, we may be subject to penalties, fines, legal sanctions or an order to suspend the provision of our relevant content.

Our failure to obtain, maintain or renew other licenses, approvals, permits, registrations or filings necessary to conduct our and the VIEs' operations in China could have a material adverse impact on our and the VIEs' business, financial condition and results of operations.

A number of PRC regulatory authorities, such as the SAIC, the CAC, the Ministry of Industry and Information Technology (MIIT), the SAPPRFT, the Ministry of Civil Affairs, and the Ministry of Human Resources and Social Welfare, oversee different aspects of our business operations, and we are required to obtain a wide range of licenses, approvals, permits, registrations and filings required for conducting our business in China, and we cannot assure you that we have obtained all of them or will continue to maintain or renew all of them.

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We may be deemed to provide certain services or conduct certain activities and thus be subject to certain licenses, approvals, permits, registrations and filings due to the lack of official interpretations of certain terms under internet related PRC regulations and laws. For example, certain content posted on our mobile apps and/or websites, including our course materials, may be deemed as “internet cultural products,” and our use of such content may be regarded as “internet cultural activities,” thus we may be required to obtain an Internet Culture Business Operating License for provision of such content through our mobile apps and websites. In addition, due to the ambiguity of the definition of “online publishing service,” the online distribution of content, including our course materials, through our mobile apps, may be regarded as an “online publishing service” and therefore we may be required to obtain an Online Publishing License. In addition, we deliver certain courses in live-streaming format on our mobile apps which the relevant authorities may regard as a live-streaming platform and may thus require us to make necessary filings as a live-streaming platform. We or third parties post information on our mobile apps and websites that may be viewed as news information, and the release of such information on our mobile apps and websites may be deemed as Internet news information services and therefore require us to obtain Internet news information licenses. In addition, our current service offerings may be deemed to constitute “online education activities” under the Amended Implementation Rules, as a result of which we may be required to obtain a private school operating permit. In February 2022, the MOE issued its 2022 Work Plan which specifies that MOE will provide guidance to local authorities to distinguish non-academic tutoring institutions among sports, cultural art, science and technology and other categories and clarify corresponding competent authorities. Nevertheless, it remains uncertain whether the PRC government authorities would issue more explicit interpretation and rules or promulgate new laws and regulations on permits for online learning services. There can be no assurance that we will be able to successfully obtain corresponding permits in a timely manner or at all. If the government authorities deem printing and providing physical education materials to users as “publication distribution” under Administrative Provisions on the Publications Market, we may be required to obtain the Publication License. Moreover, the Opinions on Educational Apps require all of educational apps to be filed with competent provincial regulatory authorities in spheres of education. Following the release of the Opinions on Educational Apps, we filed our educational apps with relevant government authorities. However, to implement the Alleviating Burden Opinion, the MoE requires all educational apps that have already been filed with the relevant government authorities to be re-filed to make sure such educational apps comply with relevant compliance requirements under the Alleviating Burden Opinion, and we are in the process of re-filing our educational apps. As of the date of this annual report, we have not been subject to any material fines or other form of material regulatory or administrative penalties or sanctions due to the lack of any licenses, approvals, permits, registrations and filings. However, we cannot assure you that the PRC government authorities will not take a different view or will not require us to obtain any additional licenses, approvals, permits, registrations and filings, including without limitation to those mentioned above, in the future. Furthermore, although we have obtained a Value-Added Telecommunications Business Operating License, also known as the ICP License, that specifically permits us to provide certain internet information services, due to uncertainties with respect to the interpretation of relevant laws and regulations by PRC government authorities, we cannot assure you that our ICP License covers all the telecommunication services we currently provide, and in the event that our ICP License is found not to cover all the telecommunication services we currently provide, we may be required to obtain an additional Value-Added Telecommunications Business Operating License or to update our existing ICP License. On April 11, 2023, the CAC published the Administrative Measures for Generative Artificial Intelligence Services (Draft for Comment), or the Generative AI Services Measures, for public comments. The Generative AI Services Measures provides, among others, that relevant providers shall, prior to providing services to the public using generative AI products, file an application for security assessment with the CAC in accordance with the Provisions on the Security Assessment of Internet-based Information Services Characterized by Public Opinions or Capable of Social Mobilization, and complete the filing procedures in accordance with the Administrative Provisions on Internet Information Service Algorithm Recommendation. As of the date of this annual report, the Generative AI Services Measures are released for public comments only and it remains uncertain when it will become effective and whether it will be adopted in the form initially proposed. Due to the substantial uncertainty with respect to the promulgation and implementation of the Generative AI Services Measures, we cannot assure you that we may complete relevant assessment and filings as required thereunder in a timely manner or at all. Besides, we may develop new business lines or change the operations of certain of our current business among our PRC subsidiaries or VIEs, which may require us to obtain additional licenses, approvals, permits, registrations and filings while there can be no assurance that we are able to successfully obtain such licenses, approvals, permits, registrations and filings in a timely manner or at all. Failures to obtain or update such license, approvals, permits, registrations, assessment or filings may subject us to fines and other regulatory, civil or criminal liabilities, and we may be ordered by the competent government authorities to suspend our services, which will materially and adversely affect our business operation.

In addition, there can be no assurance that we will be able to maintain our existing licenses, approvals, registrations or permits necessary to provide our current online services in China, renew any of them when their current term expires, or update existing licenses or obtain additional licenses, approvals, permits, registrations or filings necessary for our business expansion from time to time. If we fail to do so, our business, financial condition and operational results may be materially and adversely affected.

Our business is subject to the risks of international operations.

We have launched products in overseas markets, such as *U-Dictionary*. As we plan to expand our operations in additional emerging markets and regions, we may have to adapt our business models to the local market due to various legal requirements and market conditions. Our international operations and expansion efforts have resulted and may continue to result in increased costs and are subject to a variety of risks, including increased competition, uncertain enforcement of our intellectual property rights, changes and evolutions in overseas market conditions and user preferences, the complexity of compliance with foreign laws and regulations and political or social unrest or economic instability.

Our international operations may also be negatively affected by any deterioration of the political and economic relations between China and other countries and sanctions and export controls administered by the government authorities in the foreign countries in which we operate, and other geopolitical challenges. For example, in September 2020, amid heightened tensions between China and India, the Indian government announced a ban on certain mobile apps offered by Chinese companies in India, over alleged data and privacy concerns. Our app offered in India, namely *U-Dictionary*, is among the banned list of apps. In addition, compliance with applicable Chinese and foreign laws and regulations, such as import and export requirements, anticorruption laws, tax laws, foreign exchange controls and cash repatriation restrictions, data privacy requirements, labor laws, restrictions on foreign investment, anti-competition regulations and anti-long-arm jurisdiction-related laws and regulations such as the one newly promulgated in China, increases the costs and risk exposure of doing business in foreign jurisdictions. Although we have implemented policies and procedures to comply with these laws and regulations, a violation by us or our employees, contractors or agents could nevertheless occur. In some cases, compliance with the laws and regulations of one country could violate the laws and regulations of another country. Violations of these laws and regulations could materially and adversely affect our brand, international growth efforts and business.

We may not be successful in developing or maintaining relationships with key participants in the mobile industry or in developing or offering products and services that operate effectively with these operating systems, networks, devices and standards.

We make our products and services available on both iOS and Android systems across a variety of mobile devices. We depend on the interoperability of our products and services with popular devices and mobile operating systems that we do not control. Any changes in devices or their systems that degrade the functionality of our products and services or give preferential treatment to competitive products or services could adversely affect usage of our products and services. We may not be successful in developing relationships with key participants in the mobile industry or in developing products and services that operate effectively with their operating systems, networks, devices and standards. We also cooperate with key participants in the mobile industry to display our products and services on the front page of their respective app stores and recommend our products and services to help us attract prospective users. If we cannot maintain such relationships at reasonable costs or at all, we may not get sufficient exposure on their respective platforms, which will impair our ability to acquire traffic. Moreover, we are subject to the terms, policies and conditions of the app stores. If any of the key participants finds us to be in violation of the terms, policies and conditions of its app store, it may seek economic damages from us or remove our products from its app store. Such incident would also harm our relationship with the key participant. Further, if the number of systems, networks and devices for which we develop our products and services increases, it will result in an increase in our costs and expenses, and adversely affect our net margin and results of operations.

If we are unable to conduct sales and marketing activities cost-effectively, our business, financial condition and results of operations may be materially and adversely affected.

We rely on our sales and marketing efforts to attract new users and customers and expand users' and customers' use of our products and services. Our sales and marketing activities may not be well received by the market and may not result in the levels of sales that we anticipate. We also may not be able to retain or recruit a sufficient number of experienced sales and marketing personnel, or to train newly hired sales and marketing personnel, which we believe is critical to implementing our sales and marketing strategies cost-effectively. Further, sales and marketing approaches and tools in China's intelligent learning industry are evolving rapidly. This requires us to continually enhance our sales and marketing approaches and experiment with new methods to keep pace with industry developments and user preferences. Failure to engage in sales and marketing activities in a cost-effective manner may reduce our market share, cause our net revenues to decline, negatively impact our profitability, and materially harm our business, financial condition and results of operations.

Our success depends on the continuing efforts of our senior management team and other key employees.

We depend on the continued contributions of our senior management and other key employees. The loss of the services of any of our senior management or other key employees could harm our business. Competition for qualified talents in China is intense. If one or more of our senior management or other key employees are unable or unwilling to continue in their present positions, we may not be able to find replacements in a timely manner, or at all, and our business may be disrupted. Moreover, if any member of our senior management team or any of our other key personnel joins a competitor or forms or invests in a competing business, we may lose know-how, key professionals and other valuable resources, which in turn may cause our customers to choose to use the products or services of that competitor instead of ours. Our future success is also dependent on our ability to attract a significant number of qualified employees and retain existing key employees. If we are unable to do so, our business and growth may be materially and adversely affected. Our need to significantly increase the number of

our qualified employees and retain key employees may cause us to materially increase compensation-related costs, including share-based compensation.

We may be the subject of detrimental conduct by third parties such as our competitors, including complaints to regulatory agencies and the public dissemination of malicious assessments of our business, which could have a negative impact on our reputation.

We have been, and in the future may be, the target of anticompetitive, harassing or other detrimental conduct by third parties including our competitors. Such conduct may include complaints, anonymous or otherwise, to regulatory agencies regarding our operations, accounting, business relationships, business prospects and business ethics. Additionally, allegations, directly or indirectly against us, might be posted online by anyone, whether or not related to us, on an anonymous basis. We may be subject to government or regulatory investigation as a result of such third-party conduct and may be required to expend significant time and incur substantial costs to address such third-party conduct, and there is no assurance that we will be able to conclusively refute each of the allegations within a reasonable period of time, or at all. Our reputation may also be materially negatively affected as a result of the public dissemination of anonymous allegations or malicious statements about our business.

We might not be able to successfully pursue synergy from acquisitions or to achieve the benefits we expect from recent and future investments, strategic alliance and acquisitions.

We may form strategic alliances or make strategic investments and acquisitions from time to time to complement and enhance our existing business. Any transactions that we enter into could be material to our financial condition and results of operations. The process of integrating with another company or integrating an acquired company, business, asset or technology may create unforeseen operating difficulties and expenditures. The areas where we face risks include:

- significant costs of identifying and consummating acquisitions;
- diversion of management time and focus from operating our business to acquisition integration challenges;
- difficulties in integrating the management, technologies and employees of the acquired businesses;
- implementation or remediation of controls, procedures and policies at the acquired company;
- coordination of products and services, engineering and sales and marketing functions;
- retention of employees from the businesses we acquire;
- liability for activities of the acquired company before the acquisition;
- potential significant impairment losses related to goodwill and other intangible assets acquired or investments in other businesses;
- litigation or other claims in connection with the acquired company;
- significant expenses in obtaining approvals for the transaction from shareholders and relevant government authorities in China;
- in the case of overseas acquisitions, the need to integrate operations across different cultures and languages and to address the particular economic, currency, political and regulatory risks associated with specific countries; and
- failure to achieve the intended objectives, benefits or revenue-enhancing opportunities.

Our failure to address these risks or other problems encountered in connection with our future acquisitions and investments could cause us to fail to realize the anticipated benefits of such acquisitions or investments, incur unanticipated liabilities and expenses and harm our business generally. We may also experience difficulties in integrating our operations with the newly invested or acquired businesses, implementing our strategies or achieving expected levels of revenues, profitability, productivity or other benefits. Moreover, if the businesses we acquire or invest in or our strategic alliances or partnerships do not subsequently generate the anticipated financial performance or if any goodwill impairment test triggering event occurs, we may need to revalue or write down the value of goodwill and other intangible assets in connection with such transactions, which would harm our business, financial condition and results of operations.

In addition, we may be unable to identify appropriate strategic investment or alliance targets when it is necessary or desirable to make such acquisition or investment to remain competitive or to expand our business. Even if we identify an appropriate target, we may not be able to negotiate the terms of the transaction successfully. In the event that we do not have control over the companies in which we only have minority stake, we cannot ensure that these companies will at all times comply with applicable laws and regulations in their business operations. Material non-compliance by our investees may cause substantial harms to our reputations and the value of our investments.

We may be required to recognize impairment losses in connection with our goodwill and other intangible assets.

We have in the past acquired and invested in, and may continue to acquire and invest in, other businesses that we believe will help expand or enhance our existing offerings or achieve our strategic objectives. To the extent we acquire other companies and pay a consideration that exceeds the fair value of identifiable fair value of consideration assets and liabilities that the acquired company possesses, the excess of the purchase price over the fair value of the acquired identifiable assets and the assumed liabilities will be recorded as a goodwill. As of December 31, 2022, our goodwill amounted to RMB109.9 million (US\$15.9 million), which was primarily derived from our historical acquisition, and our intangible assets amounted to RMB1.5 million (US\$0.2 million). In accordance with U.S. GAAP, goodwill and indefinite-lived intangible assets shall be tested for impairment at least annually. Intangible assets with finite lives shall be tested for impairment if their carrying amounts may not be recoverable. If testing indicates that goodwill or intangible assets are impaired, their carrying

amounts will be written down based on fair values. Any impairment losses of our goodwill and other intangible assets could adversely affect our financial position and results of operations. No impairment charge of goodwill was recognized in 2020, 2021 or 2022. Impairment losses on intangible assets from business combination of RMB56.8 million was recognized in 2021. No impairment loss in connection with our other intangible assets was recognized in 2020 or 2022.

We may be subject to litigations, allegations, complaints and investigations from time to time arising out of our operations, and our reputation and operations may be adversely affected.

We have been and may continue to be involved in legal and other disputes in the ordinary course of our business, including allegations against us for potential infringement of third party's copyrights or other intellectual property rights, as well as customer complaints in relation to our refund policy, course content, the quality of our devices and data security and other dissatisfactions. We might be involved in governmental investigations for advertisement or content posted on our platforms in the future. Any claims against us, with or without merit, could be time consuming and costly to defend or litigate, divert our management's attention and resources or harm our brand equity. If a lawsuit or governmental proceeding against us is successful, we may be required to pay substantial damages or fines and/or enter into royalty or license agreements that may not be based upon commercially reasonable terms, or we may be unable to enter into such agreements at all. We may also lose, or be limited in, the rights to offer some of our content, products and services or be required to make changes to our content offerings or business model. As a result, the scope of our content, product and service offerings could be reduced, which could adversely affect our ability to attract new users, harm our reputation and have a material adverse effect on our business, financial condition and results of operations.

Our advertising and promotional content may subject us to penalties and other administrative actions.

Under PRC advertising, pricing and anti-unfair competition laws and regulations, we are obligated to monitor our advertising and promotional content to ensure that such content is true and accurate and in full compliance with applicable laws and regulations. For example, the PRC Pricing Law provides that an operator is prohibited from using false or misunderstanding pricing methods to induce consumers or other operators into trading with it. In addition, education or training advertisement are further prohibited from containing content such as guarantee for passing of examination or the effect of education or training, recommendation and/or endorsement by scientific research institutes, academic institutions, educational organizations, industry associations, professionals or beneficiaries using their name or image. Further, the Alleviating Burden Opinion provides that no advertisements in connection with after-school tutoring services shall be published or broadcasted on the network platforms and billboards displayed on the mainstream media, new media, public space and residential areas. Violation of these laws and regulations may subject us to penalties, including fines, confiscation of our advertising income, orders to cease dissemination of the advertisements and orders to publish an announcement correcting the misleading information. In circumstances involving serious violations by us, PRC government authorities may force us to terminate our advertising operations or revoke our licenses.

Relevant PRC regulatory authorities have significant discretion in interpreting and implementing the advertising, pricing and anti-unfair competition. We cannot assure you that all the content contained in our advertisements is true and accurate as required by, and complies in all aspects with, the advertising, pricing and anti-unfair competition laws and regulations, we also cannot assure you that we can rectify such content which is deemed not in compliance with such laws and regulations in a timely manner or at all, especially given the uncertainty in the interpretation of these PRC laws and regulations. If we are found to be in violation of applicable PRC advertising laws and regulations, we may be subject to penalties and our reputation may be harmed, which may negatively affect our business, financial condition, results of operations and prospects.

If we fail to maintain an effective internal control over financial reporting, we may be unable to accurately and timely report our results of operations, meet our reporting obligations or prevent fraud and investor confidence in our company and the market price of our ADSs may decline.

As a public company, we are subject to the Sarbanes-Oxley Act of 2002. Section 404 of the Sarbanes-Oxley Act of 2002 requires us to evaluate and determine the effectiveness of our internal control over financial reporting, report any material weaknesses in such internal controls and provide a management report on internal control over financial reporting.

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Our management has concluded that our internal control over financial reporting is effective as of December 31, 2022. See “Item 15. Controls and Procedures—Management’s Annual Report on Internal Control over Financial Reporting.” Our independent registered public accounting firm has issued an attestation report, which has concluded that our internal control over financial reporting is effective as of December 31, 2022. However, there is no assurance that we or our auditor will not identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses and render our internal control over financial reporting ineffective for any future periods. If we fail to maintain the adequacy of our internal control over financial reporting, as these standards are modified, supplemented or amended from time to time, we may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404. However, if we fail to maintain effective internal control environment, we could suffer material misstatements in our financial statements and fail to meet our reporting obligations, which could cause investors to lose confidence in our reported financial information. This could in turn limit our access to capital markets, harm our results of operations, and lead to a negative impact on the trading price of our ADSs. Additionally, ineffective internal control over financial reporting could expose us to increased risk of fraud or misuse of corporate assets and subject us to potential delisting from the NYSE, regulatory investigations and civil or criminal sanctions.

We have granted, and may continue to grant, share incentives, which may result in increased share-based compensation expenses.

We adopted two share incentive plans in February 2015 and April 2023, which we refer to as the 2015 Plan and 2023 Plan, respectively, for the purpose of granting share-based compensation awards to employees, officers, directors and consultants to incentivize their performance and promote the success of our business. The 2015 Plan was amended in April 2018.

We account for compensation costs for share-based awards using a fair-value based method and recognize expenses in our consolidated statements of operations in accordance with U.S. GAAP. As of March 31, 2023, options to purchase a total of 4,408,892 ordinary shares are outstanding under the 2015 Plan. In addition, we have recorded share-based compensation expenses of RMB2.7 million, RMB1.0 million and RMB1.5 million (US\$0.2 million), respectively, allocated to us based on equity awards granted to our employees under NetEase’s RSU Plan, in 2020, 2021 and 2022. See “Item 7. Major Shareholders and Related Party Transactions—7.B. Related Party Transactions—Transactions with NetEase and Other Related Parties.”

We believe the granting of share-based awards is of significant importance to our ability to attract and retain key personnel and employees, and we will continue to grant share-based awards in the future. As a result, our expenses associated with share-based compensation may increase. We may also continue to record share-based compensation allocated to us based on equity awards granted to our employees under NetEase’s incentive plans, which may cause our share-based compensation to increase. Any increase in our share-based compensation may have an adverse effect on our results of operations.

Failure to make adequate contributions to various employee benefits plans as required by PRC regulations may subject us to penalties.

Companies operating in China are required to participate in various government-sponsored employee benefit plans, including certain social insurance, housing funds and other welfare-oriented payment obligations, and contribute to the plans in amounts equal to certain percentages of salaries, including bonuses and allowances, of employees up to a maximum amount specified by the local government from time to time at locations where our employees are based. The requirement of employee benefit plans has not been implemented consistently by the local governments in China given the different levels of economic development in different locations. To efficiently administrate the contribution of employment benefit plans of our employees in some cities, we engage third-party agents to make the contribution for our employees. Our failure to make contributions to various employee benefit plans and in complying with applicable PRC labor-related laws may subject us to late payment penalties, and we could be required to make up the contributions for these plans as well as to pay late fees and fines. If we are subject to late fees or fines in relation to the underpaid employee benefits, our financial condition and results of operations may be adversely affected.

Increases in labor costs in the PRC may adversely affect our business and results of operations.

The PRC Labor Contract Law has reinforced the protection of employees who, under the PRC Labor Contract Law, have the right, among others, to have written employment contracts, to enter into employment contracts with no fixed term under certain circumstances, to receive overtime wages and to terminate or alter terms in labor contracts. Furthermore, the PRC Labor Contract Law sets forth additional

restrictions and increases the costs involved with dismissing employees. To the extent that we need to significantly reduce our workforce, the PRC Labor Contract Law could adversely affect our ability to do so in a timely and cost-effective manner, and our results of operations could be adversely affected. In addition, for employees whose employment contracts include non-competition terms, the PRC Labor Contract Law requires us to pay economic compensation to the laborer on a monthly basis during the term of non-competition after such employment is terminated, which will increase our operating expenses.

In addition, we are required by PRC laws and regulations to make social insurance registration and open housing fund account with relevant governmental authorities and pay various statutory employee benefits, including pensions, housing fund, medical insurance, work-related injury insurance, unemployment insurance and maternity insurance to designated government agencies for the benefit of our employees. The relevant government agencies may examine whether an employer has made adequate payments of the requisite statutory employee benefits, and those employers who fail to make adequate payments may be subject to late payment fees, fines and/or other penalties. If we fail to make adequate social insurance and housing fund contributions, we may be subject to fines and legal sanctions, and our business, financial condition and results of operations may be adversely affected. We expect that our labor costs, including wages and employee benefits, will continue to increase. Unless we are able to pass on these increased labor costs to our customers by increasing the prices of our products and services, our financial condition and results of operations would be materially and adversely affected.

We face certain risks relating to the real properties that we lease.

We lease real properties from third parties primarily for our office use in China, and the lease agreements for most of these leased properties have not been registered with the PRC government authorities as required by PRC law. Although the failure to do so does not in itself invalidate the leases, we may be ordered by the PRC government authorities to rectify such non-compliance and, if such non-compliance were not rectified within a given period of time, we may be subject to fines imposed by PRC government authorities ranging from RMB1,000 and RMB10,000 for those of our lease agreements that have not been registered with the relevant PRC government authorities.

As of the date of this annual report, we are not aware of any regulatory or governmental actions, claims or investigations being contemplated or any challenges by third parties to our use of our leased properties the lease agreements of which have not been registered with the government authorities. However, we cannot assure you that the government authorities will not impose fines on us due to our failure to register any of our lease agreements, which may negatively impact our financial condition.

In addition, some of the ownership certificates or other similar proof of certain leased properties have not been provided to us by the relevant lessors. Therefore, we cannot assure you that such lessors are entitled to lease the relevant real properties to us. If the lessors are not entitled to lease the real properties to us and the owners of such real properties decline to ratify the lease agreements between us and the respective lessors, we may not be able to enforce our rights to lease such properties under the respective lease agreements against the owners. As of the date of this annual report, we are not aware of any claim or challenge brought by any third parties concerning the use of our leased properties without obtaining proper ownership proof. If our lease agreements are claimed as null and void by third parties who are the real owners of such leased real properties, we could be required to vacate the properties, in the event of which we could only initiate the claim against the lessors under relevant lease agreements for indemnities for their breach of the relevant leasing agreements. We cannot assure you that suitable alternative locations are readily available on commercially reasonable terms, or at all, and if we are unable to relocate our operations in a timely manner, our operations may be interrupted.

Any change, disruption, discontinuity in the features and functions of major social networks in China could severely limit our ability to continue growing our user base, and our business may be materially and adversely affected.

Our success depends on our ability to maintain our large user or customer bases and attract new users and customers. We leverage social networks in China as a tool for user acquisition and engagement. For example, we leverage *Weixin/WeChat* to enable users to access our services. To the extent that we fail to leverage such social networks, our ability to attract or retain users may be severely harmed. If any of these social networks makes changes to its functions or support unfavorable to us, or stops offering its functions or support to us, we may not be able to locate alternative platforms of similar scale to provide similar functions or support on commercially reasonable terms in a timely manner, or at all. Furthermore, we may fail to establish or maintain relationships with additional social network operators to support the growth of our business on economically viable terms, or at all. Any interruption to or discontinuation of our relationships with major social network operators may severely and negatively impact our ability to continue growing our user base, and any occurrence of the circumstances mentioned above may have a material adverse effect on our business, financial condition and results of operations.

Our operations depend on the performance of the internet infrastructure and telecommunications networks in China.

The successful operation of our business depends on the performance of the internet infrastructure and telecommunications networks in China. Almost all access to the internet is maintained through state-owned telecommunications operators under the administrative control and

regulatory supervision of the MIIT. Moreover, we have entered into contracts with various subsidiaries of a limited number of telecommunications service providers at provincial level and rely on them to provide us with data communications capacity through local telecommunications lines. We have limited access to alternative networks or services in the event of disruptions, failures or other problems with China's internet infrastructure or the telecommunications networks provided by telecommunications service providers. Our platform regularly serves a large number of users and advertisers. With the expansion of our business, we may be required to upgrade our technology and infrastructure to keep up with the increasing traffic on our platform. However, we have no control over the costs of the services provided by telecommunications service providers. If the prices we pay for telecommunications and internet services rise significantly, our results of operations may be materially and adversely affected. If internet access fees or other charges to internet users increase, our user traffic may decline and our business may be harmed.

A severe or prolonged downturn in the Chinese or global economy could materially and adversely affect our business and financial condition.

The COVID-19 has had a severe and negative impact on the Chinese and the global economy since 2020. Even before the outbreak of COVID-19, the global macroeconomic environment had been presenting challenges. The growth of the PRC economy has slowed down since 2012 compared to the previous decade and the trend may continue or even deteriorate, with the added disruption caused by COVID-19. There is considerable uncertainty over effectiveness or the long-term effects of the massive expansionary monetary and fiscal policies adopted in response to COVID-19 by the central banks and financial authorities of some of the world's leading economies, including the United States and China. There have been concerns over unrest and terrorist threats in the Middle East, Europe and Africa, the relationship between China and the United States and other countries, particularly with respect to the increasingly tense political and economic relationship between the United States and China, as well as the recent banking turmoil in the United States and the European Union. Economic conditions in China are sensitive to global economic conditions, as well as changes in domestic economic and political policies and the expected or perceived overall economic growth rate in China. Any prolonged slowdown in the global or Chinese economy may have a negative impact on our business, results of operations and financial condition. Our users may reduce or delay spending with us, while we may have difficulty expanding our customer base fast enough, or at all, to offset the impact of decreased spending by our existing customers.

We are subject to third-party payment processing-related risks.

We accept payments through major third-party online payment channels in China, as well as bank transfers and credit cards. We may also be susceptible to fraud, user data leakage and other illegal activities in connection with the various payment methods we offer. In addition, our business depends on the billing, payment and escrow systems of the third-party payment service providers to maintain accurate records of payments by customers and collect such payments. If the quality, utility, convenience or attractiveness of these payment processing and escrow services declines, or if we have to change the pattern of using these payment services for any reason, the attractiveness of our company could be materially and adversely affected. We are also subject to various rules, regulations and requirements, regulatory or otherwise, governing electronic funds transfers which could change or be reinterpreted to make it difficult or impossible for us to comply. If we fail to comply with these rules or requirements, we may be subject to fines and higher transaction fees and become unable to accept the current online payments solutions from our customers, and our business, financial condition and results of operations could be materially and adversely affected. Business involving online payment services is subject to a number of risks that could materially and adversely affect third-party online payment service providers' ability to provide payment processing and escrow services to us, including:

- dissatisfaction with these online payment services or decreased use of their services;
- increasing competition, including from other established Chinese internet companies, payment service providers and companies engaged in other financial technology services;
- changes to rules or practices applicable to payment systems that link to third-party online payment service providers;
- breach of customers' personal information and concerns over the use and security of information collected from buyers;
- service outages, system failures or failures to effectively scale the system to handle large and growing transaction volumes;
- increasing costs to third-party online payment service providers, including fees charged by banks to process transactions through online payment channels, which would also increase our costs of revenues; and
- failure to manage funds accurately or loss of funds, whether due to employee fraud, security breaches, technical errors or otherwise.

We currently do not have any business insurance coverage.

Insurance companies in China currently do not offer as extensive an array of insurance products as insurance companies in more developed economies. Currently, we do not have any business liability or disruption insurance to cover our operations. We have determined that the costs of insuring for these risks and the difficulties associated with acquiring such insurance on commercially reasonable terms make it impractical for us to have such insurance. Any uninsured business disruptions may result in our incurring substantial costs and the diversion of resources, which could have an adverse effect on our results of operations and financial condition.

Increasing focus with respect to environmental, social and governance matters may impose additional costs on us or expose us to additional risks. Failure to comply with the laws and regulations on environmental, social and governance matters may subject us to penalties and adversely affect our business, financial condition and results of operations.

The PRC government and public advocacy groups have been increasingly focused on environment, social and governance (“ESG”) issues in recent years, making our business more sensitive to ESG issues and changes in governmental policies and laws and regulations associated with environment protection and other ESG-related matters. Investor advocacy groups, certain institutional investors, investment funds, and other influential investors are also increasingly focused on ESG practices and in recent years have placed increasing importance on the implications and social cost of their investments. Regardless of the industry, increased focus from investors and the PRC government on ESG and similar matters may hinder access to capital, as investors may decide to reallocate capital or to not commit capital as a result of their assessment of a company’s ESG practices. Any ESG concern or issue could increase our regulatory compliance costs. If we do not adapt to or comply with the evolving expectations and standards on ESG matters from investors and the PRC government or are perceived to have not responded appropriately to the growing concern for ESG issues, regardless of whether there is a legal requirement to do so, we may suffer from reputational damage and the business, financial condition, and the price of our ADSs could be materially and adversely effected.

We face risks related to natural disasters, extreme weather conditions, health epidemics, such as the outbreak of COVID-19, and other catastrophic incidents, which could significantly disrupt our operations.

China has in the past experienced significant natural disasters, including earthquakes, extreme weather conditions, as well as health scares related to epidemic diseases, and any similar event could materially impact our business in the future. If a disaster or other disruption were to occur in the future that affects the regions where we operate our business, our operations could be materially and adversely affected due to loss of personnel and damages to property. Even if we are not directly affected, such a disaster or disruption could affect our operations or financial condition.

In addition, our business could be affected by public health epidemics, such as the outbreak of avian influenza, severe acute respiratory syndrome, or SARS, Zika virus, Ebola virus, coronavirus or other disease. If any of our employees is suspected of having contracted a contagious disease, we may be required to apply quarantines or suspend our operations. Furthermore, any future outbreak may restrict economic activities in affected regions, resulting in reduced business volume, temporary closure of our offices or otherwise disrupt our business operations and adversely affect our results of operations.

The COVID-19 pandemic has affected us in both negative and positive ways. On the one hand, as a result of the pandemic, some of our advertising customers have experienced temporary business interruptions and a reduction in their online marketing spending, which has had a negative impact on our online advertising services. We also incurred additional costs and expenses as we implemented COVID-related safety protocols and working practices. On the other hand, we believe the COVID-19 pandemic has significantly accelerated the shift from offline to online learning approaches. This has led to increased market demand for quality online products and services and is expected to benefit our business in the long run. The pandemic has also accelerated the adoption of emerging “touchless” technologies, driving the demand for our education digitalization solutions. As China began to relax its “zero-COVID” policy at the end of 2022, most of the travel restrictions and quarantine requirements were lifted in December 2022. As a result of the policy shift, an increasing number of our sales and marketing staff, operation staff, instructors as well as our users were infected with COVID-19 in the following months, which significantly affected the sales of our services and products in December 2022 and the first quarter of 2023. Nevertheless, we do not believe the COVID-19 pandemic has had a material adverse impact on our overall business, results of operations, liquidity, financial condition and growth prospects. The impacts of COVID-19 on our future results of operations will depend on future developments, which cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19, among others. In addition, to the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in this section entitled “Risk Factors,” such as those relating to our ability to improve or expand our product and service offerings and to retain existing or attract new advertising customers, among other things.

Our user metrics and other estimates are subject to inaccuracy in measuring our operating performance, which may harm our reputation.

We continually review MAUs and certain other metrics to evaluate growth trends, measure our performance and make strategic decisions. These metrics are calculated using internal data and may not be indicative of our future operating performance. While these

numbers are based on what we believe to be reasonable estimates for the applicable period of measurement, there are inherent challenges in measuring how our website and mobile application are used across a large user base. For example, the actual number of individual users, is likely to be lower than that of our MAUs, potentially significantly, due to various reasons such as access to our products and services through multiple mobile devices. We have limited ability to validate or confirm the accuracy of information provided during the user registration process to ascertain whether a new user account created was actually created by an existing user who is registering duplicative accounts. As a result, the number of our MAUs may overstate the number of individuals who access our products and services. In addition, there may be variation in the degree to which MAU is a relevant metric in measuring the user engagement from one product or service to another, due to the different nature and engagement patterns of our various smart devices and learning services. For example, a one-time user of our *Youdao Dictionary* mobile app and a frequent user taking one of our tutoring services are counted equally as one MAU. If investors do not perceive our operating metrics to accurately represent our operating performance, or if we discover material inaccuracies in our operating metrics, our business, financial condition and results of operations may be materially and adversely affected.

The approval, filing or other requirements of the China Securities Regulatory Commission or other PRC government authorities may be required under PRC law in connection with our issuance of securities overseas or maintenance of the listing status of our ADSs, and, if required, we cannot predict whether or for how long we will be able to obtain such approval or complete such filing or other requirements.

The Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A Rules, purport to require offshore special purpose vehicles that are controlled by PRC companies or individuals and that have been formed for the purpose of seeking a public listing on an overseas stock exchange through acquisitions of PRC domestic companies or assets to obtain CSRC approval prior to publicly listing their securities on an overseas stock exchange. The interpretation and application of the regulations remain unclear. If CSRC approval under the M&A Rules is required, it is uncertain whether it would be possible for us to obtain the approval, and any failure to obtain or delay in obtaining CSRC approval for our future issuance of securities overseas would subject us to sanctions imposed by the CSRC and other PRC regulatory agencies.

Furthermore, we conduct our business primarily through our PRC subsidiaries and the VIEs and their subsidiaries in China. Our and the VIEs' operations in China are governed by PRC laws and regulations. The PRC government has significant oversight and discretion over the operation of our and the VIEs' business, and it may influence our and the VIEs' operations, which could result in a material adverse change in our and the VIEs' operations and the value of our ADSs. The PRC government has recently indicated an intent to exert more oversight over overseas offerings by and/or foreign investment in China-based issuers like us. For example, on July 6, 2021, relevant PRC government authorities promulgated the Opinions on Strictly Cracking Down on Illegal Securities Activities, which emphasized the need to strengthen the administration over "illegal securities activities" and the supervision on overseas listings by China-based companies, and proposed to take effective measures, such as promoting the construction of relevant regulatory systems to deal with the risks and incidents faced by China-based overseas-listed companies, although such opinions did not specify the definition of "illegal securities activities." Such opinions further provided that the special provisions of the State Council on overseas offerings and listings by those companies limited by shares will be revised and therefore the duties of domestic industry competent authorities and regulatory agencies will be clarified.

On February 17, 2023, the CSRC released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies, or the Overseas Listing Trial Measures, and five supporting guidelines, which came into effect on March 31, 2023. Pursuant to the Overseas Listing Trial Measures, domestic companies that seek to offer or list securities overseas, both directly and indirectly, should fulfill the filing procedure and report relevant information to the CSRC. In addition, domestic companies that have been listed on a foreign stock exchange prior to the effective date of the Overseas Listing Trial Measures are required to file with the CSRC within three working days after such domestic company completes a security offering on the foreign stock exchange on which its securities have been listed. Since the Overseas Listing Trial Measures was newly promulgated, its interpretation, application and enforcement remain unclear. If the filing procedure with the CSRC under the Overseas Listing Trial Measures is required for any future offerings, listing or any other capital raising activities by us, it is uncertain whether we could complete the filing procedure in a timely manner, or at all.

In addition, on January 4, 2022, the CAC published the Revised Cybersecurity Review Measures, which became effective on February 15, 2022. The Revised Cybersecurity Review Measures provide that a critical information infrastructure operator purchasing network products and services, and platform operators carrying out data processing activities, which affect or may affect national security, shall apply for cybersecurity review and that a platform operator with more than one million users' personal information aiming to list abroad must apply for cybersecurity review. There are substantial uncertainties as to the interpretation, application, and enforcement of the Revised Cybersecurity Review Measures and whether to conduct a security offering or maintain our listing status on the NYSE will be subject to the cybersecurity review procedures.

We believe, to the best of our knowledge, our and the VIEs' business operations do not violate any of the above PRC laws and regulations currently in force in all material respects. However, we cannot guarantee that new rules or regulations promulgated in the future will not impose any additional requirement on us or otherwise tightening the regulations on companies with a VIE structure. If the CSRC or other relevant PRC regulatory agencies subsequently determine that prior approval or any filing is required for any of our future offerings of securities overseas or maintenance of the listing status of our ADSs, we cannot guarantee that we will be able to obtain such approval in a timely manner, or at all. The CSRC or other PRC regulatory agencies also may take actions requiring us, or making it advisable for us, not to proceed with such offering or maintain the listing status of our ADSs. If we proceed with any of such offering or maintain the listing status of our ADSs without obtaining the CSRC's or other PRC regulatory agencies' approval to the extent it is required, or if we are unable to comply with any new approval requirements which might be adopted for offerings that we have completed prior to the publication of the above-

referenced opinions, we may face regulatory actions or other sanctions from the CSRC or other PRC regulatory agencies. These regulatory agencies may impose fines and penalties on our and the VIEs' operations in China, limit our ability to pay dividends outside of China, limit our operating privileges in China, delay or restrict the repatriation of the proceeds from offering of securities overseas into China or take other actions that could have a material adverse effect on our and the VIEs' business, financial condition, results of operations and prospects, as well as the trading price of the ADSs.

Furthermore, if there are any other approvals, filings and/or other administration procedures to be obtained from or completed with the CSRC or other PRC regulatory agencies as required by any new laws and regulations for any of our future proposed offering of securities overseas or the listing of the ADSs, we cannot assure you that we can obtain the required approval or complete the required filings or other regulatory procedures in a timely manner, or at all. Any failure to obtain the relevant approvals or complete the filings and other relevant regulatory procedures may subject us to regulatory actions or other sanctions from the CSRC or other PRC regulatory agencies, which may have a material adverse effect on our and the VIEs' business, financial condition or results of operations. In addition, implementation of industry-wide regulations affecting our and the VIEs' operations could cause the value of our securities to significantly decline. Therefore, investors of our company and our and the VIEs' business face potential uncertainty from actions taken by the PRC government affecting our and the VIEs' business.

Risks Related to Our Relationship with NetEase

If we are no longer able to benefit from our business cooperation with NetEase, our business may be adversely affected.

NetEase, our controlling shareholder, is a leading internet technology company in China. Our business has benefited significantly from NetEase's brand name and strong market position and user bases, and we cooperate with NetEase in a number of areas, such as user acquisition and IT infrastructure. In addition, we have also received funding support from the NetEase Group. We cannot assure you that we will be able to continue to benefit from our cooperative relationships with NetEase in the future. To the extent that we cannot maintain our relationships with NetEase on terms favorable to us, or at all, we will need to find replacement business partners and services providers, which may not be done in a timely manner and/or on commercially reasonable terms, or at all, and we may lose access to key strategic assets, which could result in material and adverse effects on our business and results of operations.

We have limited experience operating as a stand-alone public company.

We have limited experience conducting our operations as a stand-alone public company. We are now a stand-alone public company, we will face enhanced administrative and compliance requirements, which may result in substantial costs. In addition, since we are a public company, our management team will need to develop the expertise necessary to comply with the regulatory and other requirements applicable to public companies, including those relating to corporate governance, internal control, listing standards, and investor relations issues. While we are a company controlled by NetEase, we are indirectly subject to the requirements to maintain an effective internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002. However, as a stand-alone public company, our management will have to evaluate our internal control system independently with new thresholds of materiality, and to implement necessary changes to our internal control system. We cannot guarantee that we will be able to do so in a timely and effective manner.

Any negative development in NetEase's market position, brand recognition or financial condition may materially and adversely affect us.

We have benefited, and expect to continue to benefit, significantly from NetEase's strong brand recognition, which enhances our reputation and credibility. Any negative publicity associated with NetEase or any member of the NetEase Group or any negative development with respect to NetEase's market position, financial condition or compliance with applicable legal or regulatory requirements will likely have an adverse impact on our reputation and brand. In addition, we collaborate with the NetEase Group to attract user traffic from their products and services to our offerings, and if NetEase's market position weakens, the effectiveness of our sales and marketing through NetEase may be impaired, which may in turn have a negative impact on our business, financial condition and results of operations. See "Item 7. Major Shareholders and Related Party Transactions—7.B. Related Party Transactions" for more information about our related party transactions with the NetEase Group.

NetEase, our controlling shareholder, has had and will continue to have effective control over the outcome of shareholder actions in our company. The interests of NetEase may not be aligned with the interests of our other shareholders and holders of the ADSs.

As of March 31, 2023, NetEase, our controlling shareholder beneficially owned 8.1% of our issued and outstanding Class A ordinary shares and 74.1% of our issued and outstanding Class B ordinary shares, representing 66.2% of our total voting power (excluding 1,755,011 Class A ordinary shares repurchased in the form of ADSs). NetEase's voting power gives it the power to control certain actions that require shareholder approval under Cayman Islands law, our memorandum and articles of association and NYSE requirements, including authorization of a plan of merger, changes to our memorandum and articles of association and an increase of the authorized share capital.

NetEase's voting control may cause transactions to occur that might not be beneficial to you as a holder of the ADSs and may prevent transactions that could have been beneficial to you. For example, NetEase's voting control may prevent a transaction involving a change of control in us, including transactions in which you as a holder of the ADSs might otherwise receive a premium for the ADSs over the then-current market price. In addition, NetEase is not prohibited from selling the controlling interest in us to a third party and may do so without your approval and without providing for a purchase of your ADSs. If NetEase is acquired, otherwise undergoes a change of control or is subject to a corporate restructuring, an acquirer, successor or other third party may be entitled to exercise the voting control and contractual rights of NetEase, and may do so in a manner that could vary significantly from that of NetEase.

We may have conflicts of interest with NetEase and, because of NetEase's controlling ownership interest in our company, we may not be able to resolve such conflicts on terms favorable to us.

Conflict of interest may arise between NetEase and us in a number of areas relating to our ongoing relationships. Potential conflicts of interest that we have identified mainly include the following:

- ***Agreements with NetEase.*** We have entered into a series of business cooperation agreements, including a non-competition agreement, with NetEase in connection with our initial public offering, which has become effective after the completion of our initial public offering in October 2019. These agreements may be less favorable to us than similar agreements negotiated between unaffiliated third parties. Additionally, NetEase may use its control over us to prevent us from bringing a legal claim against it in the event of a contractual breach by it, notwithstanding our contractual rights under such agreements and any other agreement we may enter into with NetEase from time to time.
- ***Competition with NetEase and allocation of business opportunities.*** Under the non-competition agreement, NetEase and we have each agreed to be subject to certain non-compete restrictions, including an obligation to refer to the other party certain types of business opportunities. These non-compete restrictions may significantly affect our ability to diversify our revenue sources and may materially and adversely impact our business and prospects. In addition, there may arise business opportunities in the future that both we and NetEase are interested in and which may complement each of our respective businesses. NetEase holds a large number of business interests, some of which may directly or indirectly compete with us. We may be prevented from taking advantages of new business opportunities that NetEase has entered into or decides to take up such opportunities itself.
- ***Employee recruiting and retention.*** We may compete with NetEase in the hiring of employees, especially computer programmers, engineers, sales and other employees with experience or an interest in the internet industry. We have a non-solicitation arrangement with NetEase under the non-competition agreement that restricts each of NetEase and us from hiring the other party's employees.
- ***Sale of shares in our company.*** Subject to applicable securities laws, NetEase may decide to sell all or a portion of the shares that it holds in our company to a third party, including to one of our competitors, thereby giving that third-party substantial influence over our business and our affairs. Such a sale could be contrary to the interests of our employees or our other shareholders or holders of the ADSs.
- ***Developing business relationships with NetEase's competitors.*** We may be limited in our ability to do business with NetEase's competitors, which may limit our ability to serve the best interests of our company and our other shareholders or holders of the ADSs.

- *Our directors may have conflicts of interest.* William Lei Ding, our director, is also the chief executive officer, a director and a major shareholder of NetEase, as well as a nominee shareholder of certain of the VIEs. These relationships could create, or appear to create, conflicts of interest when William Lei Ding is faced with decisions with potentially different implications for NetEase and us.

Our financial contribution to NetEase was not material during the periods presented in this annual report, and NetEase may from time to time make strategic decisions that it believes are in the best interests of its business as a whole, which may be different from the decisions that we would have made on our own. NetEase's decisions with respect to us or our business may favor NetEase and therefore the NetEase shareholders, which may not necessarily be aligned with our interests and the interests of our other shareholders. NetEase may make decisions, or suffer adverse trends, that may disrupt or discontinue our collaborations with NetEase or our access to NetEase's user base. Furthermore, if NetEase seeks to alter or violate the terms of the non-competition agreement with us in order to compete with us, such conflicts may not be resolved in our favor in light of NetEase's controlling interest in us. If NetEase were to compete with us, our business, financial condition, results of operations and prospects could be materially and adversely affected. Although we are now a stand-alone public company and have an audit committee, consisting of independent non-executive directors, to review and approve all proposed related party transactions including those between NetEase and us, we may not be able to resolve all potential conflicts of interest, and even if we do so, the resolution may be less favorable to us than if we were dealing with a non-controlling shareholder.

Risks Related to Our Corporate Structure

There are substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations, and rules relating to the agreements that establish the VIE structure for our and the VIEs' operations in China, including potential future actions by the PRC government, which could affect the enforceability of our contractual arrangements with the VIEs and, consequently, significantly affect our financial condition and results of operations. If the PRC government finds our contractual arrangements non-compliant with relevant PRC laws, regulations, and rules, or if these laws, regulations, and rules or the interpretation thereof change in the future, we could be subject to severe penalties or be forced to relinquish our interests in the VIEs.

Foreign investment in the value-added telecommunication services industry in China is extensively regulated and subject to numerous restrictions. Pursuant to the list of special management measures for the market entry of foreign investment, or the Negative List, published by the National Development and Reform Commission (NDRC) and the Ministry of Commerce on December 27, 2021 and effective on January 1, 2022, with a few exceptions, foreign investors are generally not allowed to own more than 50% of the equity interests in a value-added telecommunication service provider.

We are a Cayman Islands company and our wholly owned PRC subsidiaries are currently considered foreign-invested enterprise. Accordingly, our PRC subsidiaries are not eligible to provide value-added telecommunication services in China. To ensure strict compliance with the PRC laws and regulations, we conduct such business activities through Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer, the VIEs. Youdao Information and Youdao Hangzhou, our wholly owned subsidiaries in China, have entered into a series of contractual arrangements with the VIEs and their shareholders, which enable us to (i) be considered as the primary beneficiary of the VIEs, (ii) receive substantially all of the economic benefits of the VIEs, and (iii) have an exclusive option to purchase all or part of the equity interests and assets in the VIEs when and to the extent permitted by PRC law. As a result of these contractual arrangements, we have been considered as the primary beneficiary of the VIEs for accounting purposes and hence consolidate their financial results as the VIEs under U.S. GAAP, to the extent the conditions of the VIEs under the U.S. GAAP are satisfied. See “Item 4. Information on the Company—4.C. Organizational Structure—Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders” for further details.

If the PRC government finds that our contractual arrangements do not comply with its restrictions on foreign investment in the value-added telecommunication services, or if the PRC government otherwise finds that we or the VIEs are in violation of PRC laws or regulations or lack the necessary permits or licenses to operate our and the VIEs' business, the relevant PRC regulatory authorities, including the MIIT and SAIC, would have broad discretion in dealing with such violations or failures, including, without limitation:

- revoking the business licenses and/or operating licenses of such entities;
- discontinuing or placing restrictions or onerous conditions on our and the VIEs' operation through any transactions between our PRC subsidiaries and the VIEs;
- imposing fines, confiscating the income from our PRC subsidiaries or the VIEs, or imposing other requirements with which we or the VIEs may not be able to comply; or
- requiring us to restructure our ownership structure or operations, including terminating the contractual arrangements with the VIEs and deregistering the equity pledges of the VIEs, which in turn would affect our ability to consolidate and derive economic interests from the VIEs.

Any of these actions could cause significant disruptions to our and the VIEs' business operations and severely damage our reputation, which would in turn materially and adversely affect our and the VIEs' business, financial condition and results of operations. In addition, new PRC laws, regulations, and rules may be introduced to impose additional requirements, posing additional challenges to our corporate structure and contractual arrangements. For example, the General Office of State Council and the General Office of Central Committee of the Communist Party of China jointly promulgated the Alleviating Burden Opinion on July 24, 2021, which provides, among others, that (i) Academic AST Institutions are prohibited from raising funds by listing on stock markets or conducting any capitalization activities; and (ii) foreign capital is prohibited from controlling or participating in any Academic AST Institutions through mergers and acquisitions, entrusted operation, joining franchise or variable interest entities. The Alleviating Burden Opinion provides that any violation of the foregoing shall be rectified. The Alleviating Burden Opinion further states that the administration and supervision over academic subjects tutoring institutions for students in grades 10 to 12 shall be implemented by reference to the relevant provisions of the Alleviating Burden Opinion. In February 2022, the MOE issued its 2022 Work Plan which provides that the supervision of AST institutions for students in grades 10 to 12 shall be strictly carried out "with reference to" the relevant provisions as set forth in the Alleviating Burden Opinion. It remains uncertain as to how and to what extent the administration over academic subjects tutoring institutions for students in grades 10 to 12 will be implemented by reference of the Alleviating Burden Opinion.

We have conducted a series of compliance measures regarding the Alleviating Burden Opinion and the relevant implementation measures. As of the date of this annual report, we no longer offer AST courses on academic subjects for students receiving compulsory education or for high-school students. We may take further necessary measures to comply with the current and future PRC laws and regulations. We believe, to the best of our knowledge, our contractual arrangements do not violate any applicable PRC laws and regulations currently in force in all material aspects. However, there are substantial uncertainties regarding the interpretation and application of current and future PRC laws and regulations, thus we cannot preclude the possibility that the PRC regulatory authorities may take a view that is contrary to us. If any of these occurrences results in our inability to direct the activities of the VIEs or our failure to receive the economic benefits from the VIEs and/or our inability to claim our contractual control rights over the assets of the VIEs that conduct substantially all of our and the VIEs' operations in China, we may not be able to consolidate the entity in our consolidated financial statements in accordance with U.S. GAAP which could materially and adversely affect our financial condition and results of operations and cause our ADSs to significantly decline in value or become worthless.

Any failure by the VIEs or their shareholders to perform their obligations under our contractual arrangements with them would have a material adverse effect on our business.

Since PRC laws prohibit or restrict foreign equity ownership in certain kinds of business in China, we have relied and expect to continue to rely on the contractual arrangements with the VIEs and their shareholders to operate our business in China.

However, these contractual arrangements may not be as effective as equity ownership in providing us with control over our affiliated entities. Any of our affiliated entities, including the VIEs and its shareholders, could breach their contractual arrangements with us by, among other things, failing to conduct their operations in an acceptable manner or taking other actions that are detrimental to our interests. In the event that the shareholders of the VIEs breach the terms of these contractual arrangements and voluntarily liquidate the VIEs, or the VIEs declares bankruptcy and all or part of its assets become subject to liens or rights of third-party creditors, or are otherwise disposed of without our consent, we may be unable to conduct some or all of our business operations or otherwise benefit from the assets held by our affiliated entities, which could have a material adverse effect on our and the VIEs' business, financial condition and results of operations.

Most of the nominee shareholders of the VIEs are also beneficial owners of the company. Particularly, nominee shareholders of the VIEs are Mr. Feng Zhou, Chief Executive Officer and a shareholder of the company, Mr. Lei Ding, the chief executive officer, director and a non-controlling shareholder of NetEase, Inc., our controlling shareholder, and Mr. Yinghui Wu, the Vice President and a shareholder of the company. The enforceability of the contractual agreements between us, the VIEs and their shareholders depends to a large extent upon whether the VIEs and their shareholders will fulfill these contractual agreements. Their interests in enforcing these contractual agreements may not align with our interests or the interests of our shareholders. If their interest diverges from that of our company and other shareholders, it may potentially increase the risk that they could seek to act contrary to these contractual arrangements. If any of the VIEs or their shareholders fail to perform their respective obligations under the contractual arrangements, we may be limited in our ability to enforce the contractual arrangements that allow us to be considered as the primary beneficiary of the VIEs for accounting purposes, and our ability to consolidate the financial results of the VIEs may be affected. We may have to incur substantial costs and expend additional resources to enforce such arrangements. We may also have to rely on legal remedies under PRC law, including seeking specific performance or injunctive

relief, and contractual remedies, which we cannot assure you will be sufficient or effective under PRC law. In addition, if any third parties claim any interest in such shareholders' equity interests in any of the VIEs, our ability to exercise shareholders' rights or foreclose the share pledge according to the contractual arrangements may be impaired. If these or other disputes between the shareholders of the VIEs and third parties were to impair the contractual arrangements, our ability to consolidate the financial results of the VIEs would be affected, which would in turn result in a material adverse effect on our business, operations and financial condition. Our contractual arrangements are governed by PRC law and provide for the resolution of disputes through litigation in China. Accordingly, these agreements would be interpreted in accordance with PRC law and any disputes would be resolved in accordance with PRC legal procedures. The legal system in the PRC is not as developed as in some other jurisdictions, such as the United States. As a result, uncertainties in the PRC legal system could limit our ability to enforce these contractual arrangements. Meanwhile, there are very few precedents and little formal guidance as to how contractual arrangements in the context of a VIE should be interpreted or enforced under PRC law.

In addition, the shareholders of the VIEs may be involved in personal disputes with third parties or other incidents that may have an adverse effect on their respective equity interests in the VIEs and the validity or enforceability of the contractual arrangements. For instance, in the event that such shareholder divorces his or her spouse, the spouse may claim that the equity interest of the VIEs held by such shareholder is part of their marital or community property and should be divided between such shareholder and his or her spouse. If such claim is supported by the competent court, the relevant equity interest may be obtained by the shareholder's spouse or another third party who is not bound by our contractual arrangements, which could result in our losing effective control over the VIEs. Even if we receive a consent letter from the spouse of a nominee shareholder of the VIEs where such spouse undertakes that he or she would not take any actions to interfere with the contractual arrangements through which we control such VIEs, including by claiming that the equity interest of the VIEs held by such shareholder is part of their marital or community property, we cannot assure you that these undertakings will be complied with or effectively enforced. In the event that any of them is breached or becomes unenforceable and leads to legal proceedings, it could disrupt our business, distract our management's attention and subject us to substantial uncertainties as to the outcome of any such legal proceedings. Similarly, if any of the equity interests of the VIEs are inherited by a third party on whom the current contractual arrangements are not binding, we could lose our control over the VIEs or have to maintain such control at unpredictable cost, which could cause significant disruption to our business operations and harm our financial condition and results of operations.

There remain significant uncertainties regarding the ultimate outcome of such adjudication should legal action become necessary. In the event that we are unable to enforce these contractual arrangements, or if we suffer significant delay or other obstacles in the process of enforcing these contractual arrangements, we may not be able to be considered as the primary beneficiary of the VIEs for accounting purposes, and our ability to conduct our business may be negatively affected.

Uncertainties exist with respect to the interpretation and implementation of the enacted Foreign Investment Law and how it may impact our and the VIEs' business, financial condition and results of operations.

On March 15, 2019, the National People's Congress of the PRC promulgated the Foreign Investment Law, which came into effect on January 1, 2020 and replaced the trio of existing laws regulating foreign investment in China, namely, the Sino-foreign Equity Joint Venture Enterprise Law, the Sino-foreign Cooperative Joint Venture Enterprise Law and the Wholly Foreign-invested Enterprise Law, together with their implementation rules and ancillary regulations. The Foreign Investment Law embodies an expected PRC regulatory trend to rationalize its foreign investment regulatory regime in line with prevailing international practice and the legislative efforts to unify the corporate legal requirements for both foreign and domestic investments. The enacted Foreign Investment Law does not mention concepts such as "actual control" and "controlling PRC companies by contracts or trusts" that were included in the previous drafts, nor did it specify regulation on controlling through contractual arrangements, and thus this regulatory topic remains unclear under the Foreign Investment Law. However, since it is relatively new, uncertainties still exist in relation to its interpretation and implementation. For instance, though the Foreign Investment Law does not explicitly classify contractual arrangements as a form of foreign investment, it contains a catch-all provision under the definition of "foreign investment," which includes investments made by foreign investors in China through means stipulated in laws or administrative regulations or other methods prescribed by the State Council. Therefore, it still leaves leeway for future laws, administrative regulations or provisions promulgated by the State Council to provide for contractual arrangements as a form of foreign investment. Furthermore, if future laws, administrative regulations or provisions prescribed by the State Council mandate further actions to be taken by companies with respect to existing contractual arrangements, such as unwinding our existing contractual arrangements and/or disposal of our related business operations, we may face substantial uncertainties as to whether we can complete such actions in a timely manner, or at all. Failure to take timely and appropriate measures to cope with any of these or similar regulatory compliance challenges could materially and adversely affect our current corporate structure, corporate governance and business operations.

We rely on contractual arrangements with the VIEs and their shareholders for a large portion of our business operations which may not be as effective as equity ownership in providing operational control.

We primarily have relied and expect to continue to rely on contractual arrangements with the VIEs and their respective shareholders to operate our business in China. These contractual arrangements may not be as effective as equity ownership in providing us with control over the VIEs. For example, the VIEs and their shareholders could breach their contractual arrangements with us by, among other things, failing to conduct their operations in an acceptable manner or taking other actions that are detrimental to our interests. If we had equity ownership of the VIEs, we would be able to exercise our rights as a shareholder to effect changes in the board of directors of the VIEs, which in turn could implement changes, subject to any applicable fiduciary obligations, at the management and operational level. However, under the current contractual arrangements, we rely on the performance by the VIEs and their shareholders of their respective obligations. The shareholders of

the VIEs may not act in the best interests of our company or may not perform their obligations under these contracts. Such risks exist throughout the period in which we intend to operate certain portions of our business through the contractual arrangements with the VIEs. If any disputes relating to these contracts remain unresolved, we will have to enforce our rights under these contracts through the operations of PRC law and arbitration, litigation and other legal proceedings and therefore will be subject to uncertainties in the PRC legal system. Therefore, our contractual arrangements with the VIEs may not be as effective as equity ownership would be in ensuring our control over the relevant portion of our business operations.

Our contractual arrangements are governed by PRC law. Accordingly, these contracts would be interpreted in accordance with PRC law, and any disputes would be resolved in accordance with PRC legal procedures.

The legal system in the PRC is not as developed as in some other jurisdictions, such as the United States. As a result, uncertainties in the PRC legal system could limit our ability to enforce these contractual arrangements. Meanwhile, there are very few precedents and little formal guidance as to how contractual arrangements in the context of a VIE should be interpreted or enforced under PRC law. There remain significant uncertainties regarding the ultimate outcome of such arbitration should legal action become necessary. In addition, under PRC law, rulings by arbitrators are final, parties cannot appeal the arbitration results in courts, and if the losing parties fail to carry out the arbitration awards within a prescribed time limit, the prevailing parties may only enforce the arbitration awards in PRC courts, which would require additional expenses and delay. In the event we are unable to enforce these contractual arrangements, or if we suffer significant delays or other obstacles in the process of enforcing these contractual arrangements, we may not be considered as the primary beneficiary of the VIEs for accounting purposes, and our ability to conduct our and the VIEs' business may be negatively affected.

The shareholders of the VIEs may have actual or potential conflicts of interest with us, which may materially and adversely affect our business and financial condition.

The shareholders of the VIEs may have actual or potential conflicts of interest with us. These shareholders may refuse to sign or breach, or cause the VIEs to breach, or refuse to renew, the existing contractual arrangements we have with them and the VIEs, which would have a material and adverse effect on our ability to be considered as the primary beneficiary of the VIEs for accounting purposes and receive economic benefits from them. For example, the shareholders may be able to cause our agreements with the VIEs to be performed in a manner adverse to us by, among other things, failing to remit payments due under the contractual arrangements to us on a timely basis. We cannot assure you that when conflicts of interest arise any or all of these shareholders will act in the best interests of our company or such conflicts will be resolved in our favor. Currently, we do not have any arrangements to address potential conflicts of interest between these shareholders and our company. If we cannot resolve any conflict of interest or dispute between us and these shareholders, we would have to rely on legal proceedings, which could result in disruption of our business and subject us to substantial uncertainty as to the outcome of any such legal proceedings.

Contractual arrangements in relation to the VIEs may be subject to scrutiny by the PRC tax authorities and they may determine that we or the VIEs owe additional taxes, which could negatively affect our financial condition and the value of your investment.

Under applicable PRC laws and regulations, arrangements and transactions among related parties may be subject to audit or challenge by the PRC tax authorities within ten years after the taxable year when the transactions are conducted. We could face material and adverse tax consequences if the PRC tax authorities determine that the VIE contractual arrangements were not entered into on an arm's-length basis in such a way as to result in an impermissible reduction in taxes under applicable PRC laws, rules and regulations, and adjust the income of the VIEs in the form of a transfer pricing adjustment. A transfer pricing adjustment could, among other things, result in a reduction of expense deductions recorded by the VIEs for PRC tax purposes, which could in turn increase its tax liabilities without reducing our PRC subsidiaries' tax expenses. In addition, the PRC tax authorities may impose late payment fees and other penalties on the VIEs for the adjusted but unpaid taxes according to the applicable regulations. Our financial position could be materially and adversely affected if the VIEs' tax liabilities increase or if it is required to pay late payment fees and other penalties.

We may lose the ability to use, or otherwise benefit from, the licenses, approvals and assets held by the VIEs, which could severely disrupt our business, render us unable to conduct some or all of our business operations and constrain our growth.

As part of our contractual arrangements with the VIEs, the VIEs hold certain assets, licenses and permits that are material to their business operations, such as the ICP License. The contractual arrangements contain terms that specifically obligate VIEs' shareholders to ensure the valid existence of the VIEs and restrict the disposal of material assets of the VIEs. However, in the event the VIEs' shareholders breach the terms of these contractual arrangements and voluntarily liquidate the VIEs, or the VIEs declare bankruptcy and all or part of its assets become subject to liens or rights of third-party creditors, or are otherwise disposed of without our consent, we may be unable to conduct some or all of our business operations or otherwise benefit from the assets held by the VIEs, which could have a material adverse effect on our business, financial condition and results of operations. Furthermore, if any of the VIEs undergoes a voluntary or involuntary liquidation proceeding, its shareholders or unrelated third-party creditors may claim rights to some or all of the assets of such VIE, thereby hindering our ability to operate our business as well as constrain our growth.

Risks Related to Doing Business in China

Changes in China's economic, political or social conditions or government policies could have a material adverse effect on our and the VIEs' business and operations.

Substantially all of our and the VIEs' assets and operations are located in China. Accordingly, our and the VIEs' business, financial condition, results of operations and prospects may be influenced to a significant degree by political, economic and social conditions in China generally. The Chinese economy differs from the economies of most developed countries in many respects, including the level of government involvement, level of development, growth rate, control of foreign exchange and allocation of resources. Although the Chinese government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets, and the establishment of improved corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the government. In addition, the Chinese government continues to play a significant role in regulating industry development by imposing industrial policies. The Chinese government also exercises significant control over China's economic growth through allocating resources, controlling payment obligations denominated in foreign currencies, setting monetary policy and providing preferential treatment to particular industries or companies. While the Chinese economy has experienced significant growth over past decades, growth has been uneven, both geographically and among various sectors of the economy. Any adverse changes in economic conditions in China, in the policies of the Chinese government or in the laws and regulations in China could have a material adverse effect on the overall economic growth of China. Such developments could adversely affect our and the VIEs' business and operating results, lead to a reduction in demand for our services and adversely affect our competitive position. The Chinese government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures may benefit the overall Chinese economy, but may have a negative effect on us. For example, our financial condition and results of operations may be adversely affected by government control over capital investments or changes in tax regulations. The growth rate of the Chinese economy has gradually slowed since 2010, and the COVID-19 pandemic has negatively impacted and may continue to negatively impact the Chinese economy. Any prolonged slowdown in the Chinese economy may reduce the demand for our products and services and materially and adversely affect our and the VIEs' business and results of operations.

Uncertainties with respect to the PRC legal system, including uncertainties regarding the enforcement of laws, and sudden or unexpected changes in policies, laws and regulations in China, could adversely affect us.

The PRC legal system is a civil law system based on written statutes. Unlike the common law system, prior court decisions under the civil law system may be cited for reference but have limited precedential value.

In 1979, the PRC government began to promulgate a comprehensive system of laws and regulations governing economic matters in general. The overall effect of legislation over the past three decades has significantly enhanced the protections afforded to various forms of foreign investments in China. However, China has not developed a fully integrated legal system, and recently enacted laws and regulations may not sufficiently cover all aspects of economic activities in China. In particular, the interpretation and enforcement of these laws and regulations involve uncertainties. Since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory provisions and contractual terms, it may be difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy. These uncertainties may affect our judgment on the relevance of legal requirements and our ability to enforce our contractual rights or tort claims. In addition, the regulatory uncertainties may be exploited through unmerited or frivolous legal actions or threats in attempts to extract payments or benefits from us.

The PRC government has significant oversight and discretion over the conduct of our and the VIEs' business and may intervene with or influence our and the VIEs' operations as the government deems appropriate to further regulatory, political and societal goals. The PRC government has recently published new policies that adversely affected our industry and our and the VIEs' business, and we cannot rule out the possibility that it will in the future further release regulations or policies regarding our industry that could further adversely affect our and the VIEs' business, financial condition and results of operations. Furthermore, the PRC government has also recently indicated an intent to exert more oversight and control over securities offerings and other capital markets activities that are conducted overseas and foreign investment in China-based companies like us. Any such action, once taken by the PRC government, could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and cause the value of such securities to significantly decline or in extreme cases, become worthless.

We cannot assure you that we will be able to comply with new laws and regulations in all respects, and we may be ordered to rectify,

suspend or terminate any actions or services that are deemed illegal by the regulatory authorities and become subject to material penalties, which may materially harm our and the VIEs' business, financial condition, results of operations and prospects.

Furthermore, the PRC legal system is based in part on government policies and internal rules, some of which are not published on a timely basis or at all and may have a retroactive effect. As a result, we may not be aware of our violation of any of these policies and rules until sometime after the violation. In addition, any administrative and court proceedings in China may be protracted, resulting in substantial costs and diversion of resources and management attention.

The PRC government may intervene or influence our and the VIEs' operations at any time, or may exert more control over our future overseas offerings or foreign investments in us, which could result in a material change in our and the VIEs' operation and the value of our ADSs.

We conduct our business primarily through our PRC subsidiaries and the VIEs and their subsidiaries in China. Our operations in China are governed by PRC laws and regulations. The PRC government has significant oversight and discretion over the operation of our and the VIEs' business, and it may intervene or influence our and the VIEs' operations at any time, which could result in a material adverse change in our and the VIEs' operation and the value of our ADSs.

The PRC government has recently indicated an intent to exert more oversight over overseas offerings by and/or foreign investments in China-based issuers like us. For example, on July 6, 2021, relevant PRC government authorities promulgated the Opinions on Strictly Cracking Down on Illegal Securities Activities, which emphasized the need to strengthen the administration over "illegal securities activities" and the supervision on overseas listings by China-based companies, and proposed to take effective measures, such as promoting the construction of relevant regulatory systems to deal with the risks and incidents faced by China-based overseas-listed companies, although such opinions did not specify the definition of "illegal securities activities." Such opinions further provided that the special provisions of the State Council on overseas offerings and listings by those companies limited by shares will be revised and therefore the duties of domestic industry competent authorities and regulatory agencies will be clarified. On February 17, 2023, the CSRC released the Overseas Listing Trial Measures and five supporting guidelines, which came into effect on March 31, 2023. Pursuant to the Overseas Listing Trial Measures, domestic companies that seek to offer or list securities overseas, both directly and indirectly, should fulfill the filing procedure and report relevant information to the CSRC. In addition, domestic companies that have been listed on a foreign stock exchange prior to the effective date of the Overseas Listing Trial Measures are required to file with the CSRC within three working days after such domestic company completes a security offering on the foreign stock exchange on which its securities have been listed. Since the Overseas Listing Trial Measures was newly promulgated, its interpretation, application and enforcement remain unclear. If the filing procedure with the CSRC under the Overseas Listing Trial Measures is required for any future offerings, listing or any other capital raising activities by us, it is uncertain whether we could complete the filing procedure in a timely manner, or at all.

In addition, on January 4, 2022, the CAC published the Revised Cybersecurity Review Measures, which became effective on February 15, 2022. The Revised Cybersecurity Review Measures provide that a critical information infrastructure operator purchasing network products and services, and platform operators carrying out data processing activities, which affect or may affect national security, shall apply for cybersecurity review and that a platform operator with more than one million users' personal information aiming to list abroad must apply for cybersecurity review. There are substantial uncertainties as to the interpretation, application, and enforcement of the Revised Cybersecurity Review Measures and whether to conduct a security offering or maintain our listing status on the NYSE will be subject to the cybersecurity review procedures.

It remains uncertain how PRC government authorities will regulate overseas listing in general and whether we are required to complete filing or obtain any specific regulatory approvals from the CSRC, CAC or any other PRC government authorities for our overseas offerings. If the CSRC, CAC or other government authorities later promulgate new rules or explanations requiring that we obtain their approvals for our future overseas offerings or maintain the listing status of our ADS, we may be unable to obtain such approvals in a timely manner, or at all, and such approvals may be rescinded even if obtained. Any such circumstance could significantly limit or completely hinder our ability to continue to offer securities to investors and cause the value of such securities to significantly decline or be worthless. In addition, implementation of industry-wide regulations affecting our and the VIEs' operations could cause the value of our securities to significantly decline. Therefore, investors of our company and our and the VIEs' business face potential uncertainty from actions taken by the PRC government affecting our and the VIEs' business.

You may experience difficulties in effecting service of legal process, enforcing foreign judgments or bringing actions in China, including Hong Kong, against us or our management named in the annual report based on foreign laws.

We are a Cayman Islands company and currently conduct substantially all business operations in China through our subsidiaries incorporated in the PRC and the contractual arrangements among our PRC subsidiaries and the VIEs. Substantially all of our and the VIE's assets are located in China. In addition, most of our senior executive officers reside within China for a significant portion of the time and most are PRC nationals. We do not have any material operations or assets in Hong Kong. There are also uncertainties regarding the status of the rights of the Youdao, Inc., our Cayman Islands holding company, with respect to our contractual arrangements with the VIEs, our founders and shareholders. As a result, it may be difficult for our shareholders to effect service of process upon us or those persons inside China, including Hong Kong. In addition, neither China nor Hong Kong has treaties providing for the reciprocal recognition and enforcement of judgments of courts with the Cayman Islands and many other countries and regions. Therefore, recognition and enforcement in China or Hong Kong of judgments of a court in any of these non-PRC jurisdictions in relation to any matter not subject to a binding arbitration provision may be difficult or impossible.

Shareholder claims that are common in the United States, including securities law class actions and fraud claims, generally are difficult to pursue as a matter of law or practicality in China. For example, in China, there are significant legal and other obstacles to obtaining information needed for shareholder investigations or litigation outside China or otherwise with respect to foreign entities. Although the local authorities in China may establish a regulatory cooperation mechanism with the securities regulatory authorities of another country or region to implement cross-border supervision and administration, such regulatory cooperation with the securities regulatory authorities in the United States have not been efficient in the absence of mutual and practical cooperation mechanism. No organization or individual may provide the documents and materials relating to securities business activities to overseas parties arbitrarily without the consent of the competent securities regulatory authority in China according to the PRC Securities Law. See also “—Risks Related to Our Class A Ordinary Shares and Our ADSs—You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under Cayman Islands law for risks associated with investing in us as a Cayman Islands company.”

We may rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material and adverse effect on our ability to conduct our business.

We are a Cayman Islands holding company and we rely principally on dividends and other distributions on equity from our PRC subsidiaries for our cash requirements, including for services of any debt we may incur. The ability of our PRC subsidiaries to pay dividends and other distributions on equity, in turn, depends on the payment they receive from the VIEs as service fees pursuant to certain contractual arrangements among our PRC subsidiaries, the VIEs and the VIEs' shareholders entered into to comply with certain restriction under PRC law on foreign investment. Investors in our securities should note that, to the extent cash in the business is in the PRC or a PRC entity, the funds may not be available to fund operations or for other use outside of the PRC due to interventions in or the imposition of restrictions and limitations on the ability of Youdao, Inc. or its subsidiaries, or the VIEs by the PRC government to transfer cash. For more information about such contractual arrangements, see “Item 4. Information on the Company—4.C. Organizational Structure—Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders.”

Our PRC subsidiaries' ability to distribute dividends is based upon their distributable earnings. Current PRC regulations permit our PRC subsidiaries to pay dividends to their respective shareholders only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In addition, each of our PRC subsidiaries and the VIEs are required to set aside at least 10% of their after-tax profits each year, if any, to fund a statutory reserve until such reserve reaches 50% of their registered capital. These reserves are not distributable as cash dividends. If our PRC subsidiaries incur debt on their own behalf in the future, the instruments governing the debt may restrict their ability to pay dividends or make other payments to us. Any limitation on the ability of our PRC subsidiaries to distribute dividends or other payments to their respective shareholders could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our businesses, pay dividends or otherwise fund and conduct our business.

To address the persistent capital outflow and the RMB's depreciation against the U.S. dollar in the fourth quarter of 2016, the People's Bank of China and the State Administration of Foreign Exchange, or SAFE, have implemented a series of capital control measures in the subsequent months, including stricter vetting procedures for China-based companies to remit foreign currency for overseas acquisitions, dividend payments and shareholder loan repayments. For instance, the Circular on Promoting the Reform of Foreign Exchange Management

and Improving Authenticity and Compliance Review, or the SAFE Circular 3, issued on January 26, 2017, provides that the banks shall, when dealing with dividend remittance transactions from domestic enterprise to its offshore shareholders of more than US\$50,000, review the relevant board resolutions, original tax filing form and audited financial statements of such domestic enterprise based on the principal of genuine transaction. The PRC government may continue to strengthen its capital controls and our PRC subsidiaries' dividends and other distributions may be subject to tightened scrutiny in the future. Any limitation on the ability of our PRC subsidiaries to pay dividends or make other distributions to us could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our business, pay dividends, or otherwise fund and conduct our business.

In addition, the Enterprise Income Tax Law and its implementation rules provide that a withholding tax at a rate of 10% will be applicable to dividends payable by Chinese companies to non-PRC-resident enterprises unless reduced under treaties or arrangements between the PRC central government and governments of other countries or regions where the non-PRC resident enterprises are tax resident.

The custodians or authorized users of our controlling non-tangible assets, including chops and seals, may fail to fulfill their responsibilities, or misappropriate or misuse these assets.

Under the PRC law, legal documents for corporate transactions, including agreements and contracts are executed using the chop or seal of the signing entity or with the signature of a legal representative whose designation is registered and filed with relevant PRC industry and commerce authorities.

In order to secure the use of our chops and seals, we have established internal control procedures and rules for using these chops and seals. In any event that the chops and seals are intended to be used, the responsible personnel will submit the application which will then be verified and approved by authorized employees in accordance with our internal control procedures and rules. In addition, in order to maintain the physical security of our chops, we generally have them stored in secured locations accessible only to authorized employees. Although we monitor such authorized employees, the procedures may not be sufficient to prevent all instances of abuse or negligence. There is a risk that our employees could abuse their authority, for example, by entering into a contract not approved by us or seeking to gain control of one of our subsidiaries or VIEs. If any employee obtains and misuses or misappropriates our chops and seals or other controlling non-tangible assets for whatever reason, we could experience disruption to our normal business operations. We may have to take corporate or legal action, which could involve significant time and resources to resolve and divert management from our operations.

PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may delay us from making loans or additional capital contributions to our PRC subsidiaries and to make loans to the VIEs, which could materially and adversely affect our liquidity and our ability to fund and expand our and the VIEs' business.

Any funds we transfer to our PRC subsidiaries, either as a shareholder loan or as an increase in registered capital, as well as any foreign loans we provide to the VIEs, are subject to approval by or registration with relevant governmental authorities in China. According to the relevant PRC regulations on foreign-invested enterprises, or FIEs, in China, capital contributions to our PRC subsidiaries are subject to the reporting with the Ministry of Commerce, or MOFCOM, or its local branches and registration with a local bank authorized by the State Administration of Foreign Exchange, or SAFE. In addition, (i) any foreign loan procured by our PRC subsidiaries is required to be registered with SAFE or its local branches and (ii) any of our PRC subsidiaries may not procure loans which exceed the difference between its total investment amount and registered capital or, as an alternative, only procure loans subject to the calculation approach and limitation as provided in the Notice of the People's Bank of China on Matters concerning the Macro-Prudential Management of Full-Covered Cross-Border Financing, or the PBOC Notice No. 9. Additionally, any medium or long-term loans to be provided by us to the VIEs must be registered with the NDRC and the SAFE or its local branches. We may not be able to obtain these government approvals or complete such registrations on a timely basis, if at all, with respect to future capital contributions or foreign loans by us to our PRC subsidiaries or loans by us to the VIEs. If we fail to receive such approvals or complete such reporting, registration or filing, our ability to use the proceeds of our initial public offering and the concurrent private placements to Orbis and to capitalize our PRC operations may be negatively affected, which could adversely affect our liquidity and our ability to fund and expand our and the VIEs' business. See "Item 4. Information on the Company—4.A. History and Development of the Company—Our Corporate History."

On March 30, 2015, the SAFE promulgated the Circular on Reforming the Management Approach Regarding the Foreign Exchange Capital Settlement of Foreign-Invested Enterprises, or SAFE Circular 19, which took effect as of June 1, 2015. SAFE Circular 19 launched a nationwide reform of the administration of the settlement of the foreign exchange capitals of FIEs and allows FIEs to settle their foreign exchange capital at their discretion, but continues to prohibit FIEs from using the Renminbi fund converted from their foreign exchange capital for expenditure beyond their business scopes, providing entrusted loans or repaying loans between nonfinancial enterprises. The SAFE issued the Circular on Reforming and Regulating Policies on the Control over Foreign Exchange Settlement of Capital Accounts, or SAFE Circular 16, effective in June 2016. Pursuant to SAFE Circular 16, enterprises registered in China may also convert their foreign debts from foreign currency to Renminbi on a self-discretionary basis. SAFE Circular 16 provides an integrated standard for conversion of foreign exchange under capital account items (including but not limited to foreign currency capital and foreign debts) on a self-discretionary basis which applies to all enterprises registered in China. SAFE Circular 16 reiterates the principle that Renminbi converted from foreign currency-denominated capital of a company may not be directly or indirectly used for purposes beyond its business scope or prohibited by PRC laws or regulations, while such converted Renminbi shall not be provided as loans to its non-affiliated entities. On October 23, 2019, SAFE issued Notice of the State Administration of Foreign Exchange on Further Promoting the Facilitation of Cross-border Trade and Investment, or the Circular 28. Circular 28 allows non-investment foreign-invested enterprises to use their capital funds to make equity investments in China,

provided that such investments do not violate the Negative List and the target investment projects are genuine and in compliance with PRC laws. As Circular 28 is relatively new, there remains uncertainty as to its interpretation and application and any other future foreign exchange related rules. Violations of these Circulars could result in severe monetary or other penalties. SAFE Circular 19 and SAFE Circular 16 may significantly limit our ability to use Renminbi converted from the net proceeds of our initial public offering, the concurrent private placements to Orbis and follow-on offering to fund the establishment of new entities in China by the VIEs, to invest in or acquire any other PRC companies through our PRC subsidiaries, or to establish new VIEs in China, which may adversely affect our and the VIEs' business, financial condition and results of operations.

The PCAOB had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections of our auditor in the past has deprived our investors with the benefits of such inspections.

Our auditor, the independent registered public accounting firm that issues the audit report included elsewhere in this annual report, as an auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. The auditor is located in mainland China, a jurisdiction where the PCAOB was historically unable to conduct inspections and investigations completely before 2022. As a result, we and investors in the ADSs were deprived of the benefits of such PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in mainland China in the past has made it more difficult to evaluate the effectiveness of our independent registered public accounting firm's audit procedures or quality control procedures as compared to auditors outside of mainland China that are subject to the PCAOB inspections. On December 15, 2022, the PCAOB issued a report that vacated its December 16, 2021 determination and removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. However, if the PCAOB determines in the future that it no longer has full access to inspect and investigate completely accounting firms in mainland China and Hong Kong, and we use an accounting firm headquartered in one of these jurisdictions to issue an audit report on our financial statements filed with the SEC, we and investors in our ADSs would be deprived of the benefits of such PCAOB inspections again, which could cause investors and potential investors in the ADSs to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

Our ADSs may be prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, in the future if the PCAOB is unable to inspect or investigate completely auditors located in China. The delisting of the ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment.

Pursuant to the HFCAA, if the SEC determines that we have filed audit reports issued by a registered public accounting firm that has not been subject to inspections by the PCAOB for two consecutive years, the SEC will prohibit our shares or ADSs from being traded on a national securities exchange or in the over-the-counter trading market in the United States.

On December 16, 2021, the PCAOB issued a report to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong and our auditor was subject to that determination. In May 2022, the SEC conclusively listed us as a Commission-Identified Issuer under the HFCAA following the filing of our annual report on Form 20-F for the fiscal year ended December 31, 2021. On December 15, 2022, the PCAOB removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. For this reason, we do not expect to be identified as a Commission-Identified Issuer under the HFCAA after we file this annual report on Form 20-F for the fiscal year ended December 31, 2022.

Each year, the PCAOB will determine whether it can inspect and investigate completely audit firms in mainland China and Hong Kong, among other jurisdictions. If the PCAOB determines in the future that it no longer has full access to inspect and investigate completely accounting firms in mainland China and Hong Kong and we use an accounting firm headquartered in one of these jurisdictions to issue an audit report on our financial statements filed with the SEC, we would be identified as a Commission-Identified Issuer following the filing of the annual report on Form 20-F for the relevant fiscal year. In accordance with the HFCAA, our securities would be prohibited from being traded on a national securities exchange or in the over-the-counter trading market in the United States if we are identified as a Commission-Identified Issuer for two consecutive years in the future. If our Class A ordinary shares and ADSs are prohibited from trading in the United States, there is no certainty that we will be able to list on a non-U.S. exchange or that a market for our securities will develop outside of the United States. A prohibition of being able to trade in the United States would substantially impair your ability to sell or purchase our ADSs when you wish to do so, and the risk and uncertainty associated with delisting would have a negative impact on the price of our ADSs. Also, such a prohibition would significantly affect our ability to raise capital on terms acceptable to us, or at all, which would have a material adverse impact on our business, financial condition, and prospects.

Fluctuations in exchange rates could have a material and adverse effect on our results of operations and the value of your investment.

The value of the Renminbi against the U.S. dollar and other currencies is affected by changes in China's political and economic conditions and by China's foreign exchange policies, among other things. In July 2005, the PRC government changed its decades-old policy of pegging the value of the Renminbi to the U.S. dollar, and the Renminbi appreciated more than 20% against the U.S. dollar over the following three years. Between July 2008 and June 2010, this appreciation subsided and the exchange rate between the Renminbi and the U.S. dollar remained within a narrow band. Since June 2010, the Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. While appreciating approximately by 7% against the U.S. dollar in 2017, the Renminbi in 2018 and 2019 depreciated approximately by 5% and 1% against the U.S. dollar, respectively. Since October 1, 2016, the RMB has joined the International Monetary Fund's basket of currencies that make up the Special Drawing Right, along with the U.S. dollar, the Euro, the Japanese yen and the British pound. With the development of the foreign exchange market and progress towards interest rate liberalization and Renminbi internationalization, the PRC government may in the future announce further changes to the exchange rate system and there is no guarantee that the RMB will not appreciate or depreciate significantly in value against the U.S. dollar in the future. It is difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollar in the future.

Substantially all of our revenue and costs are denominated in Renminbi. We are a holding company and we rely on dividends paid by our operating subsidiaries in China for our cash needs. Any significant revaluation of Renminbi may materially and adversely affect our results of operations and financial position reported in Renminbi when translated into U.S. dollars, and the value of, and any dividends payable on, the ADSs in U.S. dollars.

Governmental control of currency conversion may limit our ability to utilize our revenues effectively and affect the value of your investment.

The PRC government imposes controls on the convertibility of the Renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. We receive substantially all of our revenues in Renminbi. Under our current corporate structure, our Cayman Islands holding company primarily relies on dividend payments from our PRC subsidiaries to fund any cash and financing requirements we may have. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments and trade and service-related foreign exchange transactions, can be made in foreign currencies without prior approval of SAFE by complying with certain procedural requirements. Specifically, under the existing exchange restrictions, without prior approval of SAFE, cash generated from the operations of our PRC subsidiaries in China may be used to pay dividends to our company. However, approval from or registration with appropriate government authorities is required where Renminbi is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies. As a result, we need to obtain SAFE approval to use cash generated from the operations of our PRC subsidiaries and the VIEs to pay off their respective debt in a currency other than Renminbi owed to entities outside China, or to make other capital expenditure payments outside China in a currency other than Renminbi. The PRC government may at its discretion restrict access to foreign currencies for current account transactions in the future. If the foreign exchange control system prevents us from obtaining sufficient foreign currencies to satisfy our foreign currency demands, we may not be able to pay dividends in foreign currencies to our shareholders, including holders of the ADSs.

Certain PRC regulations may make it more difficult for us to pursue growth through acquisitions.

Among other things, the Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A Rules, adopted by six PRC regulatory agencies in 2006 and amended in 2009, established additional procedures and requirements that could make merger and acquisition activities by foreign investors more time-consuming and complex. Such regulation requires, among other things, that the MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor acquires control of a PRC domestic enterprise or a foreign company with substantial PRC operations, if certain thresholds under the Provisions on Thresholds for Prior Notification of Concentrations of Undertakings, issued by the State Council in 2008 and amended in 2018, are triggered. Moreover, the Anti-Monopoly Law promulgated by the Standing Committee of the NPC which became effective in 2008 and was last amended on June 24, 2022 requires that transactions which are deemed concentrations and involve parties with specified turnover thresholds must be cleared by the MOFCOM before they can be completed. On February 7, 2021, the Anti-Monopoly Commission of the State Council promulgated the Anti-Monopoly Guidelines for the Internet Platform Economy Sector that aims at specifying some of the circumstances under which an activity of internet platforms may be identified as monopolistic act as well as clarifying that concentration of undertakings involving VIE structure shall be

subject to anti-monopoly review. In addition, PRC national security review rules which became effective in September 2011 require acquisitions by foreign investors of PRC companies engaged in military related or certain other industries that are crucial to national security be subject to security review before consummation of any such acquisition. Further, the Measures for the Security Review of Foreign Investments promulgated by the NDRC and MOFCOM which became effective from January 2021 requires that security review by relevant governmental authorities shall be conducted in accordance with the provisions of the Measures for foreign investments that affect or may affect national security. We may pursue potential strategic acquisitions that are complementary to our business and operations. Complying with the requirements of these regulations to complete such transactions could be time-consuming, and any required approval processes, including obtaining approval or clearance from the MOFCOM, may delay or inhibit our ability to complete such transactions, which could affect our ability to expand our business or maintain our market share.

PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may subject our PRC resident beneficial owners or our PRC subsidiaries to liability or penalties, limit our ability to inject capital into our PRC subsidiaries, limit our PRC subsidiaries' ability to increase their registered capital or distribute profits to us, or may otherwise adversely affect us.

In July 2014, SAFE promulgated the Circular on Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Offshore Investment and Financing and Roundtrip Investment Through Special Purpose Vehicles, or SAFE Circular 37, to replace the Notice on Relevant Issues Concerning Foreign Exchange Administration for Domestic Residents' Financing and Roundtrip Investment Through Offshore Special Purpose Vehicles, or SAFE Circular 75, which ceased to be effective upon the promulgation of SAFE Circular 37. SAFE Circular 37 requires PRC residents (including PRC individuals and PRC corporate entities) to register with SAFE or its local branches in connection with their direct or indirect offshore investment activities. SAFE Circular 37 is applicable to our shareholders who are PRC residents and may be applicable to any offshore acquisitions that we make in the future.

SAFE Circular 37 requires registration with, and approval from, Chinese government authorities in connection with direct or indirect control of an offshore entity by PRC residents. The term "control" under SAFE Circular 37 is broadly defined as the operation rights, beneficiary rights or decision-making rights acquired by PRC residents in the offshore special purpose vehicles by means of acquisition, trust, proxy, voting rights, repurchase, convertible bonds or other arrangements. In addition, any PRC resident who is a direct or indirect shareholder of an SPV is required to update its filed registration with the local branch of SAFE with respect to that SPV, to reflect any material change. Moreover, any subsidiary of such SPV in China is required to urge the PRC resident shareholders to update their registration with the local branch of SAFE. If any PRC shareholder of such SPV fails to make the required registration or to update the previously filed registration, the subsidiary of such SPV in China may be prohibited from distributing its profits or the proceeds from any capital reduction, share transfer or liquidation to the SPV, and the SPV may also be prohibited from making additional capital contributions into its subsidiary in China. On February 13, 2015, the SAFE promulgated a Notice on Further Simplifying and Improving Foreign Exchange Administration Policy on Direct Investment, or SAFE Notice 13, which became effective on June 1, 2015. Under SAFE Notice 13, applications for foreign exchange registration of inbound foreign direct investments and outbound overseas direct investments, including those required under SAFE Circular 37, will be filed with qualified banks instead of SAFE. The qualified banks will directly examine the applications and accept registrations under the supervision of SAFE. SAFE Notice 13 further provides that annual inspection of inbound foreign direct investments and outbound overseas direct investments is canceled. Instead, relevant entities or individuals, as the case may be, shall register data and information with respect to their inbound foreign direct investments and outbound overseas direct investment interests with SAFE.

These regulations may have a significant impact on our present and future structuring and investment. We have requested our shareholders who to our knowledge are PRC residents to make the necessary applications, filings and amendments as required under these regulations. We intend to take all necessary measures to ensure that all required applications and filings will be duly made and all other requirements will be met. We further intend to structure and execute our future offshore acquisitions in a manner consistent with these regulations and any other relevant legislation. However, because it is presently uncertain how the SAFE regulations, and any future legislation concerning offshore or cross-border transactions, will be interpreted and implemented by the relevant government authorities in connection with restructuring by PRC beneficial owners of our company, our future offshore financings or acquisitions, we cannot provide any assurances that we will be able to comply with, qualify under, or obtain any approvals required by the regulations or other legislation. Furthermore, we cannot assure you that any PRC beneficial owners of our company or any PRC company into which we invest is or will in the future be able to comply with those requirements. Any failure or inability by such individuals to comply with SAFE regulations may subject us to fines or legal sanctions, such as restrictions on our cross-border investment activities or our PRC subsidiaries' ability to distribute dividends to, or obtain foreign exchange-denominated loans from, our company or prevent us from making distributions or paying dividends. As a result, our business operations and our ability to make distributions to you could be materially and adversely affected.

Furthermore, as these foreign exchange regulations are still relatively new and their interpretation and implementation has been constantly evolving, it is unclear how these regulations, and any future regulation concerning offshore or cross-border transactions, will be interpreted, amended and implemented by the relevant government authorities. For example, we may be subject to a more stringent review and approval process with respect to our foreign exchange activities, such as remittance of dividends and foreign-currency-denominated borrowings, which may adversely affect our financial condition and results of operations. In addition, if we decide to acquire a PRC domestic company, we cannot assure you that we or the owners of such company, as the case may be, will be able to obtain the necessary approvals or complete the necessary filings and registrations required by the foreign exchange regulations. This may restrict our ability to implement our acquisition strategy and could adversely affect our business and prospects.

Any failure to comply with PRC regulations regarding the registration requirements for employee stock incentive plans may subject the PRC plan participants or us to fines and other legal or administrative sanctions.

In February 2012, SAFE promulgated the Notices on Issues Concerning the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plan of Overseas Publicly Listed Company, replacing earlier rules promulgated in 2007. Pursuant to these rules, PRC citizens and non-PRC citizens who reside in China for a continuous period of not less than one year who participate in any stock incentive plan of an overseas publicly listed company, subject to a few exceptions, are required to register with SAFE through a domestic qualified agent, which could be the PRC subsidiaries of such overseas-listed company, and complete certain other procedures. In addition, an overseas-entrusted institution must be retained to handle matters in connection with the exercise or sale of stock options and the purchase or sale of shares and interests. We and our executive officers and other employees who are PRC citizens or who reside in the PRC for a continuous period of not less than one year and who have been granted options are subject to these regulations. Failure to complete the SAFE registrations may subject them to fines and legal sanctions, there may be additional restrictions on the ability of them to exercise their stock options or remit proceeds gained from sale of their stock into the PRC. We also face regulatory uncertainties that could restrict our ability to adopt additional incentive plans for our directors, executive officers and employees under PRC law. See “Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Stock Incentive Plans.”

If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders.

Under the PRC Enterprise Income Tax Law and its implementation rules, an enterprise established outside of the PRC with its “de facto management body” within the PRC is considered a “resident enterprise” and will be subject to the enterprise income tax on its global income at the rate of 25%. The implementation rules define the term “de facto management body” as the body that exercises full and substantial control and overall management over the business, productions, personnel, accounts and properties of an enterprise. In 2009, the State Taxation Administration, or STA, issued a circular, known as STA Circular 82, which provides certain specific criteria for determining whether the “de facto management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although this circular only applies to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreigners, the criteria set forth in the circular may reflect the STA’s general position on how the “de facto management body” text should be applied in determining the tax resident status of all offshore enterprises. According to STA Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its “de facto management body” in China, and will be subject to PRC enterprise income tax on its global income only if all of the following conditions are met: (i) the primary location of the day-to-day operational management is in the PRC; (ii) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (iii) the enterprise’s primary assets, accounting books and records, company seals, and board and shareholder resolutions are located or maintained in the PRC; and (iv) at least 50% of voting board members or senior executives habitually reside in the PRC.

We believe our company is not a PRC resident enterprise for PRC tax purposes. However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “de facto management body.” If the PRC tax authorities determine that our company is a PRC resident enterprise for enterprise income tax purposes, we will be subject to PRC enterprise income on our worldwide income at the rate of 25%. Furthermore, we will be required to withhold a 10% withholding tax from dividends we pay to our shareholders that are non-resident enterprises, including the holders of the ADSs. In addition, non-resident enterprise shareholders (including our ADS holders) may be subject to PRC tax at a rate of 10% on gains realized on the sale or other disposition of ADSs or ordinary shares, if such gains are treated as derived from a PRC source. Furthermore, if we are deemed a PRC resident enterprise, dividends paid to our non-PRC individual shareholders (including our ADS holders) and any gain realized on the transfer of ADSs or ordinary shares by such shareholders may be subject to PRC tax at a rate of 20% (which, in the case of dividends, may be withheld at source by us). These rates may be reduced by an applicable tax treaty, but it is unclear whether non-PRC shareholders of our company would, in practice, be able to obtain the benefits of any tax treaties between their country of tax residence and the PRC in the event that we are treated as a PRC resident enterprise. Any such tax may reduce the returns on your investment in the ADSs or ordinary shares.

We face uncertainty with respect to indirect transfers of equity interests in PRC resident enterprises by their non-PRC holding companies.

On February 3, 2015, the STA issued the Public Notice Regarding Certain Corporate Income Tax Matters on Indirect Transfer of Properties by Non-Tax Resident Enterprises, or STA Bulletin 7. STA Bulletin 7 extends its tax jurisdiction to transactions involving the transfer of taxable assets through offshore transfer of a foreign intermediate holding company. In addition, STA Bulletin 7 has introduced safe harbors for internal group restructurings and the purchase and sale of equity securities through a public securities market. STA Bulletin 7 also brings challenges to both foreign transferor and transferee (or other person who is obligated to pay for the transfer) of taxable assets.

On October 17, 2017, the STA issued the Announcement of the State Taxation Administration on Issues Concerning the Withholding of Non-resident Enterprise Income Tax at Source, or STA Bulletin 37, which came into effect on December 1, 2017. The STA Bulletin 37 further clarifies the practice and procedure of the withholding of non-resident enterprise income tax.

Where a non-resident enterprise transfers taxable assets indirectly by disposing of the equity interests of an overseas holding company, which is an Indirect Transfer, the non-resident enterprise as either transferor or transferee, or the PRC entity that directly owns the taxable assets, may report such Indirect Transfer to the relevant tax authority. Using a “substance over form” principle, the PRC tax authority may disregard the existence of the overseas holding company if it lacks a reasonable commercial purpose and was established for the purpose of reducing, avoiding or deferring PRC tax. As a result, gains derived from such Indirect Transfer may be subject to PRC enterprise income tax, and the transferee or other person who is obligated to pay for the transfer is obligated to withhold the applicable taxes, currently at a rate of 10% for the transfer of equity interests in a PRC resident enterprise. Both the transferor and the transferee may be subject to penalties under PRC tax laws if the transferee fails to withhold the taxes and the transferor fails to pay the taxes.

We face uncertainties as to the reporting and other implications of certain past and future transactions where PRC taxable assets are involved, such as offshore restructuring, sale of the shares in our offshore subsidiaries and investments. Our company may be subject to filing obligations or taxed if our company is transferor in such transactions, and may be subject to withholding obligations if our company is transferee in such transactions, under STA Bulletin 7 and/or STA Bulletin 37. For transfer of shares in our company by investors who are non-PRC resident enterprises, our PRC subsidiaries may be requested to assist in the filing under STA Bulletin 7 and/or STA Bulletin 37. As a result, we may be required to expend valuable resources to comply with STA Bulletin 7 and/or STA Bulletin 37 or to request the relevant transferors from whom we purchase taxable assets to comply with these circulars, or to establish that our company should not be taxed under these circulars, which may have a material adverse effect on our financial condition and results of operations.

Proceedings instituted by the SEC against Chinese affiliates of the “big four” accounting firms, including our independent registered public accounting firm, could result in financial statements being determined to not be in compliance with the requirements of the Exchange Act.

In December 2012, the SEC instituted administrative proceedings against the Big Four PRC-based accounting firms, including our independent registered public accounting firm, alleging that these firms had violated U.S. securities laws and the SEC’s rules and regulations thereunder by failing to provide to the SEC the firms’ audit work papers with respect to certain PRC-based companies that are publicly traded in the United States.

On January 22, 2014, the administrative law judge, or the ALJ, presiding over the matter rendered an initial decision that each of the firms had violated the SEC’s rules of practice by failing to produce audit papers and other documents to the SEC. The initial decision censured each of the firms and barred them from practicing before the SEC for a period of six months.

On February 6, 2015, the four China-based accounting firms each agreed to a censure and to pay a fine to the SEC to settle the dispute and avoid suspension of their ability to practice before the SEC and audit U.S.-listed companies. The settlement required the firms to follow detailed procedures and to seek to provide the SEC with access to Chinese firms’ audit documents via the CSRC. Under the terms of the settlement, the underlying proceeding against the four China-based accounting firms was deemed dismissed with prejudice four years after entry of the settlement. The four-year mark occurred on February 6, 2019. While we cannot predict if the SEC will further challenge the four China-based accounting firms’ compliance with U.S. law in connection with U.S. regulatory requests for audit work papers or if the results of such a challenge would result in the SEC imposing penalties such as suspensions, if the accounting firms are subject to additional remedial measures, our ability to file our financial statements in compliance with SEC requirements could be impacted. A determination that we have

not timely filed financial statements in compliance with the SEC requirements could ultimately lead to the delisting of our ADSs from the NYSE or the termination of the registration of our ordinary shares under the Securities Exchange Act of 1934, or both, which would substantially reduce or effectively terminate the trading of our ADSs in the United States.

Regulation and censorship of information disseminated over the internet in China may adversely affect our business and reputation and subject us to liability for information displayed on our website.

The PRC government has adopted regulations governing internet access and the distribution of news and other information over the internet. Under these regulations, internet content providers and internet publishers are prohibited from posting or displaying over the internet content that, among other things, violates PRC laws and regulations, impairs the national dignity of China, or is reactionary, obscene, superstitious, fraudulent or defamatory. Failure to comply with these requirements may result in the revocation of licenses to provide internet content and other licenses, and the closure of the concerned websites. The website operator may also be held liable for such censored information displayed on or linked to the websites. If our platform or content is found to be in violation of any such requirements, we may be penalized by relevant authorities, and our operations or reputation could be adversely affected.

It may be difficult for overseas regulators to conduct investigation or collect evidence within China.

Shareholder claims or regulatory investigation that are common in the United States generally are difficult to pursue as a matter of law or practicality in China. For example, in China, there are significant legal and other obstacles to providing information needed for regulatory investigations or litigation initiated outside China. Although the authorities in China may establish a regulatory cooperation mechanism with the securities regulatory authorities of another country or region to implement cross-border supervision and administration, such cooperation with the securities regulatory authorities in the United States may not be efficient in the absence of mutual and practical cooperation mechanism. Furthermore, according to Article 177 of the PRC Securities Law, or Article 177, which became effective in March 2020, no overseas securities regulator is allowed to directly conduct investigation or evidence collection activities within the territory of the PRC. In addition, the Overseas Listing Trial Measures provides, among others, that domestic companies or individuals shall obtain consents from the CSRC and other relevant competent authorities before such domestic companies provide relevant documents and materials required by overseas securities regulators for investigation and collection of evidence. While detailed interpretation of or implementation rules under Article 177 and the above-mentioned provision of the Overseas Listing Trial Measures have yet to be promulgated, the inability for an overseas securities regulator to directly conduct investigation or evidence collection activities within China and the required prior consent from the CSRC may further increase difficulties faced by you in protecting your interests.

Risks Related to Our Class A Ordinary Shares and Our ADSs

Our dual-class share structure with different voting rights may adversely affect the value and liquidity of the ADSs.

We cannot predict whether our dual-class share structure with different voting rights will result in a lower or more volatile market price of the ADSs, in adverse publicity, or other adverse consequences. Certain index providers have announced restrictions on including companies with multiple-class share structures in certain of their indices. For example, in July 2017, FTSE Russell announced that it plans to require new constituents of its indices to have greater than 5% of the company's voting rights in the hands of public stockholders, and S&P Dow Jones announced that it will no longer admit companies with multiple-class share structures to certain of its indices. Also in 2017, MSCI, a leading stock index provider, opened public consultations on their treatment of no-vote and multi-class structures and temporarily barred new multi-class listings from certain of its indices; in October 2018, MSCI announced its decision to include equity securities "with unequal voting structures" in its indices and to launch a new index that specifically includes voting rights in its eligibility criteria. Because of our dual-class structure, we will likely be excluded from these indices and other stock indices that take similar actions. Given the sustained flow of investment funds into passive strategies that seek to track certain indices, exclusion from certain stock indices would likely preclude investment by many of these funds and could make the ADSs less attractive to investors. In addition, several shareholder advisory firms have announced their opposition to the use of multiple class structure and our dual-class structure may cause shareholder advisory firms to publish negative commentary about our corporate governance, in which case the market price and liquidity of the ADSs could be adversely affected.

The trading price of our ADSs has been volatile and may continue to be volatile, regardless of our operating performance.

The trading price of the ADSs is likely to be volatile and could fluctuate widely due to factors beyond our control. This may happen because of broad market and industry factors, including the performance and fluctuation of the market prices of other companies with business operations located mainly in China that have listed their securities in the United States. In addition to market and industry factors, the price and trading volume for the ADSs may be highly volatile for factors specific to our own operations, including the following:

- macro-economic factors in China;

- variations in our net revenues, earnings and cash flows;
- announcements of new investments, acquisitions, strategic partnerships or joint ventures by us or our competitors;
- announcements of new offerings, solutions and expansions by us or our competitors;

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- changes in financial estimates by securities analysts;
- detrimental adverse publicity about us, our services or our industry;
- announcements of new regulations, rules or policies relevant to our business;
- additions or departures of key personnel;
- our controlling shareholder's business performance and reputation;
- allegations of a lack of effective internal control over financial reporting resulting in financial; inadequate corporate governance policies, or allegations of fraud, among other things, involving China-based issuers;
- release of lock-up or other transfer restrictions on our outstanding equity securities or sales of additional equity securities; and
- actual or potential litigation or regulatory investigations.

Any of these factors may result in large and sudden changes in the volume and price at which the ADSs will trade.

In addition, the stock market in general, and the performance and fluctuation of the market prices for internet-related companies and other companies with operations mainly in China in particular, may affect the volatility in the prices of and trading volumes for our ADSs. The securities of some China-based companies that have listed their securities in the United States have experienced significant volatility that often has been unrelated to the operating performance of such companies, including, in some cases, substantial declines in the trading prices of their securities. The trading performances of these companies' securities may affect the attitudes of investors towards Chinese companies listed in the United States in general, which consequently may impact the trading performance of our ADSs, regardless of our actual operating performance. In addition, any negative news or perceptions about inadequate corporate governance practices or fraudulent accounting, corporate structure or other matters of other Chinese companies may also negatively affect the attitudes of investors towards Chinese companies in general, including us, regardless of whether we have engaged in any inappropriate activities. In particular, the global financial crisis, the ensuing economic recessions and deterioration in the credit market in many countries have contributed and may continue to contribute to extreme volatility in the global stock markets. These broad market and industry fluctuations may adversely affect the market price of our ADSs. Volatility or a lack of positive performance in our ADS price may also adversely affect our ability to retain key employees, most of whom have been granted options or other equity incentives.

In the past, shareholders of public companies have often brought securities class action suits against those companies following periods of instability in the market price of their securities. If we were involved in a class action suit, it could divert a significant amount of our management's attention and other resources from our business and operations and require us to incur significant expenses to defend the suit, which could harm our results of operations. Any such class action suit, whether or not successful, could harm our reputation and restrict our ability to raise capital in the future. In addition, if a claim is successfully made against us, we may be required to pay significant damages, which could have a material adverse effect on our financial condition and results of operations.

If securities or industry analysts do not publish research or reports about our business, or if they adversely change their recommendations regarding the ADSs, the market price for the ADSs and trading volume could decline.

The trading market for the ADSs will be influenced by research or reports that industry or securities analysts publish about our business. If one or more analysts who cover us downgrade the ADSs, the market price for the ADSs would likely decline. If one or more of these analysts cease to cover us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the market price or trading volume for the ADSs to decline.

The sale or availability for sale of substantial amounts of ADSs could adversely affect their market price.

Sales of substantial amounts of ADSs in the public market, or the perception that these sales could occur, could adversely affect the market price of the ADSs and could materially impair our ability to raise capital through equity offerings in the future. As of March 31, 2023, we had 35,926,075 Class A ordinary shares (excluding 1,755,011 Class A ordinary shares repurchased in the form of ADSs) and 88,288,360 Class B ordinary shares outstanding. The ADSs representing our Class A ordinary shares sold in our initial public offering are freely

transferable by persons other than our “affiliates” without restriction or further registration under the Securities Act. The remaining ordinary shares outstanding will be available for sale, subject to volume and other restrictions as applicable under Rules 144 and 701 under the Securities Act. We cannot predict what effect, if any, market sales of securities held by our significant shareholders or any other shareholder or the availability of these securities for future sale will have on the market price of the ADSs.

Techniques employed by short sellers may drive down the market price of the ADSs.

Short selling is the practice of selling securities that the seller does not own but rather has borrowed from a third party with the intention of buying identical securities back at a later date to return to the lender. The short seller hopes to profit from a decline in the value of the securities between the sale of the borrowed securities and the purchase of the replacement shares, as the short seller expects to pay less in that purchase than it received in the sale. As it is in the short seller's interest for the price of the security to decline, many short sellers publish, or arrange for the publication of, negative opinions regarding the relevant issuer and its business prospects in order to create negative market momentum and generate profits for themselves after selling a security short. These short attacks have, in the past, led to selling of shares in the market.

Public companies that have substantially all of their operations in China have been the subject of short selling. Much of the scrutiny and negative publicity has centered on allegations of a lack of effective internal control over financial reporting resulting in financial and accounting irregularities and mistakes, inadequate corporate governance policies or a lack of adherence thereto and, in many cases, allegations of fraud. As a result, many of these companies are now conducting internal and external investigations into the allegations and, in the interim, are subject to shareholder lawsuits and/or enforcement actions by the SEC or other U.S. authorities.

It is not clear what effect such negative publicity could have on us. If we were to become the subject of any unfavorable allegations, whether such allegations are proven to be true or untrue, we could have to expend a significant amount of resources to investigate such allegations and/or defend ourselves. While we would strongly defend against any such short seller attacks, we may be constrained in the manner in which we can proceed against the relevant short seller by principles of freedom of speech, applicable state law or issues of commercial confidentiality. Such a situation could be costly and time-consuming, and could distract our management from growing our business. Even if such allegations are ultimately proven to be groundless, allegations against us could severely impact our business operations, and any investment in the ADSs could be greatly reduced or even rendered worthless.

Because we do not expect to pay dividends in the foreseeable future, you must rely on a price appreciation of the ADSs for a return on your investment.

We currently intend to retain most, if not all, of our available funds and any future earnings to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future. Therefore, you should not rely on an investment in the ADSs as a source for any future dividend income.

Our Board of Directors has complete discretion as to whether to distribute dividends, subject to certain requirements of Cayman Islands law. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our directors. Under Cayman Islands law, a Cayman Islands company may pay a dividend out of either profit or share premium account, provided that in no circumstances may a dividend be paid if this would result in the company being unable to pay its debts as they fall due in the ordinary course of business. Even if our Board of Directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on our future results of operations and cash flow, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our Board of Directors. Accordingly, the return on your investment in the ADSs will likely depend entirely upon any future price appreciation of the ADSs. There is no guarantee that the ADSs will appreciate in value or even maintain the price at which you purchased the ADSs. You may not realize a return on your investment in our ADSs and you may even lose your entire investment in the ADSs.

You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under Cayman Islands law.

We are an exempted company incorporated under the laws of the Cayman Islands. Our corporate affairs are governed by our memorandum and articles of association, the Companies Act (As Revised) of the Cayman Islands, or the Companies Act, and the common law of the Cayman Islands. The rights of shareholders to take action against our directors, actions by our minority shareholders and the fiduciary duties of our directors to us under Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from the common law of England and Wales, the decisions of whose courts are of persuasive authority, but are not binding, on a court in the Cayman Islands. The rights of our shareholders and the fiduciary duties of our directors under Cayman Islands law are not as clearly established as

they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands have a less developed body of securities laws than the United States. Some U.S. states, such as Delaware, have more fully developed and judicially interpreted bodies of corporate law than the Cayman Islands. In addition, Cayman Islands companies may not have standing to initiate a shareholder derivative action in a federal court of the United States. In addition, while under Delaware law, controlling shareholders owe fiduciary duties to the companies they control and their minority shareholders, under Cayman Islands law, our controlling shareholders do not owe any such fiduciary duties to our company or to our minority shareholders. Accordingly, our controlling shareholders may exercise their powers as shareholders, including the exercise of voting rights in respect of their shares, in such manner as they think fit, subject only to very limited equitable constraints, including that the exercise of voting rights to amend the memorandum or articles of association of a Cayman company must be exercised in good faith for the benefit of the company as a whole.

Shareholders of Cayman Islands exempted companies like us have no general rights under Cayman Islands law to inspect corporate records (other than the memorandum and articles of association, the register of mortgages and charges and any special resolution passed by the shareholders) or to obtain copies of lists of shareholders of these companies. Our directors have discretion under our MAA to determine whether or not, and under what conditions, our corporate records may be inspected by our shareholders, but are not obliged to make them available to our shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder motion or to solicit proxies from other shareholders in connection with a proxy contest.

Certain corporate governance practices in the Cayman Islands, which is our home country, differ significantly from requirements for companies incorporated in other jurisdictions such as the United States. If we choose to follow home country practice, our shareholders may be afforded less protection than they otherwise would under rules and regulations applicable to U.S. domestic issuers.

As a result of all of the above, our public shareholders may have more difficulty in protecting their interests in the face of actions taken by our management, members of the board of directors or controlling shareholders than they would as public shareholders of a company incorporated in the United States.

Certain judgments obtained against us by our shareholders may not be enforceable.

We are an exempted company limited by shares incorporated under the laws of the Cayman Islands and substantially all of our assets are located outside of the United States. Substantially all of our current operations are conducted in China. In addition, most of our current directors and officers are Chinese nationals and residents of countries other than the United States. Most of the assets of these persons are located outside the United States. As a result, it may be difficult or impossible for you to bring an action against us or against these individuals in the United States in the event that you believe that your rights have been infringed under the U.S. federal securities laws or otherwise. Even if you are successful in bringing an action of this kind, the laws of the Cayman Islands and of China may render you unable to enforce a judgment against our assets or the assets of our directors and officers. However, the deposit agreement gives you the right to submit claims against us to binding arbitration, and arbitration awards may be enforceable against us and our assets in China even when court judgments are not.

ADSs holders may not be entitled to a jury trial with respect to claims arising under the deposit agreement, which could result in less favorable outcomes to the plaintiff(s) in any such action.

The deposit agreement governing the ADSs representing our Class A ordinary shares provides that, to the fullest extent permitted by law, ADS holders waive the right to a jury trial for any claim they may have against us or the depositary arising out of or relating to our shares, the ADSs or the deposit agreement, including any claim under the U.S. federal securities laws.

If we or the depositary were to oppose a jury trial based on this waiver, the court would have to determine whether the waiver was enforceable based on the facts and circumstances of the case in accordance with applicable state and federal law. To our knowledge, the enforceability of a contractual pre-dispute jury trial waiver in connection with claims arising under the federal securities laws has not been finally adjudicated by the United States Supreme Court. However, we believe that a contractual pre-dispute jury trial waiver provision is generally enforceable, including under the laws of the State of New York, which govern the deposit agreement, or by a federal or state court in the City of New York, which has non-exclusive jurisdiction over matters arising under the deposit agreement. In determining whether to enforce a contractual pre-dispute jury trial waiver, courts will generally consider whether a party knowingly, intelligently and voluntarily waived the right to a jury trial. We believe that this would be the case with respect to the deposit agreement and the ADSs. It is advisable that you consult legal counsel regarding the jury waiver provision before investing in the ADSs.

If you or any other holders or beneficial owners of ADSs bring a claim against us or the depositary in connection with matters arising under the deposit agreement or the ADSs, including claims under federal securities laws, you or such other holder or beneficial owner may not be entitled to a jury trial with respect to such claims, which may have the effect of limiting and discouraging lawsuits against us or the depositary. If a lawsuit is brought against us or the depositary under the deposit agreement, it may be heard only by a judge or justice of the applicable trial court, which would be conducted according to different civil procedures and may result in different outcomes than a trial by jury would have, including outcomes that could be less favorable to the plaintiff(s) in any such action.

Nevertheless, if this jury trial waiver is not permitted by applicable law, an action could proceed under the terms of the deposit agreement with a jury trial. No condition, stipulation or provision of the deposit agreement or the ADSs serves as a waiver by any holder or beneficial owner of ADSs or by us or the depository of compliance with any substantive provision of the U.S. federal securities laws and the rules and regulations promulgated thereunder.

The voting rights of holders of ADSs are limited by the terms of the deposit agreement, and you may not be able to exercise your right to direct the voting of the Class A ordinary shares underlying your ADSs.

As a Cayman Islands exempted company, we are not obliged by the Companies Act to call shareholders' annual general meetings. Our MAA provides that we may (but are not obliged to) each year hold a general meeting as our annual general meeting. As a holder of ADSs, you will not have any direct right to attend general meetings of our shareholders or to cast any votes at such meetings. You will only be able to exercise the voting rights which attach to the Class A ordinary shares underlying your ADSs indirectly by giving voting instructions to the depository in accordance with the provisions of the deposit agreement. Under the deposit agreement, you may vote only by giving voting instructions to the depository, as holder of the Class A ordinary shares underlying your ADSs. Upon receipt of your voting instructions, the depository may try to vote the Class A ordinary shares underlying your ADSs in accordance with your instructions. If we ask for your instructions, then upon receipt of your voting instructions, the depository will try to vote the underlying Class A ordinary shares in accordance with those instructions. If we do not instruct the depository to ask for your instructions, the depository may still vote in accordance with instructions you give, but it is not required to do so. You will not be able to directly exercise any right to vote with respect to the underlying Class A ordinary shares unless you withdraw the shares and become the registered holder of such shares prior to the record date for the general meeting. When a general meeting is convened, you may not receive sufficient advance notice of the meeting to enable you to withdraw the shares underlying your ADSs and become the registered holder of such shares prior to the record date for the general meeting to allow you to attend the general meeting and to vote directly with respect to any specific matter or resolution to be considered and voted upon at the general meeting. In addition, under our MAA, for the purposes of determining those shareholders who are entitled to attend and vote at any general meeting, our directors may close our register of members and/or fix in advance a record date for such meeting, and such closure of our register of members or the setting of such a record date may prevent you from withdrawing the Class A ordinary shares underlying your ADSs and becoming the registered holder of such shares prior to the record date, so that you would not be able to attend the general meeting or to vote directly. Where any matter is to be put to a vote at a general meeting, the depository will notify you of the upcoming vote and to deliver our voting materials to you, if we ask it to. We cannot assure you that you will receive the voting material in time to ensure you can direct the depository to vote your shares. In addition, the depository and its agents are not responsible for failing to carry out voting instructions or for their manner of carrying out your voting instructions. This means that you may not be able to exercise your right to direct how the shares underlying your ADSs are voted and you may have no legal remedy if the shares underlying your ADSs are not voted as you requested.

Our dual-class share structure with different voting rights will limit your ability to influence corporate matters and could discourage others from pursuing any change of control transactions that holders of our Class A ordinary shares and the ADSs may view as beneficial.

We have adopted a dual-class share structure. Our ordinary shares consist of Class A ordinary shares and Class B ordinary shares. In respect of matters requiring the votes of shareholders, each Class A ordinary share is entitled to one vote and each Class B ordinary share is entitled to three votes. Each Class B ordinary share is convertible into one Class A ordinary share at any time by the holder thereof. Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances.

NetEase, Dr. Zhou and certain individual minority shareholders who are our employees collectively beneficially owned all of our issued and outstanding Class B ordinary shares as of the date of this annual report. As of March 31, 2023, these Class B ordinary shares constituted approximately 71.1% of our total issued and outstanding share capital and 88.1% of the aggregate voting power of our total issued and outstanding share capital (excluding 1,755,011 Class A ordinary shares repurchased in the form of ADSs). In particular, Class B ordinary shares owned by NetEase constituted approximately 52.6% of our total issued and outstanding share capital and 65.2% of the aggregate voting power of our total issued and outstanding share capital as of March 31, 2023 (excluding 1,755,011 Class A ordinary shares repurchased in the form of ADSs).

As a result of this dual-class share structure and the concentration of ownership, NetEase and the other holders of the Class B ordinary shares as a group will have significant influence over our business, including decisions regarding mergers, consolidations, liquidations and the

sale of all or substantially all of our assets, election of directors and other significant corporate actions. They may take actions that are not in the best interest of us or our other shareholders. This concentration of ownership may discourage, delay or prevent a change in control of our company, which could have the effect of depriving our other shareholders of the opportunity to receive a premium for their shares as part of a sale of our company and may reduce the price of the ADSs. This concentrated control will limit your ability to influence corporate matters and could discourage others from pursuing any potential merger, takeover or other change of control transactions that holders of Class A ordinary shares and ADSs may view as beneficial.

You may experience dilution of your holdings due to the inability to participate in rights offerings.

We may, from time to time, distribute rights to our shareholders, including rights to acquire securities. However, we cannot make such rights available to you in the United States unless we register both the rights and the securities to which the rights relate under the Securities Act or an exemption from the registration requirements is available. Under the deposit agreement, the depositary will not distribute rights to holders of ADSs unless the distribution and sale of rights and the securities to which these rights relate are either exempt from registration under the Securities Act with respect to all holders of ADSs, or are registered under the provisions of the Securities Act. The depositary may, but is not required to, attempt to sell these undistributed rights to third parties, and may allow the rights to lapse. We may be unable to establish an exemption from registration under the Securities Act, and we are under no obligation to file a registration statement with respect to these rights or underlying securities or to endeavor to have a registration statement declared effective. Accordingly, holders of the ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.

You may be subject to limitations on the transfer of your ADSs.

Your ADSs are transferable on the books of the depositary. However, the depositary may close its books at any time or from time to time when it deems it expedient in connection with the performance of its duties. The depositary may close its books in emergencies, and on weekends and public holidays. The depositary may refuse to deliver, transfer or register transfers of our ADSs generally when our share register or the books of the depositary are closed, or at any time if we or the depositary thinks it is advisable to do so because of any requirement of law or of any government or governmental body, or under any provision of the deposit agreement, or for any other reason.

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to U.S. domestic public companies.

Because we qualify as a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the securities rules and regulations in the United States that are applicable to U.S. domestic issuers, including:

- the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q or current reports on Form 8-K;
- the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations in respect of a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and
- the selective disclosure rules by issuers of material nonpublic information under Regulation FD.

We will be required to file an annual report on Form 20-F within four months of the end of each fiscal year. In addition, we intend to publish our results on a quarterly basis as press releases, distributed pursuant to the rules and regulations of the NYSE. Press releases relating to financial results and material events will also be furnished to the SEC on Form 6-K. However, the information we are required to file with or furnish to the SEC will be less extensive and less timely compared to that required to be filed with the SEC by U.S. domestic issuers. As a result, you may not be afforded the same protections or information, which would be made available to you were you investing in a U.S. domestic issuer, which may be difficult for overseas regulators to conduct investigation or collect evidence within China.

We are a “controlled company” within the meaning of the rules of the NYSE and, as a result, can rely on exemptions from certain corporate governance requirements that provide protection to shareholders of other companies.

We are a “controlled company” as defined under the rules of the NYSE since NetEase beneficially owns more than 50% of our total voting power. For so long as we remain a controlled company under this definition, we are permitted to elect to rely, and we currently rely, on certain exemptions from corporate governance rules, including the exemption from the rule that a majority of our board of directors must be independent directors. As a result, you will not have the same protection afforded to shareholders of companies that are subject to these corporate governance requirements.

As an exempted company incorporated in the Cayman Islands, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from the NYSE corporate governance listing standards. These practices may afford less protection to shareholders than they would enjoy if we complied fully with the NYSE corporate governance listing standards.

As a company listed on the NYSE, we are subject to corporate governance listing standards of NYSE. However, NYSE rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the NYSE corporate governance listing standards. We have followed and intend to continue to follow Cayman Islands corporate governance practices in lieu of the corporate governance requirements of the NYSE that listed companies must have a majority of independent directors and that the audit committee consists of at least three members. To the extent that we choose to follow home country practice in the future, our shareholders may be afforded less protection than they otherwise would enjoy under NYSE corporate governance listing standards applicable to U.S. domestic issuers.

There can be no assurance that we will not be a passive foreign investment company, or PFIC, for the current or any future taxable year, which could result in adverse U.S. federal income tax consequences to U.S. investors in the ADSs or our Class A ordinary shares.

In general, a non-U.S. corporation is a PFIC for U.S. federal income tax purposes for any taxable year in which (i) 50% or more of the average value of its assets (generally determined on a quarterly basis) consists of assets that produce, or are held for the production of, passive income, or (ii) 75% or more of its gross income consists of passive income. For purposes of the above calculations, a non-U.S. corporation that owns (or is treated as owning for U.S. federal income tax purposes), directly or indirectly, at least 25% by value of the shares of another corporation is treated as if it held its proportionate share of the assets of the other corporation and received directly its proportionate share of the income of the other corporation. Passive income generally includes dividends, interest, rents, royalties and certain gains. Cash is a passive asset for these purposes. Goodwill is generally characterized as an active asset to the extent that it is associated with business activities that produce active income.

Based on the composition of our income and assets and the value of our assets, including goodwill, which is based on the price of the ADSs, we believe that we were not a PFIC for our 2022 taxable year. However, our PFIC status for any taxable year will depend on the composition of our income and assets and the value of our assets from time to time (which may be determined, in part, by reference to the market price of the ADSs, which has been volatile). Because we hold a substantial amount of cash and financial investments, fluctuations in the market price of our ADSs could cause us to become a PFIC for the current or any future taxable year if the value of our assets (including goodwill) is determined by reference to our market capitalization. Moreover, it is not entirely clear how the contractual arrangements between us and the VIEs will be treated for purposes of the PFIC rules, and we may be or become a PFIC if the VIEs are not treated as owned by us for these purposes. In addition, the extent to which our goodwill should be characterized as an active asset is not entirely clear. Furthermore, our PFIC status for any taxable year is an annual determination that could be made only after the end of that year. Accordingly, there can be no assurance that we will not be a PFIC for any taxable year. If we were a PFIC for any taxable year during which a U.S. taxpayer held ADSs or Class A ordinary shares, the U.S. taxpayer generally would be subject to adverse U.S. federal income tax consequences, including increased tax liability on disposition gains and “excess distributions” and additional reporting requirements. See “Item 10. Additional Information—10.E. Taxation—Material U.S. Federal Income Tax Considerations—Passive Foreign Investment Company Rules.”

ITEM 4. INFORMATION ON THE COMPANY

4.A. History and Development of the Company

Our Major Business Milestones

In 2007, we launched our flagship *Youdao Dictionary*, China’s leading language app.

In 2012, NetEase launched *NetEase Cloud Classroom*, a platform offering online courses mainly targeting adults in China, which was acquired by us in May 2019.

In 2014, we strategically expanded offerings to include online courses by launching *Youdao Classroom*, which was rebranded as *Youdao Premium Courses* in 2016. In the same year, NetEase launched *China University MOOC*, a platform offering online courses primarily

targeting college students and adults in China, which was acquired by us in May 2019.

Between 2016 and 2022, we continued to expand our suite of smart devices, which primarily include *Youdao Dictionary Pen*, *Youdao Smart Learning Pad*, *Youdao Listening Pod*, *Youdao Pocket Translator* and *Youdao Super Dictionary*. We also strategically expanded our learning services to include a wide range of STEAM courses, catering to various age groups' learning needs, which mainly consist of *Youdao Weiqi*, *Youdao iCode*, *Youdao Drosophila Science* and *Youdao Fun Reading*.

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In March 2021, we established Youdao Adult Education Department to promote the integration of the adult education sector of *Youdao Premium Courses*, *NetEase Cloud Classroom* and *China University MOOC*. Mainly operated by *NetEase Cloud Classroom*, this new business unit will help integrate ample academic resources and propel the research and development of adult education courses.

In 2021, we officially launched our education digitalization solutions business and introduced the second generation of *Youdao Smart Learning Terminal*, a device that automates paper-based homework processing and provides learning diagnosis through the AI technology at schools.

We ceased to offer the Academic AST Business in the fourth quarter of 2021, in order to fully comply with applicable PRC regulatory requirements adopted by the PRC government in the second half of 2021.

In 2022, we completed the transition to become a leading technology-focused intelligent learning company, and have developed a comprehensive suite of product and service offerings. We introduced a number of new intelligent learning devices. For example, we launched *Youdao Smart Learning Pad X10* in October 2022, an AI-supported smart learning device that can track and present users' learning performances and provide personalized suggestions. We also launched *Youdao Dictionary Pen X5* and *Youdao Dictionary Pen P5* in August 2022 and October 2022, respectively, both of which are equipped with the first dictionary pen smart operation system. We also expanded our learning services and launched *Youdao Literature Creative Writing*, a series of services to develop and cultivate children's humanistic literacy.

Our Corporate History

We commenced our operations in March 2006 through Youdao Information. In September 2007, Youdao Computer was incorporated in the PRC. We conducted our business through both Youdao Information and Youdao Computer and they were then controlled by NetEase.

In 2014, we strategically shifted our focus to the intelligent learning industry. Since then, we have successfully developed a variety of technology-driven smart devices and learning services.

In November 2014, Youdao, Inc., our current ultimate holding company, was incorporated under the laws of the Cayman Islands.

In July 2016, Youdao HK was incorporated under the laws of Hong Kong. Youdao HK currently operates *U-Dictionary*, an online dictionary and translation app we offer primarily targeting users in selected overseas markets.

Between December 2016 and November 2017, through a number of transactions, we acquired the entire interests in Youdao Information and, through certain contractual arrangements, the control of Youdao Computer.

In April 2018, we issued a total of 6,814,815 Series A preferred shares to certain investors for an aggregate consideration of US\$70.0 million.

Due to the restrictions imposed by PRC laws and regulations on foreign ownership of companies engaged in value-added telecommunication services and certain other businesses, Youdao Information entered into a series of contractual arrangements, as amended and restated, with each of Youdao Computer and Linjiedian Education, as well as their respective shareholders, and Youdao Hangzhou entered into a series of contractual arrangements with Youdao Guangzhou Computer and its shareholders, through such contractual arrangements we are regarded as the primary beneficiary of each of Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer for accounting purposes. We treat them as VIEs under U.S. GAAP and have consolidated the financial results of these entities in our consolidated financial statements in accordance with U.S. GAAP, to the extent the conditions for consolidation of the VIEs under the U.S. GAAP are satisfied. We refer to Youdao Information and Youdao Hangzhou as our wholly foreign owned entities, or WFOEs, and to Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer as the VIEs, in this annual report. For more details and risks related to the VIE structure that we adopt, please see "4.C. Organizational Structure—Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders" and "Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure."

In May 2019, we acquired certain online learning businesses, including *NetEase Cloud Classroom*, *China University MOOC* and *NetEase Kada* (subsequently rebranded as *Youdao Kada*), from the NetEase Group, as we believe these offerings generally appeal to different target audiences from, and as a result complement our existing online course offerings and enable us to reach a broader student

base. Since these businesses were controlled by NetEase both before and after the acquisition, such transactions are accounted for as business combinations under common control. Therefore, our consolidated financial statements included elsewhere in this annual report include these acquired assets and liabilities at their historical carrying value. In addition, our consolidated financial statements included elsewhere in this annual report reflect the results of such acquired businesses as if the current corporate structure, including the transfer of business in May 2019, had been in existence throughout the periods presented.

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In October 2019, we completed an initial public offering in which we offered and sold an aggregate of 5,600,000 Class A ordinary shares in the form of ADSs. Concurrently with the initial public offering, we issued and sold 7,352,941 Class A ordinary shares to Orbis in private placements. Upon the initial public offering, all of our issued and outstanding Series A preferred shares were automatically converted into Class A ordinary shares on a one-for-one basis. On October 25, 2019, the ADSs began trading on the NYSE under the symbol “DAO.”

In December 2020, we disposed of the *Youdao Cloudnote* business operation to an investee co-established by us and NetEase as part of business restructuring within the NetEase Group.

In February 2021, we raised approximately US\$231.6 million of net proceeds through a follow-on offering of ADSs.

In April 2021, the boards of directors of both NetEase and our company approved a proposed revolving loan facility by NetEase to us with a total commitment of US\$300.0 million to support our long-term growth.

On November 17, 2022, our board of directors authorized our company to adopt a share repurchase program for up to US\$20 million of its Class A ordinary shares (including in the form of ADSs) during a period of up to 36 months.

Our corporate headquarters is located at No. 399 Wangshang Road, Binjiang District, Hangzhou 310051, People's Republic of China. Our telephone number at this address is + 86 0571-8985-2163. Our registered office in the Cayman Islands is located at Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands. Our agent for service of process in the United States is Cogency Global Inc. located at 122 East 42nd Street, 18th Floor, New York, N.Y. 10168. Our principal website is www.youdao.com. The information contained on our website is not a part of this annual report.

The SEC maintains an internet site at www.sec.gov that contains reports, information statements, and other information regarding issuers that file electronically with the SEC.

Selected Condensed Consolidating Schedule

The following tables present the selected condensed consolidating schedule of financial information for Youdao, Inc., its wholly owned subsidiaries that are the primary beneficiaries of the VIEs, namely, Youdao Information and Youdao Hangzhou, its other subsidiaries, the VIEs and their subsidiaries that we consolidate for the periods presented.

	As of December 31, 2021					Total
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	
			(RMB in thousands)			
Cash and cash equivalents	122,765	27,172	38,201	134,639	—	322,777
Time deposits	—	—	268	—	—	268
Restricted cash	—	—	—	749,770	—	749,770
Short-term investments	—	490,214	—	13,617	—	503,831
Accounts receivable, net	—	77,637	24,445	146,257	—	248,339
Amounts due from NetEase Group	—	2,389	3,627	176	—	6,192
Amounts due from Youdao Group Companies ⁽¹⁾	2,658,772	72,465	536,080	442,110	(3,709,427)	—
Other assets	229	318,149	202,851	281,661	—	802,890
Total assets	2,781,766	988,026	805,472	1,768,230	(3,709,427)	2,634,067
Contract liabilities	—	40,678	13,227	1,011,734	—	1,065,639
Amounts due to NetEase Group	221	19,174	39,662	23,984	—	83,041
Amounts due to Youdao Group Companies ⁽¹⁾	—	488,385	2,740,421	480,621	(3,709,427)	—

	As of December 31, 2021					
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
			(RMB in thousands)			
Short-term loans from NetEase Group	—	—	878,000	—	—	878,000
Other current liabilities	2,573	366,896	510,562	127,248	—	1,007,279
Long-term loans from NetEase Group	255,028	—	—	—	—	255,028
Investments in subsidiaries and VIEs ⁽³⁾	3,328,600	3,354,116	(113,250)	—	(6,569,466)	—
Total liabilities	3,588,833	4,318,552	4,076,586	1,659,390	(10,278,893)	3,364,468
Total mezzanine equity	—	—	—	78,592	—	78,592
Youdao's shareholders' (deficit)/equity⁽³⁾	(807,067)	(3,328,600)	(3,271,114)	30,248	6,569,466	(807,067)
Noncontrolling interests	—	(1,926)	—	—	—	(1,926)
Total shareholders' (deficit)/equity	(807,067)	(3,330,526)	(3,271,114)	30,248	6,569,466	(808,993)
Total liabilities, mezzanine equity and shareholders' (deficit)/ equity	2,781,766	988,026	805,472	1,768,230	(3,709,427)	2,634,067

	As of December 31, 2022					
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
			(RMB in thousands)			
Cash and cash equivalents	30,418	57,967	456,641	238,585	—	783,611
Time deposits	—	—	273	—	—	273
Restricted cash	—	—	—	873	—	873
Short-term investments	—	—	210,796	21,356	—	232,152
Accounts receivable, net	—	207,679	27,455	170,005	—	405,139
Amounts due from NetEase Group	—	3,789	3,907	192	—	7,888
Amounts due from Youdao Group Companies ⁽¹⁾	2,932,344	143,829	1,206,593	1,393,802	(5,676,568)	—
Other assets	9,180	259,705	220,377	356,958	—	846,220
Total assets	2,971,942	672,969	2,126,042	2,181,771	(5,676,568)	2,276,156
Contract liabilities	—	23,669	26,587	1,017,029	—	1,067,285
Amounts due to NetEase Group	2,447	895	57,929	7,538	—	68,809
Amounts due to Youdao Group Companies ⁽¹⁾	—	360,472	4,465,751	850,345	(5,676,568)	—
Short-term loans from NetEase Group	—	—	878,000	—	—	878,000
Other current liabilities	4,382	410,837	546,923	202,382	—	1,164,524
Long-term loans from NetEase Group	522,345	—	—	—	—	522,345
Investments in subsidiaries and VIEs ⁽³⁾	3,976,660	3,841,106	(59,452)	—	(7,758,314)	—
Total liabilities	4,507,031	4,656,385	5,920,539	2,104,357	(13,434,882)	3,753,430
Total mezzanine equity	—	—	—	64,571	—	64,571
Youdao's shareholders' (deficit)/equity⁽³⁾	(1,535,089)	(3,976,660)	(3,794,497)	12,843	7,758,314	(1,535,089)
Noncontrolling interests	—	(6,756)	—	—	—	(6,756)
Total shareholders' (deficit)/equity	(1,535,089)	(3,983,416)	(3,794,497)	12,843	7,758,314	(1,541,845)
Total liabilities and shareholders' (deficit)/equity	2,971,942	672,969	2,126,042	2,181,771	(5,676,568)	2,276,156

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	For the Year Ended December 31, 2020					
	Youdao, Inc	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
	(RMB in thousands)					
Net revenues:						
Third-party net revenues	—	145,698	588,146	1,792,962	—	2,526,806
Intra-Group net revenues related to technical consulting and related services ⁽⁴⁾	—	126,418	1,275,953	—	(1,402,371)	—
Other intra-Group net revenues ⁽⁵⁾	—	166,863	3,584	552	(170,999)	—
Total net revenues	—	438,979	1,867,683	1,793,514	(1,573,370)	2,526,806
Cost and expenses:						
Third-party cost and expenses	(13,008)	(486,182)	(2,457,259)	(421,814)	—	(3,378,263)
Intra-Group cost and expenses related to technical consulting and related services ⁽⁴⁾	—	—	—	(1,402,371)	1,402,371	—
Other intra-Group cost and expenses ⁽⁵⁾	—	(3,753)	(166,139)	(1,107)	170,999	—
Total cost and expenses	(13,008)	(489,935)	(2,623,398)	(1,825,292)	1,573,370	(3,378,263)
Loss from operations	(13,008)	(50,956)	(755,715)	(31,778)	—	(851,457)
Share of (loss)/income of subsidiaries and VIEs ⁽³⁾	(1,762,633)	(1,634,507)	24,161	—	3,372,979	—
Net (loss)/income from continuing operations	(1,752,789)	(1,724,766)	(714,932)	20,483	3,372,979	(799,025)
Net loss from discontinued operations						(954,327)
Net (loss)/income attributable to ordinary shareholders of the company	(1,752,789)	(1,762,633)	(1,634,558)	24,212	3,372,979	(1,752,789)

	For the Year Ended December 31, 2021					
	<u>Youdao, Inc.</u>	<u>Other Subsidiaries</u>	<u>Primary beneficiaries of VIEs</u>	<u>VIEs and their subsidiaries</u>	<u>Eliminations</u>	<u>Total</u>
	(RMB in thousands)					
Net revenues:						
Third-party net revenues	—	233,070	1,032,114	2,750,610	—	4,015,794
Intra-Group net revenues related to technical consulting and related services ⁽⁴⁾	—	128,974	2,092,225	—	(2,221,199)	—
Other intra-Group net revenues ⁽⁵⁾	—	549,236	46,851	941	(597,028)	—
Total net revenues	—	911,280	3,171,190	2,751,551	(2,818,227)	4,015,794
Cost and expenses:						
Third-party cost and expenses	(13,048)	(873,420)	(3,511,302)	(561,272)	—	(4,959,042)
Intra-Group cost and expenses related to technical consulting and related services ⁽⁴⁾	—	—	—	(2,221,199)	2,221,199	—
Other intra-Group cost and expenses ⁽⁵⁾	—	(34,756)	(551,599)	(10,673)	597,028	—
Total cost and expenses	(13,048)	(908,176)	(4,062,901)	(2,793,144)	2,818,227	(4,959,042)
(Loss)/Income from operations	(13,048)	3,104	(891,711)	(41,593)	—	(943,248)
Share of loss of subsidiaries and VIEs ⁽³⁾	(989,148)	(806,306)	(55,055)	—	1,850,509	—
Net loss from continuing operations	(995,655)	(791,025)	(931,396)	(58,520)	1,850,509	(926,087)
Net loss from discontinued operations						(100,267)
Net loss attributable to ordinary shareholders of the company	(995,655)	(989,148)	(834,408)	(26,953)	1,850,509	(995,655)

	For the Year Ended December 31, 2022					
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
			(RMB in thousands)			
Net revenues:						
Third-party net revenues	—	1,321,894	185,818	3,505,470	—	5,013,182
Intra-Group net revenues related to technical consulting and related services ⁽⁴⁾	—	—	2,767,812	—	(2,767,812)	—
Other intra-Group net revenues ⁽⁵⁾	—	380,029	151,876	10,512	(542,417)	—
Total net revenues	—	1,701,923	3,105,506	3,515,982	(3,310,229)	5,013,182
Cost and expenses:						
Third-party cost and expenses	(12,861)	(1,772,728)	(3,242,309)	(759,964)	—	(5,787,862)
Intra-Group cost and expenses related to technical consulting and related services ⁽⁴⁾	—	—	—	(2,767,812)	2,767,812	—
Other intra-Group cost and expenses ⁽⁵⁾	—	(146,346)	(393,386)	(2,685)	542,417	—
Total cost and expenses	(12,861)	(1,919,074)	(3,635,695)	(3,530,461)	3,310,229	(5,787,862)
Loss from operations	(12,861)	(217,151)	(530,189)	(14,479)	—	(774,680)
Share of loss of subsidiaries and VIEs ⁽³⁾	(701,280)	(499,247)	(63,392)	—	1,263,919	—
Net loss from continuing operations	(727,032)	(706,110)	(539,015)	(31,540)	1,263,919	(739,778)
Net loss from discontinued operations						(6,105)
Net loss attributable to ordinary shareholders of the company	(727,032)	(701,280)	(544,883)	(17,756)	1,263,919	(727,032)

	For the Year Ended December 31, 2020					
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
			(RMB in thousands)			
Cash flows from operating activities:						
Net cash provided by/(used in) transactions with external parties	14,409	(472,888)	(2,897,799)	3,034,716	—	(321,562)
Net cash provided by/(used in) transactions with intra-Group companies related to technical consulting and related services	—	840,100	2,258,731	(3,098,831)	—	—
Net cash provided by/(used in) other transactions with intra-Group companies	—	43,979	(45,592)	1,613	—	—
Net cash provided by/(used in) operating activities	14,409	411,191	(684,660)	(62,502)	—	(321,562)
Cash flows from investing activities:						
Net cash provided by/(used in) transactions with external parties	1,236,356	(454,859)	(86,036)	65,510	—	760,971
Loan made to subsidiaries ⁽²⁾	(1,236,543)	—	—	—	1,236,543	—
Net cash (used in)/provided by investing activities	(187)	(454,859)	(86,036)	65,510	1,236,543	760,971
Cash flows from financing activities:						
Net cash provided by transactions with external parties	26,559	—	—	—	—	26,559
Loan received from Parent Company ⁽²⁾	—	183,359	1,053,184	—	(1,236,543)	—
Net cash provided by financing activities	26,559	183,359	1,053,184	—	(1,236,543)	26,559

For the Year Ended December 31, 2021						
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
	(RMB in thousands)					
Cash flows from operating activities:						
Net cash (used in)/provided by transactions with external parties	(7,763)	(868,319)	(3,748,495)	3,278,167	—	(1,346,410)
Net cash provided by/(used in) transactions with intra-Group companies related to technical consulting and related services	—	19,500	2,389,800	(2,409,300)	—	—
Net cash (used in)/provided by other transactions with intra-Group companies	(1,277)	573,599	(571,623)	(699)	—	—
Net cash (used in)/provided by operating activities	(9,040)	(275,220)	(1,930,318)	868,168	—	(1,346,410)
Cash flows from investing activities:						
Net cash provided by transactions with external parties	9,843	12,655	16,026	8,550	—	47,074
Loan made to subsidiaries ⁽²⁾	(1,759,925)	—	—	—	1,759,925	—
Net cash (used in)/provided by investing activities	(1,750,082)	12,655	16,026	8,550	1,759,925	47,074
Cash flows from financing activities:						
Net cash provided by transactions with external parties	1,783,713	—	—	—	—	1,783,713
Loan received from Parent Company ⁽²⁾	—	105,480	1,654,445	—	(1,759,925)	—
Net cash provided by financing activities	1,783,713	105,480	1,654,445	—	(1,759,925)	1,783,713
For the Year Ended December 31, 2022						
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
	(RMB in thousands)					
Cash flows from operating activities:						
Net cash (used in)/provided by transactions with external parties	(20,057)	(563,565)	(2,970,139)	2,950,638	—	(603,123)
Net cash provided by/(used in) transactions with intra-Group companies related to technical consulting and related services	—	—	2,944,165	(2,944,165)	—	—
Net cash (used in)/provided by other transactions with intra-Group companies	(488)	534,758	54,872	(589,142)	—	—
Net cash (used in)/provided by operating activities	(20,545)	(28,807)	28,898	(582,669)	—	(603,123)

	For the Year Ended December 31, 2022					
	Youdao, Inc.	Other Subsidiaries	Primary beneficiaries of VIEs	VIEs and their subsidiaries	Eliminations	Total
	(RMB in thousands)					
Cash flows from investing activities:						
Net cash provided/(used in) by transactions with external parties	—	26,607	161,498	(62,282)	—	125,823
Capital injection to subsidiaries ⁽³⁾	—	—	(25,000)	—	25,000	—
Loan made to subsidiaries ⁽²⁾	(272,940)	—	(30,000)	—	302,940	—
Recovery of loan made to subsidiaries ⁽²⁾	14,354	—	—	—	(14,354)	—
Net cash (used in)/provided by investing activities	(258,586)	26,607	106,498	(62,282)	313,586	125,823
Cash flows from financing activities:						
Net cash provided by transactions with external parties	184,649	—	—	—	—	184,649
Proceeds received from ordinary shareholders ⁽³⁾	—	25,000	—	—	(25,000)	—
Loan received from Parent Company and Primary beneficiaries of VIEs ⁽²⁾	—	30,000	272,940	—	(302,940)	—
Repayment of loan from parent company ⁽²⁾	—	(14,354)	—	—	14,354	—
Net cash provided by financing activities	184,649	40,646	272,940	—	(313,586)	184,649

Notes:

- (1) It represents the elimination of intercompany balances among Youdao, Inc., other subsidiaries, primary beneficiaries of the VIEs, and VIEs and their subsidiaries.
- (2) It represents the elimination of loans from Youdao, Inc. to other subsidiaries and primary beneficiaries of the VIEs, and loans from primary beneficiaries of the VIEs to other subsidiaries.
- (3) It represents the elimination of the investments among Youdao, Inc., other subsidiaries, primary beneficiaries of the VIEs, and the VIEs and their subsidiaries.
- (4) It represents the elimination of the intercompany technical consulting and related services at the consolidation level.
- (5) It represents the elimination of other intercompany transactions at the consolidation level.

4.B. Business Overview

What is Youdao

Youdao makes learning happen.

Since its inception, Youdao has developed and used technologies to provide learning applications, content, devices and solutions to users of all ages.

We are a leading technology-focused intelligent learning company in China. Starting from online knowledge tools, we currently offer a comprehensive suite of smart devices and learning services that are accessible, reliable and trustworthy.

Today, for tens of millions of people, Youdao is the go-to destination for looking up a word, translating a foreign language, preparing for an exam, or picking up a new skill. Through technology, we enrich the lives of people of all ages every day, guiding them on their journey of pursuing knowledge and sharing ideas.

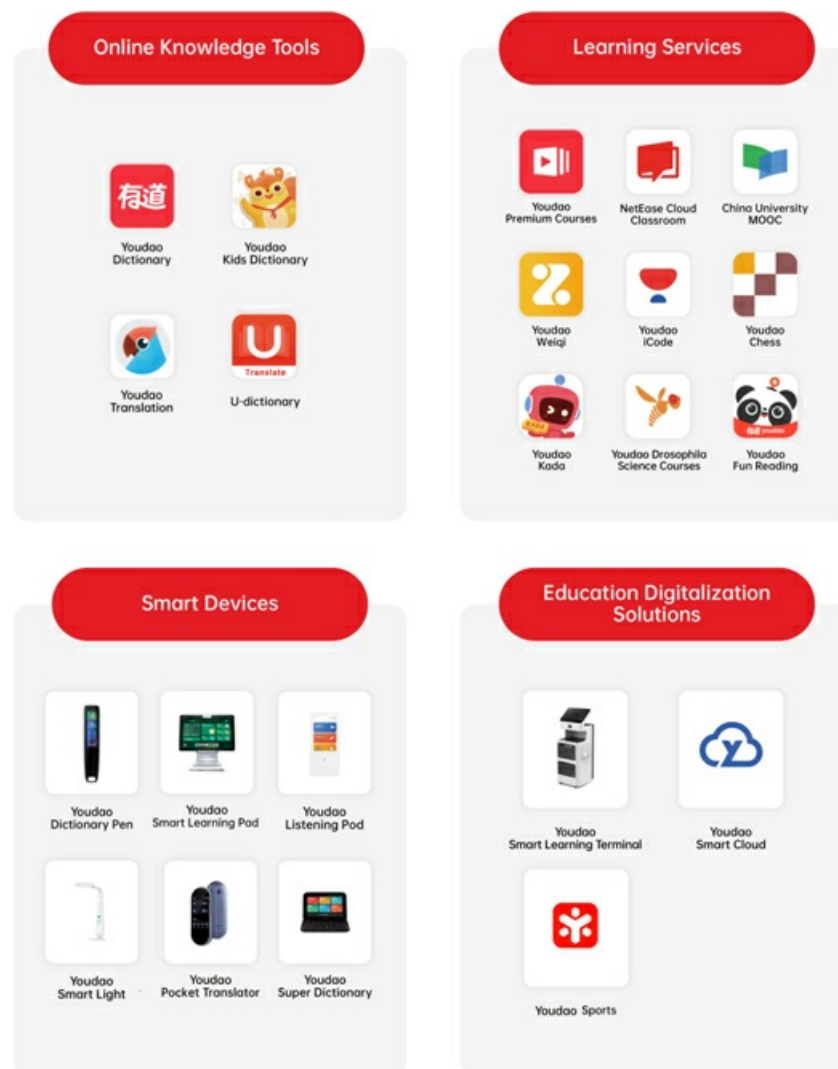
What Youdao Offers

Youdao was founded in 2006 as part of NetEase, a leading internet technology company in China, dedicated to providing online services centered around content, community, communication and commerce. In 2007, we launched our flagship *Youdao Dictionary*, which is China's

leading language app. *Youdao Dictionary* had 47.1 million average MAUs in 2022.

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The early success of *Youdao Dictionary* has enabled us to attract a massive user base, build a strong brand, and expand into a broad range of products and services addressing people's lifelong learning needs:



- **Online knowledge tools**—a collection of dictionaries, empowered by leading-edge technologies. Our tools are convenient, smart and powerful. We offer most of them for free, but monetize their massive user bases mainly through advertising. As these tools become ubiquitous in people's lives, they have also helped drive organic user traffic to our learning services and other products and services.

- **Learning services**—primarily include (1) STEAM courses (operated mainly through *Youdao Premium Courses*), mainly consisting of *Youdao Weiqi*, *Youdao iCode*, *Youdao Kada*, *Youdao Drosophila Science* and *Youdao Fun Reading*, (2) digital content services, which provide interactive learning features, (3) adult and vocational courses (operated through *NetEase Cloud Classroom*) including foreign language courses, post-graduate school entrance exam prep courses, vocational education courses, and digital skills training courses, and (4) other courses such as *China University MOOC*. We use our extensive experience and know-how from the current course offerings to train instructors and teaching assistants and inform our course development, which help us attract and retain students. We integrate our core technologies into the learning and teaching process to create an engaging, interactive and customized learning experience across our learning services.

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- **Smart devices**—primarily include *Youdao Dictionary Pen*, *Youdao Smart Learning Pad*, *Youdao Listening Pod*, *Youdao Smart Light*, *Youdao Pocket Translator* and *Youdao Super Dictionary*. Our approach to such devices is a seamless integration of AI algorithms and data processing into hardware devices that supplement our online knowledge tools and learning services. Our smart devices allow us to further enhance users' learning experience and efficiency.
- **Education digitalization solutions**—include technologies and solutions licensed to schools or enterprise customers, such as *Youdao Smart Learning Terminal*, *Youdao Smart Cloud* and *Youdao Sports*.

Our products and services are built upon a common set of core technologies, which allows us to use data insights gained from an individual product or service to help optimize our entire product and service portfolio. Our business has evolved significantly since inception and we are continuously reimagining and innovating our products and services. We are doing this not only to cater to, but influence, the learning habits and lifestyles of our users, to fulfill their goals and enrich their lives.

Our Technologies

Our leadership in technology is built by our smart, creative, diverse and dedicated team. We had a team of 1,123 R&D and related personnel as of December 31, 2022, whose expertise spans a broad range of disciplines, from natural language processing and computer vision, to automatic speech recognition, machine learning and data mining. We have also founded *Youdao AI Lab*, our innovation center, to drive technology, enhance innovation and nurture aspiring engineers and entrepreneurs to propel our long-term growth.

Over the years, we have developed the following core technologies to deliver an effective and enjoyable learning experience to our users across our comprehensive suite of smart devices and learning services:

- **Optical character recognition (OCR)**. We offer a wide suite of proprietary OCR technologies specifically designed to recognize massive volumes of physical learning materials. Our OCR technologies enable swift and precise recognition of (i) cursive handwriting; (ii) text in mixed languages; and (iii) tilted texts.
- **Language data mining**. We pioneered the development of systems to crawl the web for hundreds of millions of words and expressions in “parallel” language pairs. This has enabled us to accurately translate millions of rare, “out-of-dictionary” words, phrases and terms, such as the titles of movies, books, names of individuals, and new technical terminologies. In addition, we are also able to mine from the web bilingual sentence pairs using natural language processing (NLP) techniques. To achieve optimal translation results, we align parallel language data with our algorithms to filter noisy, less reliable data.
- **Neural machine translation (NMT) engine**. NMT is an innovative approach to machine translation, which leverages deep learning of language data to produce significantly better translation results as compared to traditional machine translation models. According to our internal evaluation based on Bilingual Evaluation Understudy, or BLEU, a widely recognized method for evaluating machine translation, we outperformed other mainstream online translation services in China and globally in the accuracy of translation from Chinese to another language.
- **Automatic speech recognition (ASR) and text-to-speech (TTS)**. We have developed advanced ASR technologies with industry-leading accuracy rates in Chinese and English. We use extensive human voice data generated by our users to reinforce our ASR models to improve recognition accuracy. We also have developed industry-leading TTS capability that converts text into human-like speech in Chinese, English, Japanese, Korean and Portuguese, powered by machine learning, facilitating lifelike interactions with our users.
- **Data analytics for adaptive learning**. We have built our proprietary adaptive learning engine and machine learning technologies to analyze massive data from students' interactions with us to understand students' learning progress, provide intelligent and personalized feedback, and make predictions about their future performance.
- **Live-streaming technologies**. Our live-streaming technologies and platforms can deliver superior reliability, scalability and performance. Our proprietary audio-visual coding and streaming technologies make it possible for us to stream each live class to a massive number of participants simultaneously with low loss rates, even over weak internet connections. We also offer various features, such as voice chats among multiple users and various visual and audio effects, to enhance the live-streaming learning experience.

Our Offerings

A Holistic Product Innovation Approach

Learning is a lifelong process. With this in mind, we offer a comprehensive portfolio of smart devices and learning services to cater to people's varying learning needs throughout their lives.

- *Online knowledge tools*, including *Youdao Dictionary* and other dictionary and translation tools;
- *Learning services*, mainly including STEAM courses, digital content services, adult and vocational courses, and other courses such as *China University MOOC*; and
- *Smart devices*, primarily including *Youdao Dictionary Pen*, *Youdao Smart Learning Pad*, *Youdao Listening Pod*, *Youdao Smart Light*, *Youdao Pocket Translator* and *Youdao Super Dictionary*;
- *Education digitalization solutions*, mainly including technologies and solutions licensed to schools or enterprise customers, such as *Youdao Smart Learning Terminal*, *Youdao Smart Cloud* and *Youdao Sports*.

We take an integrated, holistic approach to grow and manage our offerings, resulting in significant economies of scale and synergies. The massive loyal user base of our knowledge tools and services generates organic traffic to our other product and service offerings with a strong potential for monetization. As we continued to develop our learning services primarily including STEAM courses, digital content services and adult and vocational courses, we also benefitted from our strong course and content development capabilities, accumulated from developing our Academic AST Business historically. These synergies have effectively lowered our product development and user acquisition costs, allowing us to invest in technology and launch new offerings in a scalable way.

Our offerings are fully integrated from a technology and data perspective—we have built our core technologies to support the full range of our offerings, and through our massive user base, we have amassed extensive data to deepen our data insights and train our algorithms to drive operational efficiencies and enhance user experience across our offerings.

Online Knowledge Tools

Youdao Dictionary

Launched in 2007, *Youdao Dictionary* is our very first major product and flagship online language tool. Today, it is China's most popular and trusted online dictionary and translation tool. *Youdao Dictionary* is China's leading language app and it had 47.1 million MAUs in 2022. *Youdao Dictionary* has the following core features and strengths:

Extensive content. *Youdao Dictionary* provides users with easy and intuitive access to concise dictionaries created by our in-house editorial staff. Powered by web reference mining technologies, it also provides an extensive array of machine-generated language-related content, including audio pronunciations, internet slang, buzzwords and bilingual example sentences. Users can also access 24 licensed dictionaries and encyclopedias, such as the New Oxford English-Chinese Dictionary and Collins Comprehensive English-English-Chinese Dictionary. As of December 31, 2022, *Youdao Dictionary* offered over 794 million entries across 109 languages.

Superior translation results. *Youdao Dictionary* translates words, sentences or even paragraphs as one speaks, types, writes or takes a picture. As of December 31, 2022, *Youdao Dictionary* supported two-way translation across 109 languages. In 2022, *Youdao Dictionary* processed a daily average of 36.6 million translation queries, making it one of the most frequently used online translation services in China. We believe *Youdao Dictionary* delivers best-in-class accuracy and translation quality, powered by our proprietary NMT engine, which continually learns how to deliver more accurate and natural-sounding translation from a massive web and user database.

Rich user-centric functions. *Youdao Dictionary* offers a variety of tools and functions to enhance user experience, including:

- *Instant camera translation*, which allows users to use their camera to near-instantly translate text from image across 22 languages, supported by our advanced OCR technologies.

- *Instant speech-to-speech and speech-to-text translation*, which translates instantly as the user speaks into text or spoken word across 44 languages, powered by our ASR and TTS capabilities.
- *Whole-document translation*, which allows users to upload and quickly translate entire documents in various formats.
- *Mouse-over translation*, which works as a plug-in to mainstream web browsers, allowing users to view translation of text displayed on-screen instantly.

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- *Offline model*, which allows users to access the dictionary and translation library without connecting to the internet.
- *Writing Guide*, a personalized, AI-enabled writing assessment tool across vocabulary, grammar and tense for students of all ages. Leveraging our self-developed OCR and NLP technologies, *Writing Guide* recently introduced a function of word choice suggestions, which is aimed to enable students to deliver impeccable, mistake-free writing.

We design *Youdao Dictionary* as an all-in-one app connecting users to a wide range of learning tools and resources with its interface purpose-built to attract user traffic to our other offerings. For example, *Youdao Dictionary*'s navigation bar allows users to view and enroll in our tutoring courses, and offers features from our automated English essay grader, all within the *Youdao Dictionary* app without the need to separately download other apps.

Currently, *Youdao Dictionary* is accessed mostly through our *Youdao Dictionary* mobile app that incorporates the full range of our online dictionary and translation services, although users can access the online dictionary functions and the translation functions through respective websites. Most of *Youdao Dictionary*'s functions are offered to users free of charge, with an option for users to pay monthly subscription fees for additional privileges, features and content.

Other Online Dictionary and Translation Tools

In addition to *Youdao Dictionary*, we offer the following online dictionary and translation tools to address diverse user needs:

- ***Youdao Translation***, a tool specifically designed to support translation needs of business and leisure travelers across over 31 languages via camera and speech translation. *Youdao Translation* had 9.4 million average MAUs in 2022.
- ***U-Dictionary***, an online dictionary and translation app we offer in Indonesia and other overseas markets; see “—Global Opportunities.”
- ***Youdao Kids' Dictionary***, a smart tool that offers translation services in Chinese and English, with extensive content and interactive tools designed to make it fun to learn languages.

Despite their varying target user groups, these tools offer a substantially similar set of features and functions as *Youdao Dictionary* and are supported by the same set of language-centric technologies, including our NMT engine and language data mining.

Learning Services

We have developed comprehensive offerings of learning services catering to the diverse learning needs of different age groups. Our learning service offerings mainly consist of (i) *STEAM courses*; (ii) *digital content services*; (iii) *adult and vocational courses*; and (iv) other courses, such as *China University MOOC*.

STEAM Courses

In connection with our disposal of our Academic AST Business, we have been strategically shifting our focus to offering STEAM courses under the brand of *Youdao Premium Courses*. Our current STEAM courses primarily include (i) *Youdao Weiqi*, (ii) computer coding courses and (iii) other STEAM courses.

- ***Youdao Weiqi***. We launched *Youdao Weiqi* (*Youdao Zongheng* in Chinese) in 2020, an interest course that combines unique animation teaching with AI-powered quizzes and practices. Leveraging our proprietary AI technology, students can practice adaptively with various levels of difficulty, and we will generate learning reports automatically for both parents and students, including an intelligent analysis on diverse capabilities. In 2021, we upgraded our *Weiqi* AI system and launched a WeChat mini-program, which features real-time assessments and interactive functions so that students can check their learning progress on their mobile devices in real-time. In 2022, we launched the National Children's *Weiqi* Open Championship in collaboration with Chinese *Weiqi* Association and Jiangsu Chess Sports Association. We also launched the *Youdao Boardgame Academy* app in the same year, on which users can learn Go and chess with the help of our AI technology and play against each other.

- **Computer coding courses.** Through *iCode*, we offer a wide range of online coding courses on professional computer coding, such as Scratch, Python and C++. We develop the *iCode* curriculum by ourselves and in collaboration with experts from renowned institutions in China. In addition, we offer *Youdao Kada*, a platform of basic online coding courses, as well as a selection of engaging, gamified tools to spark kids' interests in coding. *Youdao Kada* also offers an online virtual community where kids can share their creative work with the world. We acquired the *NetEase Kada* (subsequently rebranded as *Youdao Kada*) operations from the NetEase Group in May 2019. In 2021, we launched a new C++ offline course, in response to our users' diverse and evolving needs. *Youdao iCode* features a Certified Software Professional assessment tool, which allows students to better track their programming learning progress. According to China Computer Federation, the organizing body of Certified Software Professional and National Olympiad in Informatics in Provinces contests, *Youdao iCode* became a Programming Trainer Accreditation (PTA) member in September 2021. In 2022, we launched the self-developed ranking estimation system for CSP-J/S with an accuracy rate of 98%, which is a pioneering product in the informatics training industry.

Digital content services

In 2022, we launched digital content services with interactive learning features. Through provision of digital content services, we customize learning tracks for students based on their diverse and ever-evolving learning needs, providing them with personalized exercise banks and quizzes to enhance their learning experience. In addition, our video tutorials offer fragmented knowledge and exercises to help students achieve superior learning outcomes.

Adult and Vocational Courses

We offer adult and vocational courses primarily through our *NetEase Cloud Classroom*, a platform providing tutoring services mainly targeting adults in China.

- **Graduate school entrance exam courses.** We provide exam preparation courses for postgraduate entrance exams, which include comprehensive solutions, such as target consulting and hybrid tutoring by instructors and teaching assistants using AI technology.
- **Foreign language courses.** We offer courses for postsecondary students wishing to improve their English proficiency and English language skills in specific areas, such as grammar, vocabulary or oral communications. We also provide preparation courses for students looking to take various English proficiency tests, ranging from TOEFL and IELTS, to the English test in the post-graduate entrance exams and other English certification exams in China, as well as courses on an increasing number of other popular languages, such as Japanese, Korean and Spanish. Our popular foreign language courses include Practical English designed to teach English grammar in a logical, systematic, and easily digestible way using a formulaic approach to understand complex grammatical forms. Practical English has been one of the most popular courses among our *NetEase Cloud Classroom*. We also offer practice exercises for students to test what they learn and see personalized feedback and analysis generated by algorithms.
- **Professional certification and skill courses.** Our professional certification and skill course offerings mainly consist of certification preparation courses covering various professions, such as IT, accounting, human resources and teaching, all designed to equip students with the skills and knowledge sets required in workplaces to elevate their career prospects.
- **Digital training courses of AWS.** We launched approximately 100 digital training courses of Amazon Web Services (AWS) in Chinese in 2021, which were created by Amazon Web Services experts to help learners improve their cloud computing-related skills.

As of December 31, 2022, we offered more than 4,100 adult and vocational courses, which were either prerecorded or delivered in a live format. These adult and vocational courses are developed by ourselves in-house or by third parties, and for those courses developed by third parties, we are authorized by the course content developers to offer the courses on our online platforms and share with them the revenues generated from the sales of the courses.

Other courses

Our other courses primarily include *China University MOOC*. MOOC stands for “massive open online course,” which is a course designed to offer free or low-cost access to learning resources to a wide audience. In collaboration with the Higher Education Press, a publishing house under the supervision of the Ministry of Education of the PRC, we operate *China University MOOC*, a platform offering online courses primarily targeting college students and adults in China. Our *China University MOOC* courses mainly include:

- courses in specific subjects across a wide range of academic disciplines commonly taught in postsecondary and higher education institutions in China, including both “general” courses to provide a general idea of the subjects covered and “crash courses” specifically designed for exam-taking students;
- test preparation courses for students preparing for the postgraduate admission exams of universities and higher education institutions in China; and

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- vocational and professional training courses that cover a broad spectrum of occupations and professions, such as teaching, computer science, and business management.

China University MOOC offered over 10,516 courses as of December 31, 2022, making it the leading MOOC platform in China. The *China University MOOC* courses are either prerecorded or live-streamed.

Most of the courses on *China University MOOC* are developed by third parties, mostly universities and other types of higher education institutions in China, and are offered for free. A minority of the courses on *China University MOOC*, mostly test preparation courses, are offered for tuition, and we are authorized by the course content providers to offer such courses on our online platform and share with them the revenues generated from sales of the courses.

Features of Our Learning Services

Technology-Driven Learning Experience

We integrate technologies into every major aspect of the learning and teaching process to ensure a superb learning experience. Our technology-driven learning experience provides the following key strengths:

- **AI tutoring.** We offer a set of advanced AI-based technologies, which we collectively refer to as our “AI tutoring,” to make learning more personalized and efficient while maintaining a high level of human touch.
- **Knowledge graph.** Based on our AI technology and data analytics, we have built massive “knowledge graphs” depicting different knowledge points, concepts and learning objectives, and supported a large quiz bank curated by our course development professionals to help students understand the subject matter. As of December 31, 2022, we have created 101 sets of knowledge graphs covering over 37,764 knowledge points.
- **Adaptive learning.** Unlike a one-size-fits-all approach, we track each student’s learning progress and then dynamically adapt our teaching to the student’s unique learning needs at a pace and level of difficulty that best benefits such students. Our adaptive learning approach also gives the faculty insight into how students are moving through the curriculum as individual students and subject and class levels evolve, which allows them to make appropriate instructional, intervention and course development decisions.
- **Customized educational content.** Leveraging our superior adaptive learning technology and data analytics, we collect student learning and behavior data throughout their learning cycles to help us understand their learning progress and predict through our adaptive learning model how they will perform to achieve future learning objectives. This enables us to provide our users with personalized learning content tailored to their study progress to ensure continuous learning improvement.

Course Development

We focus on cultivating creativity, craftsmanship and teamwork to develop the best content for our users. Throughout the years, we observed that many online education providers depend on a limited number of popular “star teachers” to deliver high-quality content. To address this limitation, we implement a standardized system for curriculum and learning content to ensure high-quality teaching by our instructors and teaching assistants.

Our course development decisions at all levels are informed by our extensive data insights into students’ learning patterns and behaviors. For example, our adaptive learning solutions generate detailed data at individual student, subject and class levels, such as the most frequently committed errors, which is used to guide our course development processes. Our course development efforts are also informed by first-hand feedback and recommendations from instructors and students and analytics generated by our smart devices. See “—Our Offerings—Learning services—Technology-Driven Learning Experience.”

Live Course Delivery

We deliver our learning services primarily in a live-streaming format, which provides the following benefits:

- ***Accessible and flexible.*** The live-streaming format maximizes flexibility for students to learn anytime, anywhere. Each live class is recorded and available for replay, allowing our users to learn at their own pace.
- ***Scalable.*** The live-streaming format allows us to teach in large classes, make the best use of our teaching resources, and rapidly expand our user base in a cost-effective manner. This model also delivers compelling value propositions to our instructors and teaching assistants by allowing them to reach the widest audience possible.
- ***Interactive.*** Our live classes can be powerful interactive presentation tools to drive interaction and engagement among teachers and students. We want our users to not just focus on course materials, but actively engage with teachers and each other, through real-time group audio or video chat, and picture and video sharing.

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Interactive “Dual-teacher” Model

We mainly adopt a “dual-teacher” model to cultivate an interactive, engaging learning environment, featuring instructors and teaching assistants working closely to deliver a course.

Typically, each course has one instructor, supported by one or more teaching assistants. Instructors and teaching assistants have different roles and responsibilities. Generally, the instructors are responsible for delivering courses and learning content to students, and the teaching assistants are focused on providing academic and administrative support to students during or after class hours. Our “dual-teacher” model features real-time, AI-driven interactions during and after the live courses.

To ensure a seamless learning experience, we require our instructors and teaching assistants to stay in close touch with each other and with their students to understand their learning objectives and concerns. We believe our “dual-teacher” model helps maximize our ability to improve teaching effectiveness and efficiency, and the personal, individual attention provided to our users helps build a sense of community that drives student engagement and enhances learning results.

Smart Devices

We develop and offer smart devices to make learning more productive and efficient for our users. In most cases, our smart devices are developed and designed by us or in collaboration with third parties, while the manufacturing of such devices is outsourced to third-party manufacturers under original equipment manufacturer agreements.

Youdao Dictionary Pen

In July 2018, we launched *Youdao Dictionary Pen*, a sleek, modern electronic translation pen with powerful Chinese/English translation capabilities. Powered by our industry-leading NMT and OCR technologies, users can simply scan the words using *Youdao Dictionary Pen*, and its screen will instantly display the translations and definitions of the words without connecting to the internet. We launched *Youdao Dictionary Pen 2.0* and *Youdao Dictionary Pen 2.0 Pro* with enhanced functionality in August 2019 and June 2020, respectively, which has been widely accepted among students and parents as an effective device. We launched *Youdao Dictionary Pen 3.0* in December 2020, which incorporates certain innovative features, such as “Tap and Check” and “Interactive Reading.” These new features allow faster word lookups and enable young learners to read picture books.

We continued upgrading *Youdao Dictionary Pen* and launched the *People’s Education Version* in September 2021. This product marks our first strategic partnership with People Education Electronic & Audiovisual Press, whose parent company, People’s Education Press, mainly engages in the compilation, publication and distribution of school textbooks and other educational books in the PRC. As of December 31, 2022, *Youdao Dictionary Pen People’s Education Version* included over 4000 recording clips of listening and speaking training textbook content.

We launched *Youdao Dictionary Pen X5* and *Youdao Dictionary Pen P5* in August 2022 and October 2022, respectively, to further expand the vocabulary bank and upgrade other functions of the device.

Youdao Smart Learning Pad

In August 2022, we launched *Youdao Smart Learning Pad Y10*, our first intelligent learning pad product. In October 2022, we further introduced *Youdao Smart Learning Pad X10*, an upgraded version with improved AI-driven precision education, a larger screen and more storage. Backed by our proprietary technology instructure, *Youdao Smart Learning Pad X10* showcases a unique AI-supported “Learning Dashboard,” which can track and present users’ learning performances and provide personalized suggestions focused on their academic weaknesses. Users can start from either uploading photos of their homework assignments and test papers to the plugged-in system, or conducting quizzes or exercises directly on the device. Leveraging our comprehensive quiz bank with over 200,000 sets of mock exams, *Youdao Smart Learning Pad X10* is able to quickly process and generate users’ performance reports encompassing accurate rates, areas of improvements and levels of expertise.

Youdao Listening Pod

Drawn upon our AI-adaptive learning technology, we launched *Youdao Listening Pod* in September 2021, a portable learning device that is designed to deliver an immersive English learning experience to users, and offer them with differentiated, interactive listening and speaking practices. With *Youdao Listening Pod* handy, users can study natural pronunciation by listening and reading over 4500 recording clips of training content, interact and communicate lively with AI-powered chat bots and practice on mock questions to score their English listening and speaking capabilities. In 2022, we launched an upgraded version of *Youdao Listening Pod* with an increased storage capacity and a new AI-powered learning cloud storage function. These new functions automatically generate Chinese and English subtitles for uploaded audio files with follow-along reading and repetition capabilities, making language learning more engaging and efficient.

Youdao Smart Light

In April 2022, we launched *Youdao Smart Light*, an eye-protection desk lamp with interactive, AI-enabled features. Powered by the industry-first desktop-centric learning analysis engine, *Youdao Smart Light* can analyze users' hand or body movements on the desktop to enable a variety of functionalities, such as fingertip word search, sentence intensive reading, and other AI-driven functions. *Youdao Smart Light* is also able to adaptively adjust the brightness and the color temperature of the light to meet the users' various learning scenarios, which is devised to better protect users' vision and health.

Youdao Pocket Translator

In November 2017, we launched *Youdao Pocket Translator*, a pocket-size smart gadget supporting the instant translations of multiple languages to mainly address translation needs while traveling. Leveraging our ASR, OCR and NMT technologies, *Youdao Pocket Translator* helps to translate speech and texts in images in real time. The latest version of *Youdao Pocket Translator* supports translation of 107 languages and offers a variety of new functions, such as word memory and pronunciation correction.

Youdao Super Dictionary

Youdao Super Dictionary is an end-to-end translation tool with polysemy recognition and translation capability. It provides smart, real-time voice translation between any two of the 42 supported languages used in over 200 different countries and regions. *Youdao Super Dictionary* includes professional vocabulary coverage in diversified subjects such as healthcare, IT, finance, legal, sports and energy. It also offers offline translation between English and Chinese.

Education Digitalization Solutions

Education digitalization solutions mainly include technologies and solutions licensed to schools or enterprise customers. Our education digitalization solutions currently include:

Youdao Smart Learning Terminal

In 2020, we launched *Youdao Smart Learning Terminal*, a device that automates paper-based homework processing and provides learning diagnosis through AI technology at schools. In October 2021, we upgraded *Youdao Smart Learning Terminal* to the second generation, which introduced a feature of high-resolution scanning to enable batch scanning and uploading of homework and exam papers. *Youdao Smart Learning Terminal 2.0* also enlarges the image capture area that allows teachers and students to easily capture and recognize the content of the learning materials. As of the date of this annual report, *Youdao Smart Learning Terminal* has been adopted by over 500 schools.

In particular, we helped the government of Binjiang District in Hangzhou to achieve education digitalization, where *Youdao Intelligent Learning Terminal* played an important role in helping instructors to analyze student learning curves and knowledge points, and improve their teaching quality and efficiency. In the fourth quarter of 2021, we entered into a strategic partnership with Suzhou municipal government and Suzhou Education Bureau to empower the educational institutions in Suzhou with our education digitalization solutions. In addition, we formed strategic partnership with Haicang District of Xiamen in 2022. Going forward, we intend to deepen our collaboration with more local governments and public schools with a commitment to further promoting education digitalization in China.

Youdao Smart Cloud

Youdao Smart Cloud is a cloud-based platform that allows third-party app developers, smart device brands and automobile manufacturers to access our advanced OCR capability and NMT engine and incorporate them into their apps, devices, and services through application programming interfaces, or APIs. We also license our OCR and NMT technologies and solutions to customers on a non-cloud basis. In addition, in collaboration with the Higher Education Press, we also provide college and university customers with a cloud-based platform for them to build their online course offerings, as well as a range of ancillary technological support services.

Youdao Sports

In 2022, we introduced *Youdao Sports*, a sports-focused educational system that utilizes our proprietary visual recognition technology to gather, analyze, and evaluate students' on-campus exercise data points. *Youdao Sports* covers a diverse range of sports categories including 50-meter dash, long jump, and skipping rope. The system generates real-time analysis based on students' movements and athletic performance, ultimately enhancing the teaching efficiency and productivity in the field of physical education.

Global Opportunities

We see massive opportunities in expanding in overseas markets. Leveraging our experience in growing and monetizing a large user base in China, we are well positioned to address the burgeoning, unmet demand for language apps in overseas markets.

Currently, our principal product offered overseas is *U-Dictionary*, a free online dictionary and translation app that we launched in March 2016. *U-Dictionary* currently primarily targets users in Southeast Asia (Indonesia, Vietnam, and Thailand), the Middle East (Egypt), America and Latin America (Mexico, Brazil). *U-Dictionary* had amassed over 270.1 million downloads as of December 31, 2022, and its average MAUs in 2022 exceeded 10.0 million.

We plan to continue to expand globally and solidify our positions in overseas markets by refining our existing offerings and launching new products and services to meet local needs.

How We Generate Revenues

Sales of smart devices

We sell smart devices to customers through retailers or distributors. We recognize revenues when control of the goods is transferred to the customer, which generally occurs upon the delivery to the end customers or upon the delivery to distributors.

Tuition fees

We charge tuition fees for our STEAM courses, digital content services, adult and vocational courses, and a portion of the *China University MOOC* courses. Tuitions are generally collected in advance and are initially recorded as deferred revenue. We recognize revenues when control of the promised tutoring services is transferred to our customers. We accept payments of tuition through major third-party online payment solutions in China, bank transfers and credit cards.

The refund policy of our tutoring services is based on a number of factors, including the total length of the course and whether the course has started when the refund request is made, among other things. For example, for some of our tutoring services, we offer an unconditional full refund within 90 days upon payment of the tuition if the course has not started when the refund is requested and a conditional full refund if less than 30 days have elapsed since the start date of the course.

Advertisement

Our platform provides a powerful medium for advertisers to engage our massive user bases. We offer advertising in various formats, including banner ads, video ads, as well as display ads that automatically appear when a user activates our mobile apps.

We primarily offer performance-based advertising solutions, where users click on our advertisers' promotional links displayed on our platforms and the internet properties of contracted third parties and engage directly with the advertisers. We charge our performance-based advertising solutions mainly on a per-click basis. We also generate revenues from brand advertising, which is focused on building the advertisers' brands through logos, presence and other visual components. Most of our brand advertisers pay us fixed advertising fees.

To attract and retain large advertisers, we also offer value-added marketing services, such as advertising effectiveness analysis and campaign management, to enhance the effectiveness of their advertising campaigns. These value-added services are typically offered as a package with the basic advertising services purchased by the advertisers without additional charges.

Subscription fees

While users may access our online knowledge tools, such as *Youdao Dictionary*, free of charge, they can also subscribe for memberships for additional functions, content and privileges. For example, we offer users a paid subscription to *Youdao Dictionary*, with discounts available if users opt to subscribe with automatically renewable terms or a six-month or annual subscription.

Licensing fees

We license our technologies and services, principally through *Youdao Smart Cloud*, to business customers, for which we receive a fixed licensing fee for a specified period or licensing fees on a pay-per-consumption basis.

Sales, Marketing and Branding

Since our inception, we have been focused on delivering a superior learning experience through better products and services. This has allowed us to build a strong Youdao brand that generates significant organic traffic through word of mouth. We believe our reputation and awareness of our brand in China and, increasingly, abroad, provide us with the best and most cost-efficient marketing channel.

We generate user traffic and leads primarily from online channels. As a key sales and marketing strategy, we cross-sell our comprehensive portfolio of products and services, which allows us to effectively scale our business with modest traffic acquisition and marketing spend. For example, the massive and loyal user base of our knowledge tools generates organic traffic to our learning services. In addition, we also employ mobile marketing, such as brand advertisements and marketing campaigns on app stores, leading mobile news apps and social media platforms, as well as through optimization techniques designed to improve our ranking in popular search engines' results.

We also engage in offline marketing and branding to supplement our overall sales and marketing strategies. We sponsored the variety show *Sisters Riding the Wind and Waves Season 2* in January 2021. We also signed Ms. Ying Na, a famous Chinese singer, as the promotion ambassador for our learning services in January 2021. In August 2022, we sponsored the National Children's Weiqi Open Championship in collaboration with the Chinese Weiqi Association and Jiangsu Chess Sport Association, which was highly recognized by the General Administration of Sport of China.

Intellectual Property

We develop and protect our intellectual property portfolio by registering our patents, trademarks, copyrights and domain names. We have also adopted a comprehensive set of internal rules for intellectual property management. These guidelines set the obligations of our employees and create a reporting mechanism in connection with our intellectual property protection.

We own the copyrights to the content we developed in-house. We have entered into standard employee agreements with our faculty members and R&D employees, which provide that the intellectual property created by them in connection with their employment with us is our intellectual property. With our instructors, we typically enter into agreements pursuant to which such instructors grant the intellectual property rights in the live or recorded video of the courses to us.

As of March 31, 2023, we have registered approximately 245 patents with the PRC State Intellectual Property Administration, 352 trademarks with the PRC State Intellectual Property Administration, 251 copy rights with the PRC State Copyright Bureau, and 173 domain names, which include the registrations of our core trademarks ("Youdao" and "有道") and the domain names of our main operating websites.

Data Privacy and Security

We believe data security is critical to our business operation because data is the foundation of our competitive advantages. We have internal rules and policies to govern how we may use and share personal information, as well as protocols, technologies and systems in place to ensure that such information will not be accessed or disclosed improperly. Users must acknowledge the terms and conditions of the user agreement before using our products, under which they consent to our collection, use and disclosure of their data in compliance with applicable laws and regulations.

From an internal policy perspective, we limit access to our servers that store our user and internal data on a "need-to-know" basis. We also adopt a data encryption system intended to ensure the secured storage and transmission of data, and prevent any unauthorized member of the public or third parties from accessing or using our data in any unauthorized manner. Furthermore, we implement comprehensive data masking of user data for the purpose of fending off potential hacking or security attacks.

Content Review

We are committed to complying with the applicable laws and regulations regarding the provision of content through the internet. For the content uploaded by us, we undergo internal reviews and testing before public release and we continue to monitor live-streaming courses. For user-generated content, we require users to agree upon registration that they shall not distribute content in violation of any third-party rights or any applicable laws or regulations.

Our technology also enables us to monitor and remove inappropriate or illegal content from our platform in a timely manner. Text, images and videos are screened by our content monitoring team, aided by systems that periodically filter our platform. We have also adopted various public reporting channels to identify and remove illegal or improper content. Our legal team may also take further actions to hold the content creators accountable for any illegal or inappropriate content.

Due to the massive amount of content displayed on our platform, we may not always be able to promptly identify the content that is illegal, improper or may otherwise be found objectionable by the PRC government. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We cannot assure you that we will not be subject to liability claims or legal or regulatory liability for any inappropriate or illegal content, which could subject us to liabilities and cause damages to our reputation.”

Insurance

We do not maintain any liability insurance or property insurance policies covering our equipment and facilities for injuries, death or losses due to fire, earthquake, flood or any other disaster. Consistent with customary industry practice in China, we do not maintain business interruption insurance, nor do we maintain key man life insurance.

Seasonality

We have experienced, and expect to continue to experience, seasonal fluctuations in our results of operations, due to seasonality in our online marketing services and smart devices. For example, we tend to experience strong sale of our smart devices as a result of the commencement of school term in September and various e-commerce promotions in November and December.

Competition

We operate in the highly competitive intelligent learning industry and are faced with intense competition in every aspect of our business, including competition for users, user enrollments, technology and talent. We face competition for our tutoring service offerings from online and offline providers of courses and educational content. We also face competition for our knowledge tools from providers of online dictionary and translation solutions, for our smart device offerings from manufacturers of hardware or smart devices, and for education digitalization solutions from providers of smart book scanners and others. We also compete for advertisers and their budgets, not only with internet companies, but also with other types of advertising media, such as newspapers, magazines, and television.

We compete for users, user enrollments and customers based on a number of factors, mainly including the followings:

- technology infrastructure and AI capabilities;
- quality of contents and service;
- accumulated user, student and customer bases;
- pricing of current offerings and the development of new offerings; and
- brand recognition and reputation.

We believe that we are well positioned to effectively compete on the basis of the factors listed above. However, our competitors may have longer operating histories, greater brand recognition and larger student and user bases. For discussion of risks relating to market competition, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We face intense competition, which could lead to pricing pressure and loss of market share and materially and adversely affect our business, financial condition and results of operations.”

Licenses and Approvals

The following table sets forth a list of material licenses and approvals, subject to further renewal, that our PRC subsidiaries and the VIEs are required to obtain to carry out their operations in China.

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License	Entity Holding the License	Type of the Entity	Regulatory Authority
ICP License	Youdao Computer	VIE	Beijing Communications Administration
ICP License	Linjiedian Education	VIE	Zhejiang Communications Administration
ICP License	Youdao Guangzhou Computer	VIE	Guangdong Communications Administration
Publication Operation Permit (for retail and wholesale)	Youdao Information	WFOE	Beijing Municipal Bureau of Press and Publication
Publication Operation Permit (for retail)	Youdao Hangzhou	WFOE	Hangzhou Binjiang District Press and Publication Bureau
Publication Operation Permit (for retail)	Youdao Computer	VIE	Beijing Haidian District Culture Commission
Publication Operation Permit (for wholesale)	Youdao Computer	VIE	Beijing Municipal Bureau of Press and Publication
Publication Operation Permit (for retail and wholesale)	Linjiedian Education	VIE	Zhejiang Municipal Bureau of Press and Publication
Publication Operation Permit (for wholesale)	Youdao Guangzhou Computer	VIE	Guangzhou Municipal Bureau of Press and Publication
Publication Operation Permit (for retail and wholesale)	Youdao Smart Technology	WFOE	Zhejiang Municipal Bureau of Press and Publication
Permit for Production and Operation of Radio and TV Program	Youdao Computer	VIE	Beijing Municipal Radio and Television Bureau
Permit for Production and Operation of Radio and TV Program	Linjiedian Education	VIE	Zhengjiang Municipal Radio and Television Bureau
Publication Operation Permit (for retail)	Linjiedian Education	VIE	Zhengjiang Municipal Bureau of Press and Publication

Regulation

Regulation Related to Value-Added Telecommunications Services

On September 25, 2000, the State Council issued the PRC Regulations on Telecommunications, or the Telecommunications Regulations, as last amended on February 6, 2016, to regulate telecommunications activities in China. The Telecommunications Regulations divided the telecommunications services into two categories, namely “infrastructure telecommunications services” and “value-added telecommunications services.” Pursuant to the Telecommunications Regulations, operators of value-added telecommunications services, or VATS, must first obtain a Value-Added Telecommunications Business Operating License, or VATS License, from the MIIT, or its provincial-level counterparts. On July 3, 2017, the MIIT promulgated the Administrative Measures on Telecommunications Business Operating Licenses, which set forth more specific provisions regarding the types of licenses required to operate VATS, the qualifications and procedures for obtaining such licenses and the administration and supervision of such licenses.

The Classified Catalog of Telecommunications Services (2015 Version), or the 2015 MIIT Catalog, defines information services as “the information services provided for users through public communications networks or the internet by means of information gathering, development, processing and the construction of the information platform.” Moreover, information services continue to be classified as a category of VATS and are clarified to include information release and delivery services, information search and query services, information community platform services, information real-time interactive services, and information protection and processing services under the 2015 MIIT Catalog.

The Administrative Measures on Internet Information Services, or ICP Measures, set forth more specific rules on the provision of internet

information services. According to ICP Measures, any company that engages in the provision of commercial internet information services shall obtain a subcategory VATS License for Internet Information Services, or ICP License, from the relevant government authorities before providing any commercial internet information services within the PRC. Pursuant to the above-mentioned regulations, "commercial internet information services" generally refer to the provision of specific information content, online advertising, web page construction and other online application services through internet for profit-making purposes. According to the ICP Measures, internet information service providers shall not produce, duplicate, publish or disseminate the following information which: (i) is against the fundamental principles set out in the PRC Constitution; (ii) endangers national security, divulges state secrets, subverts state power, or undermines national unity; (iii) damages the state's honor or interests; (iv) incites ethnic hatred and ethnic discrimination or undermines inter-ethnic unity; (v) undermines the PRC's religious policy, or advocates religious cults or feudal superstition; (vi) disseminates rumors to disrupt social order and undermine social stability; (vii) disseminates obscenity or pornography, advocates gambling, violence, murder and terrorism, or instigates others to commit crimes; (viii) humiliates or defames other persons or infringes the legitimate rights and interests of the others; or (ix) is otherwise prohibited by laws and administrative regulations.

In addition to the Telecommunications Regulations and the other regulations discussed above, the provision of commercial internet information services on mobile internet applications is regulated by the Administrative Provisions on Mobile Internet Applications Information Services, which was promulgated by the CAC and last amended on June 14, 2022 which came into effect on August 1, 2022. The providers of mobile internet applications are subject to requirements under these provisions, including acquiring the qualifications and complying with other requirements provided by laws and regulations and being responsible for information security.

The 2015 MIIT Catalog defines internet data center services as “the placement, agency maintenance, system configuration and management services provided for users’ servers or other internet/network-related equipment in a form of outsource lease by utilizing the corresponding machine room facilities, as well as the lease of database systems, servers and other equipment, lease of the storage spaces of such equipment, lease of communication lines and export bandwidth on an agency basis, and other application services.” Internet data center services also include internet resource collaboration services, which refer to the data storage, internet application development environment, internet application deployment, operation and management services provided for users through the internet or other network-related means featuring availability at any time, use as needed, expansion at any time and collaborative sharing, and by virtue of the equipment and resources established on the data center. And pursuant to the Telecommunications Regulations and the Administrative Measures on Telecommunications Business Operating Licenses, operators providing internet data center services shall also obtain a Value-Added Telecommunications Business Operating License.

We provide information and services to our users through our websites and mobile apps, which are classified as commercial internet information services as defined in the above provisions. To comply with the relevant laws and regulations, Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer, the VIEs in the PRC, have obtained an ICP License, respectively. The ICP License of Youdao Computer will remain effective until July 25, 2023, the ICP License of Linjiedian Education will remain effective until August 26, 2026, and the ICP License of Youdao Guangzhou Computer will remain effective until August 10, 2027.

Regulation Related to Foreign Investment

On March 15, 2019, the National People’s Congress promulgated the Foreign Investment Law, which came into effect on January 1, 2020 and replaced the trio of existing laws regulating foreign investment in China, namely, the Sino-Foreign Equity Joint Venture Enterprise Law, the Sino-Foreign Cooperative Joint Venture Enterprise Law and the Wholly Foreign-Invested Enterprise Law, together with their implementation rules and ancillary regulations. The existing foreign-invested enterprises established prior to the effective date of the Foreign Investment Law may keep their corporate forms, among other things, within five years after January 1, 2020. Pursuant to the Foreign Investment Law, “foreign investors” means natural person, enterprise, or other organization of a foreign country, “foreign-invested enterprises” (FIEs) means any enterprise established under PRC law that is wholly or partially invested by foreign investors, and “foreign investment” means any foreign investor’s direct or indirect investment in mainland China, including: (i) establishing FIEs in mainland China either individually or jointly with other investors; (ii) obtaining stock shares, stock equity, property shares, other similar interests in Chinese domestic enterprises; (iii) investing in new projects in mainland China either individually or jointly with other investors; and (iv) making investment through other means provided by laws, administrative regulations, or State Council provisions.

The Foreign Investment Law stipulates that China implements the management system of pre-establishment national treatment plus a negative list to foreign investment and the government generally will not expropriate foreign investment, except under special circumstances, in which case it will provide fair and reasonable compensation to foreign investors. Foreign investors are barred from investing in prohibited industries on the Negative List and must comply with the specified requirements when investing in restricted industries on that list. When a license is required to enter a certain industry, the foreign investor must apply for one, and the government must treat the application the same as one by a domestic enterprise, except where laws or regulations provide otherwise. In addition, foreign investors or FIEs are required to file information reports and foreign investment shall be subject to the national security review. The Implementation Rules of the Foreign Investment Law, which came into effect on January 1, 2020, provides that the Foreign Investment Law and its implementation rules also apply to investment by FIEs in China.

On December 26, 2019, the Supreme People’s Court of the PRC promulgated the Interpretation of the Supreme People’s Court on Several Issues Concerning the Application of the Foreign Investment Law of the PRC, effective as of January 1, 2020, pursuant to which “investment contracts” shall mean the relevant agreements formed as a result of direct or indirect investments in the PRC by foreign investors, i.e., foreign natural persons, foreign enterprises or other foreign organizations, including contracts for establishment of foreign investment enterprises, share transfer contracts, equity transfer contracts, contracts for transfer of property or other similar interests, contracts for newly

built projects, etc. Where a party concerned claims that an investment contract is invalid for investing in prohibited industries as stipulated in the Negative List for foreign investment access or due to violation of specified administrative measures in restricted industries, the People's Court shall support such claim.

On December 19, 2020, the NDRC and the MOFCOM jointly promulgated the Measures on the Security Review of Foreign Investment, effective on January 18, 2021, which sets forth provisions concerning the security review mechanism on foreign investment, including the types of investments subject to review, review scopes and procedures, among others. The Office of the Working Mechanism of the Security Review of Foreign Investment (the “Office of the Working Mechanism”) will be established under the NDRC, who will carry out routine work of security review on foreign investment. Foreign investor or relevant parties in China must declare the security review to the Office of the Working Mechanism prior to (i) the investments in the military industry, military industrial supporting industry and other fields relating to the security of national defense, and investments in areas surrounding military facilities and military industry facilities; and (ii) investments in important agricultural products, important energy and resources, important equipment manufacturing, important infrastructure, important transport services, important cultural products and services, important information technology and internet products and services, important financial services, key technologies and other important fields relating to national security, and obtain control in the target enterprise. Control exists when the foreign investor (i) holds over 50% equity interests in the target, (ii) has voting rights that can materially impact on the resolutions of the board of directors or shareholders meeting of the target even when it holds less than 50% equity interests in the target, or (iii) has material impact on the target’s business decisions, human resources, accounting and technology, etc.

For detailed discussion of the risk associated with the Foreign Investment Law, see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure—Uncertainties exist with respect to the interpretation and implementation of the enacted Foreign Investment Law and how it may impact our and the VIEs’ business, financial condition and results of operations.”

Regulation Related to Foreign Investment Restrictions

According to the latest Negative List promulgated by MOFCOM and NDRC, which took effect on January 1, 2022, with respect to the provision of value-added telecommunications services, the percentage of foreign ownership cannot exceed 50% (except for e-commerce, domestic multi-party communication, store-and-forward and call center). The latest negative list further provides that domestic companies engaged in foreign investment prohibited business and intend to offer and list securities in overseas markets shall obtain approval from relevant government authorities.

On April 7, 2022, the State Council published the amendment to the Regulations on Administration of Foreign-Invested Telecommunications Enterprises, or the Amended FITE Regulations, which became effective on May 1, 2022. The Amended FITE Regulations, which are the key regulations for foreign direct investment in telecommunications companies in China, stipulate that the foreign investor of a telecommunications enterprise is prohibited from holding more than 50% of the equity interest in an FIE that provides value-added telecommunications services, unless otherwise provided by the relevant laws and regulations.

Moreover, foreign investors that intend to invest in or establish a value-added telecommunications enterprise operating the value-added telecommunications business must obtain approvals from MIIT, which retain considerable discretion in granting approvals.

On July 13, 2006, the MIIT issued the Circular on Strengthening the Administration of Foreign Investment in Value-Added Telecommunications Services, or the MIIT Circular 2006, which requires that (i) foreign investors can only operate a telecommunications business in China through establishing a telecommunications enterprise with a valid telecommunications business operation license; (ii) domestic license holders are prohibited from leasing, transferring or selling telecommunications business operation licenses to foreign investors in any form, or providing any resource, sites or facilities to foreign investors to facilitate the unlicensed operation of telecommunications business in China; (iii) value-added telecommunications services providers or their shareholders must directly own the domain names and registered trademarks they use in their daily operations; (iv) each value-added telecommunications services provider must have the necessary facilities for its approved business operations and maintain such facilities in the geographic regions covered by its license; and (v) all value-added telecommunications services providers should improve network and information security, enact relevant information safety administration regulations and set up emergency plans to ensure network and information safety. The provincial communications administration bureaus, as local authorities in charge of regulating telecommunications services, may revoke the value-added telecommunications business operation licenses of those who fail to comply with the above requirements or fail to rectify such non-compliance within specified time limits.

To comply with the above foreign investment restrictions, we operate our value-added telecommunications services in China through the VIEs and their subsidiaries. However, there remain substantial uncertainties with respect to the interpretation and application of existing or future PRC laws and regulations on foreign investment. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate

Structure—There are substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations, and rules relating to the agreements that establish the VIE structure for our and the VIEs' operations in China, including potential future actions by the PRC government, which could affect the enforceability of our contractual arrangements with the VIEs and, consequently, significantly affect our financial condition and results of operations. If the PRC government finds our contractual arrangements non-compliant with relevant PRC laws, regulations, and rules, or if these laws, regulations, and rules or the interpretation thereof change in the future, we could be subject to severe penalties or be forced to relinquish our interests in the VIEs.”

Regulation Related to Private Education

Education Law of the PRC

The PRC Education Law, or the Education Law, sets forth provisions relating to the fundamental education systems of the PRC, including a school system of pre-school education, primary education, secondary education and higher education, a system of nine-year compulsory education and a system of education certificates. The Education Law stipulates that the government formulates plans for the development of education, establishes and operates schools and other types of educational institutions, and in principle, enterprises, institutions, social organizations and individuals are encouraged to operate schools and other types of educational organizations in accordance with PRC laws and regulations.

The Law for Promoting Private Education and Its Implementing Rules

On December 28, 2002, the Standing Committee of the National People's Congress, or the SCNPC, promulgated the Law for Promoting Private Education, or the Private Education Law, which was last amended on December 29, 2018. Under the amended Private Education Law, sponsors of private schools may choose to establish non-profit or for-profit private schools at their own discretion, and the establishment of the private schools shall be subject to approvals granted by relevant government authorities and registered with relevant registration authorities.

On April 7, 2021, the State Council published the amendment to the Regulations on the Implementation of the Law for Promoting Private Education of the PRC, or Amended Implementation Rules which became effective on September 1, 2021. The Amended Implementation Rules stipulates that online education activities using internet technology are encouraged by the regulatory authorities and shall comply with laws and regulations related to internet management. Private schools using internet technology shall obtain the private school operating permit, as well as the internet operating permit. It shall also establish and implement internet security management systems and take technical security measures. Upon discovery of any information whose release or transmission is prohibited by applicable laws or regulations, the private school shall immediately cease the transmission of that information and take further remedial actions, such as deleting that information, to prevent it from spreading. Records pertaining to the situation shall be kept and reported to the appropriate authorities.

The Amended Implementation Rules further stipulates that relevant government authorities shall enhance the supervision on the agreements entered into between non-profit private schools and its related party and shall review such transaction on an annual basis.

Uncertainties exist with respect to the interpretation and application of the existing and future laws and regulations governing the online private education industry, and how the local government will promulgate implementing rules relating to the specific requirements applicable to online education service providers like us. See "Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—Our compliance with the Opinions on Further Alleviating the Burden of Homework and After-School Tutoring for Students in Compulsory Education and the implementation measures issued thereunder by the relevant PRC government authorities has materially and adversely affected and will materially and adversely affect our and the VIEs' business, financial condition, results of operations and prospect."

Regulation Related to After-School Tutoring and Educational Apps

On February 13, 2018, the Ministry of Education, or the MOE, the Ministry of Civil Affairs, the Ministry of Human Resources and Social Security and the State Administration for Industry and Commerce, or the SAIC (currently known as the State Administration for Market Regulation, or the SAMR), jointly promulgated the Circular on Alleviating After-School Burden on Elementary and Secondary School Students and Implementing Inspections on After-School Training Institutions, or Circular 3. Pursuant to Circular 3, the aforesaid government authorities will carry out a series of inspections on after-school training institutions and order those with material potential safety risks to suspend business for self-inspection and rectification and those without proper establishment licenses or school operating permits to apply for relevant qualifications and certificates under the guidance of competent government authorities. Moreover, after-school training institutions must file with the local education authorities and make public the classes, courses, target students, class hours and other information relating to their academic training courses (including primarily courses on Chinese and mathematics). After-school training institutions are prohibited from providing academic training services beyond the scope or above the level of school textbooks, or organizing any academic competitions (such as Olympiad competitions) or level tests for students of elementary or middle schools. In addition, elementary or middle schools may not reference a student's performance in the after-school training institutions as one of admission criteria.

On August 6, 2018, the State Council issued the Opinion on the Regulation of the Development of After-School Training Institutions, or State Council Circular 80, which primarily regulates after-school training institutions targeting K-12 students. State Council Circular 80 reiterates prior guidance that after-school training institutions must obtain a private school operating permit, and further requires such institutions to meet certain minimum requirements; for example, after-school training institutions are required to (i) have a fixed training premise that conforms to specific safety criteria, with an average area per student of no less than three square meters during the applicable training period; (ii) comply with relevant fire safety, environmental protection, hygiene, food operation and other specified requirements; (iii) purchase personal safety insurance for students to reduce safety risks; and (iv) not hire any teachers who are working concurrently in primary or secondary schools, and teachers for tutoring in academic subjects such as Chinese, mathematics, English, physics, chemistry and biology are required to have the corresponding teacher qualification licenses. In addition, after-school training institutions are prohibited from carrying out exam-oriented training, training that goes beyond the school syllabus, training in advance of the corresponding school schedule and any training activities associated with student admission, nor shall they organize any level test, rank examination or competition on academic subjects for primary and secondary students. The training content of after-school training institutions shall not exceed the corresponding national curricular standards and training progress shall not be more accelerated than the corresponding progress of local schools. According to State Council Circular 80, after-school training institutions are also required to disclose and file relevant information regarding the institution, including their training content, schedule, targeted students and school timetable to the relevant education authority, and their training classes may not end later than 8:30 p.m. each day or otherwise conflict with the teaching time of local primary and secondary schools. Course fees can only be collected for courses in three months or shorter installments. Additionally, State Council Circular 80 requests that competent local authorities formulate relevant local standards for after-school training institutions within their administrative area. If an overseas-listed after-school training institution publicizes overseas any periodical report or any interim report on material adverse effect on its operation, it shall concurrently publish the information in Chinese on its official website (or on the disclosure platform for securities exchange information in the absence of an official website). In relation to online education service providers, State Council Circular 80 generally provides that regulatory authorities of networking, culture, information technology, radio and television industries shall cooperate with the education department in supervising online education within their relevant industry. On May 6, 2020, the General Office of the MOE promulgated the Notice on the Negative List of Advanced Trainings for Six Compulsory Education Subjects (for Trial Implementation), which, in accordance with the State Council Circular 80, prohibits after-school training institutions from providing advanced trainings that do not follow the formal school curricula to the students in primary school and secondary school, and provides typical activities that shall be regarded as advanced training in the subjects of Chinese, mathematics, English, physics, chemistry and biology.

On August 30, 2018, the MOE, SAMR and certain other government authorities issued the Comprehensive Implementation Plan for Myopia Control in Children and Teenagers, which requires, among others, that the schools (i) shall use electronic products based on the principal of necessity, shall not rely on electronic products for teaching and homework assignment and shall rather assign paper-based homework in principle, and the teaching time using electronic products shall not account for more than 30% in general; (ii) shall strictly implement the learning and development guidelines for children aged three to six, pay attention to the importance of life and play and avoid “primary school” teaching.

On November 20, 2018, the General Office of the MOE, the General Office of the SAMR of the PRC and the General Office of the Ministry of Emergency Management of the PRC jointly issued the Notice on Improving the Specific Governance and Rectification Mechanisms of After-School Education Institutions, or Circular 10, which provides that provincial education departments shall be responsible for the filing of training institutions that use the internet technology to provide online training facing primary and middle school students. Provincial education departments shall regulate the online after-school training institutions based on the management policies governing offline after-school training institutions. In addition, online after-school education institutions shall file the information of their courses, such as names, contents, target students, syllabi and schedules with the provincial education departments and shall publish the name, photo, class schedule and certificate number of the teacher qualification license of each teacher on their websites.

On December 25, 2018, the General Office of the MOE issued the Notice on Strictly Forbidding Harmful APP Entering Primary and Secondary Schools, which stipulates, among other things, that (i) local primary schools, secondary schools and education departments shall conduct comprehensive investigations to apps on campus, and shall call off using any app containing harmful contents, such as commercial advertisements and internet games, or that increase the burden on students, and (ii) the filing and reviewing system of learning apps shall be established.

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The Central Committee of the Communist Party and the State Council jointly issued the Opinions on the Further Reform of Education and Teaching and Comprehensive Improvement on the Compulsory Education Quality, or the Opinions, which became effective on June 23, 2019. The Opinions stipulate, among other things, that (i) the State Administration for Market Regulation and its local counterparts shall be responsible for the registrations and filings of all the after-school training institutions and shall supervise and govern their operational behaviors, such as advertising, fee collecting, antitrust competitions, etc., and (ii) the integrated application of information technology and education shall be promoted, the “education plus internet” operation model shall be encouraged but in the meanwhile, the approval and supervision system for digital educational resource applied by schools shall be established.

The MOE, jointly with certain other PRC government authorities, issued the Opinions on Guiding and Regulating the Orderly and Healthy Development of Educational Mobile Apps on August 10, 2019, or the Opinions on Educational Apps, which requires, among others, mobile apps that provide services for school teaching and management, student learning and student life, or home-school interactions, with school faculty, students or parents as the main users, and with education or learning as the main application scenarios (the “Educational Apps”), be filed with competent provincial regulatory authorities for education. The Opinions on Educational Apps also requires, among others, that: (i) before filing, the Educational App’s provider obtain the ICP License or complete the ICP filing and obtain the certificate and the grade evaluation report for graded protection of cybersecurity; (ii) Educational Apps whose main users are under the age of 18 limit the use time, specify the range of suitable ages, and strictly monitor their content; (iii) before an Educational App is introduced as a mandatory app to students, such Educational App be approved by the applicable school through its collective decision-making process and be filed with the competent education authority; and (iv) Educational Apps adopted by education authorities and schools as their uniformly used teaching or management tools not charge the students or parents any fee, and not offer any commercial advertisements or games. On November 11, 2019, the MOE issued the Administrative Measures on Filing of Educational Mobile Apps. In 2020, the MOE established a public channel that can be used to submit complaints with respect to educational apps and set a penalty points system based on the severity of the complaints. For serious complaints substantiated by relevant government authorities, an appropriate number of penalty points is recorded for the relevant educational app provider, and remedial measures also may be required. In the event that an educational app provider receives 12 or more penalty points within 12 months or certain types of serious complaints, the MOE may revoke such provider’s filing, blacklist such provider, remove its educational app from the app store, publicize the complaint or prohibit such provider from submitting any filings for six months. Complaints can be made against both educational app providers and users regarding a variety of matters including failure to file or obtain relevant permits; illegal or inappropriate information; inappropriate collection and use of personal information; and violation of relevant requirements for primary and secondary schools and online after-school training programs.

On September 19, 2019, the MOE, jointly with certain other PRC government authorities, issued the Guidance Opinions on Promoting the Healthy Development of Online Education, which provides, among others, that (i) social forces are encouraged to establish online education institutions, develop online education resources, and provide high-quality education services; and (ii) an online education negative list shall be promulgated and industries not included in the negative list are open for all types of entities to enter into.

On June 10, 2020, the General Office of MOE and the General Office of SAMR promulgated the Notice on Issuing the Form Service Contract for After-School Training provided to Primary and Secondary School Students and amended on September 27, 2021, which requires the local competent regulatory bodies to guide the relevant parties to use the form service contract in after-school training activities provided to primary and secondary school students. The form service contract is provided to the students’ guardians and after-school training institutions for reference when they sign the training contract. The content of the form service contract reflects the responsibilities, rights and interests of both parties involved in the after-school training, especially the detailed provisions on training fees, training refund and liability for breach of contract.

On August 17, 2020, the MOE and certain other PRC government authorities jointly promulgated the Opinion on Further Strengthening and Regulating the Management of Educational Fees, or the Education Fees Opinions, pursuant to which all fees collected by private schools shall be paid into the school’s bank account filed with the education authority, be unified managed, and mainly used for educational and teaching activities, improving the operational conditions, protection of teachers’ and staffs’ treatment and allocating development fund according to relevant laws and regulations. The fee level of for-profit private schools is open for market adjustment and can be determined by for-profit private schools at their own discretion, while the fee-collecting regulatory policies for non-profit private schools shall be formulated by the provincial governments. The Education Fees Opinions further clarify that private schools established prior to November 7, 2016 shall be regulated in the same way as non-profit private schools in terms of fee-collecting policies until the completion of the classification registration procedures. Besides, the Education Fees Opinions propose to explore a special audit system for school education fees, in particular for non-profit private schools. The Education Fees Opinions underline that sponsors of non-profit private schools shall not obtain proceeds from

schools' operating profits, distribute the operating surplus or residual assets, or transfer operating profits through related-party transactions or related parties.

On October 13, 2020, the General Office of the MOE and the General Office of the State Administration for Market Regulation of PRC jointly promulgated the Notice on the Centralized Rectification of After-School Tutoring Institutions' Illegal Acts of Infringing Consumers' Rights by Using Unfair Standard Terms. The notice stipulates that local education and market regulation authorities shall increase the efforts for the investigation of after-school tutoring institutions' illegal acts which infringe consumers' rights by using unfair standard terms to exempt them from their own responsibility, increase consumers' liability and exclude consumers' legal rights.

The Law for Protection of Minors issued by the Standing Committee of the National People's Congress on December 29, 2006, was amended on October 17, 2020 and took effect on June 1, 2021. According to the amended Law for Protection of Minors, kindergartens and after-school training agencies may not carry out primary school curriculum education for preschool-age minors, and online education products and services which are targeted at minors shall not include any links to online games or push any advertisements and other information irrelevant to teaching.

The General Office of the MOE enacted the Notice of Strengthening the Management of Homework for Compulsory Education on April 8, 2021, which requires that local governments shall take prohibition of leaving homework as an important part of the daily supervision on after-school training institutions in accordance with relevant regulations, and in order to avoid reducing the burden in schools but increasing the burden after-school, after-school training institutions shall not leave homework to primary and secondary school students.

On July 24, 2021, the General Office of State Council and the General Office of Central Committee of the Communist Party of China jointly promulgated the Alleviating Burden Opinion, which provides that, among other things, (i) local government authorities shall no longer approve new after-school tutoring institutions providing tutoring services on academic subjects for students in compulsory education, and the existing after-school tutoring institutions providing tutoring services on academic subjects shall be registered as non-profit; (ii) online after-school tutoring institutions that have filed with the local education administration authorities providing tutoring services on academic subjects shall be subject to review and re-approval procedures by competent government authorities, and any failure to obtain such approval will result in the cancellation of its previous filing and ICP license; (iii) Academic AST Institutions are prohibited from raising funds by listing on stock markets or conducting any capitalization activities and listed companies are prohibited from investing in Academic AST Institutions through capital markets fund raising activities, or acquiring assets of Academic AST Institutions by paying cash or issuing securities; and (iv) foreign capital is prohibited from controlling or participating in any Academic AST Institutions through mergers and acquisitions, entrusted operation, joining franchise or variable interest entities. Any violation of the foregoing shall be rectified.

Moreover, the Alleviating Burden Opinion specifies a series of operating requirements that after-school tutoring institutions must meet, including, among other things, (i) after-school tutoring institutions shall not provide tutoring services on academic subjects during national holidays, weekends and school breaks; (ii) for online tutoring, each session shall be no more than thirty minutes and the training shall end no later than 9:00 p.m.; (iii) no advertisements in connection with after-school tutoring services shall be published or broadcasted on the network platforms and billboards displayed on the mainstream media, new media, public space and residential areas; (iv) the provision of overseas education courses is strictly prohibited; (v) fees charged for academic subjects tutoring in compulsory education shall be included into government-guided price management, and excessive high fees and excessive profit-seeking behaviors will be suppressed; (vi) government authorities will implement risk management and control for the pre-collection of fees by after-school tutoring institutions with requirements such as setting up third-party custodians and risk reserves, and strengthen supervision over loans regarding tutoring services; (vii) online tutoring for preschool-age children is prohibited, and offline academic subjects (including foreign language) tutoring services for preschool-age children is also strictly prohibited; (viii) no more approval of new after-school tutoring institutions providing tutoring services on academic subjects for pre-school-age children and students in grades 10 to 12 will be granted; and (ix) administration and supervision over academic subjects tutoring institutions for students in grades 10 to 12 shall be implemented by reference to the relevant provisions of the Alleviating Burden Opinion. On February 8, 2022, the MOE issued the 2022 Work Points of MOE, which specifies that administration and supervision over academic subjects tutoring institutions for students in grades 10 to 12 shall be strictly implemented by reference to the relevant provisions to the Alleviating Burden Opinion.

On July 28, 2021, the General Office of MOE promulgated the Notice on Further Clarifying the Scope of Academic Subjects and Non-Academic Subjects of After-School Tutoring in the Compulsory Education, which specifies that according to the national curriculum on compulsory education, when after-school institutions carry out tutoring, morality and rule of law, Chinese, history, geography, mathematics, foreign language (including English, Japanese, Russian), physics, chemistry and biology are classified as academic subjects, while sports (or sports and health), art (or music, art), and comprehensive practical activities (including information technology education, labor and technology education) are classified as non-academic subjects.

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On August 25, 2021, the General Office of MOE issued the Administrative Measures for After-School Tutoring Materials for Primary and Secondary School Students (for Trial Implementation), which provide that, among others, (i) after-school tutoring materials for primary and secondary school students and staff preparing such tutoring materials shall meet certain requirements specified in such measures, which include, among others, tutoring materials shall follow the national curriculum standard and shall not provide contents in advance of the school curriculum; (ii) after-school tutoring institutions shall establish internal management system for the tutoring materials and the staff preparing such tutoring materials; (iii) after-school tutoring institutions shall conduct internal review of the tutoring materials and the local education administrations shall conduct external review of the tutoring materials; (iv) after-school tutoring institutions may only use tutoring materials that have been internally and externally reviewed or if the materials have been officially published; (v) after school tutoring institutions shall file with the relevant education administrations the tutoring materials and the staff preparing such materials; (vi) after-school tutoring institutions in violation of the measures will be subject to rectification and shall not use the relevant tutoring materials during the rectification period; if the after-school tutoring institution refuses to rectify within the time limit or if the violation is severe, its private school operating permit may be revoked by the local education administration.

On September 7, 2021, the MOE published on its official website that the MOE, together with two other government authorities, issued a circular requiring all Academic AST Institutions to complete registration as non-profit by the end of 2021, and all Academic AST Institutions shall, before completing such registration, suspend enrollment of students and charging fees.

On September 18, 2021 the MOE further published on its official website that the General Office of MOE, together with five other government authorities, issued a circular requiring all online after-school tutoring institutions that have filed with the local education administration authorities providing tutoring services on academic subjects to obtain the private school operating permit by the end of 2021, and all online after-school tutoring institutions shall, before obtain such permit, suspend enrollment of students and charging fees.

On September 9, 2021, the General Office of MOE and the General Office of the Ministry of Human Resources and Social Welfare jointly issued the Administrative Measures for Practitioners of the After-School Tutoring Institutions (for Trial Implementation), which set out a series of requirements for the after-school tutoring institutions with respect to their employed teachers, research staff and teaching assistants. After-school tutoring institutions in violation of such requirements will be subject to rectification. If an after-school tutoring institution violates the requirements several times or violates several requirements, such after-school tutoring institution is prohibited from enrollment of students and shall not conduct tutoring activities during the rectification period; and if the after-school tutoring institution refuses to rectify within the time limit or if the violation is severe, its private school operating permit may be revoked by the local education administration.

On October 21, 2021, the MOE jointly with certain other PRC government authorities, promulgated the Notice on Strengthening the Supervision of After-School Tutoring Institutions Pre-collection of Fees, which requires the pre-collection of fees by Academic AST Institution and non-Academic AST Institution shall be supervised. Local government will adopt bank custodians or risk reserves to control such risk with the consideration of local situation.

On March 3, 2022, the MOE jointly with SAMR and NDRC promulgated the Notice on Regulating Non-Academic After-school Training Institutions, which provide that, among others, (i) non-academic after school tutoring institutions shall have the corresponding qualifications and their staffs shall have the corresponding proofs for their profession; (ii) non-academic after school tutoring institutions shall ensure that training contents and training methods are suitable for the age, mental and physical characteristics and cognitive level of students; (iii) the training contents, training hours, charging items, charging standards and other information of non-academic after school tutoring institutions shall be made public and subject to public supervision; (iv) non-academic after school tutoring institutions shall use the form of service contract for after-school training activities provided to primary and secondary school students, strictly performing contractual obligations and regulating its charging behaviors; (v) non-academic after school tutoring institutions' unfair competition by fictitious original prices, false discounts, false publicity, monopolistic behaviors and any form of price fraud are prohibited; (vi) the pre-collection of fees by non-academic after school tutoring institutions shall be deposited to the special account for fee collection and tuition fees shall not be collected in a lump sum, or in disguised form of recharging or measured cards for more than 60 classes or for a course length of more than three months; and (vii) non-academic after school tutoring institutions shall comply with requirements relating to premise, facilities and fire safety.

On December 8, 2022, the MOE together with twelve other government authorities issued the Opinions on Standardizing Non-Academic After-School Tutoring for Primary and Secondary School Students, which reiterates that local authorities shall identify corresponding competent authorities for different tutoring categories and shall set forth basic standards for establishment and approval procedures for online and offline tutoring institutions of the corresponding categories based on local conditions. In addition, the Opinions provide that local

authorities shall standardize daily operations and strengthen daily supervision of non-academic after-school tutoring, including: (i) in terms of training content and training time, non-academic tutoring institutions shall not provide academic tutoring courses, and the training time shall not conflict with the teaching time of local primary and secondary schools; the offline training shall end no later than 20:30, and the online training shall end no later than 21:00; (ii) in terms of price, non-academic tutoring institutions shall follow the principles of fairness, legality and good faith, set prices according to training costs, market supply and demand, etc.; and such prices shall be reported to the competent authorities and be made to the public; (iii) in terms of pre-collection of fees, all fees collected by the tutoring institution shall be put into the special account; training fees shall not be paid by training loans; pre-collected fees shall be included into supervision and shall not be collected for more than 60 classes, for a course length of more than three months, or over RMB5,000 in one time or in the form of recharge, card and other disguised charges; and (iv) all non-academic tutoring institutions shall be included in the unified management through the National Platform for Supervision and Service of After-School Education and Training.

Our current practice may be deemed to be not in full compliance with the above laws and regulations and we cannot assure you that we will comply with the above laws and regulations in a timely manner or at all. For detailed discussion, please see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—Our compliance with the Opinions on Further Alleviating the Burden of Homework and After-School Tutoring for Students in Compulsory Education and the implementation measures issued thereunder by the relevant PRC government authorities has materially and adversely affected and will materially and adversely affect our and the VIEs’ business, financial condition, results of operations and prospect.”

Regulation Related to Online Transmission of Audio-Visual Programs

To regulate the provision of audio-visual program services to the public via the internet, including through mobile networks, within the territory of the PRC, the State Administration of Press Publication Radio Film and Television, or the SAPPRFT (currently known as National Radio and Television Administration), and the MIIT jointly promulgated the Administrative Provisions on Internet Audio-Visual Program Service, or the Audio-Visual Program Provisions. Under the Audio-Visual Program Provisions, “online audio-visual program services” is defined as activities of producing, redacting and integrating audio-visual programs, providing them to the general public via internet, and providing service for other people to upload and transmit audio-visual programs, and providers of online audio-visual program services are required to obtain a License for Online Transmission of Audio-Visual Programs issued by the SAPPRFT, or complete certain registration procedures with the SAPPRFT. In general, providers of online audio-visual program services must be either state-owned or state-controlled entities, and the business to be carried out by such providers must satisfy the overall planning and guidance catalog for internet audio-visual program service determined by the SAPPRFT.

According to the Provisional Implementation of the Tentative Categories of Internet Audio-Visual Program Services promulgated by the SAPPRFT, or the Categories, which clarifies the scope of internet audio-visual programs services, the making and editing of certain specialized audio-visual programs concerning, among other things, educational content, and broadcasting such content to the general public online is covered in the Categories.

We currently do not hold a License for Online Transmission of Audio-Visual Programs. Uncertainties exist as to whether we will be required by relevant PRC government authorities to obtain the License for Online Transmission of Audio-Visual Programs. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We may face risks and uncertainties with respect to the licensing requirement for internet audio-visual programs.”

Regulation Related to Internet Live-Streaming Services

On November 4, 2016, the CAC issued Administrative Regulation on Internet Live-Streaming Services, effective from December 1, 2016, according to which, “internet live-streaming” refers to the activities of continuously releasing real-time information to the public based on the internet in forms such as videos, audios, images and texts, and “internet live-streaming service providers” refers to the operators that provide internet live-streaming platform service. In addition, the internet live-streaming service providers shall take various measures during operation of its services, such as examining and verifying the authenticity of the identification information and filing such information for records.

On July 12, 2017, the CAC issued a Notice on Development of the Filing Work for Enterprises Providing Internet Live-Streaming Services, which provides that all the companies providing internet live-streaming services shall file with the local authority effective July 15, 2017, otherwise the CAC or its local counterparts may impose administrative sanctions on such companies.

Pursuant to the Circular on Tightening the Administration of Internet Live-Streaming Services jointly issued by the MIIT, the Ministry of Culture and Tourism, or the MOCT, and several other government agencies on August 1, 2018, live-streaming services providers are required to file with the local public security authority within 30 days after it commences the service online.

Regulation Related to Production and Distribution of Radio and Television Programs

The Administrative Measures on the Production and Operation of Radio and Television Programs, or the Radio and TV Programs Measures, are applicable for establishing institutions that produce and distribute radio and television programs or for the production of radio and television programs like programs with a special topic, column programs, variety shows, animated cartoons, radio plays and television

dramas and for activities like transactions and agency transactions of program copyrights. Pursuant to the Radio and TV Programs Measures, any entity that intends to produce or operate radio or television programs must first obtain the Permit for Production and Operation of Radio and TV Programs from SAPPRFT or its local branches.

Regulation Related to Internet Culture Activities

The Interim Administrative Provisions on Internet Culture, or the Internet Culture Provisions, which was promulgated by the Ministry of Culture, or MOC (currently known as the MOCT), require internet information services providers engaging in commercial “internet culture activities” to obtain an Internet Culture Business Operating License from the MOC. “Internet cultural activity” is defined under the Internet Culture Provisions as an act of provision of internet cultural products and related services, which includes (i) the production, duplication, importation, and broadcasting of the internet cultural products; (ii) the online dissemination whereby cultural products are posted on the internet or transmitted via the internet to end-users, such as computers, fixed-line telephones, mobile phones, television sets and games machines, for online users’ browsing, use or downloading; and (iii) the exhibition and competition of the internet cultural products. In addition, “internet cultural products” is defined under the Internet Culture Provisions as cultural products produced, broadcast and disseminated via the internet, which mainly include internet cultural products especially produced for the internet, such as online music entertainment, online games, online shows and plays (programs), online performances, online works of art and online cartoons, and internet cultural products produced from cultural products such as music entertainment, games, shows and plays (programs), performances, works of art, and cartoons through certain techniques and duplicating those to the internet for dissemination.

We currently do not hold an Internet Culture Business Operating License. On May 14, 2019, the General Office of MOC promulgated the Notice on Adjusting the Scope of Internet Culture Business Operating License and Further Standardize the Approval Work, which provides that online music, online shows and plays, online performances, online works of art, online cartoons, displays and games are the activities that fall in the scope of Internet Culture Business Operating License, and further clarifies that educational live-streaming activities are not online performances. Nevertheless, it remains unclear whether the local PRC government authorities would adopt a different practice. In addition, it remains uncertain whether the PRC government authorities would issue more explicit interpretation and rules or promulgate new laws and regulations. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—Our failure to obtain, maintain or renew other licenses, approvals, permits, registrations or filings necessary to conduct our and the VIEs’ operations in China could have a material adverse impact on our and the VIEs’ business, financial condition and results of operations.”

Regulation Related to Online Publishing

Under the Administrative Provisions on Online Publishing Services, or the Online Publishing Provisions, which was jointly issued by the SAPPRFT (currently reformed into the State Administration of Press and Publication (National Copyright Bureau) under the Propaganda Department of the Central Committee of the Communist Party of China) and the MIIT, any entity providing online publishing services shall obtain an Online Publishing License. “Online publishing services” refer to the provision of online publications to the public through information networks; and “online publications” refer to digital works with publishing features such as having been edited, produced or processed and are available to the public through information networks, including: (i) written works, pictures, maps, games, cartoons, audio/video reading materials and other original digital works containing useful knowledge or ideas in the field of literature, art, science or other fields; (ii) digital works of which the content is identical to that of any published book, newspaper, periodical, audio/video product, electronic publication or the like; (iii) network literature databases or other digital works, derived from any of the aforesaid works by selection, arrangement, collection or other means; and (iv) other types of digital works as may be determined by the SAPPRFT.

We currently do not hold an Online Publishing License. It remains unclear whether the local PRC government authorities would adopt a different practice. In addition, it remains uncertain whether the PRC government authorities would issue more explicit interpretation and rules or promulgate new laws and regulations. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—Our failure to obtain, maintain or renew other licenses, approvals, permits, registrations or filings necessary to conduct our and the VIEs’ operations in China could have a material adverse impact on our and the VIEs’ business, financial condition and results of operations.”

Regulation Related to Internet Information Security and Privacy Protection

The PRC Constitution states that the PRC laws protect the freedom and privacy of communications of citizens and prohibit infringement of such rights. PRC government authorities have enacted laws and regulations on internet information security and protection of personal information from any abuse or unauthorized disclosure. The Decisions on Maintaining Internet Security, which was enacted by the SCNPC, may subject violators to criminal punishment in the PRC for any effort to: (i) gain improper entry into a computer or system of strategic importance; (ii) disseminate politically disruptive information; (iii) leak state secrets; (iv) spread false commercial information; or (v) infringe intellectual property rights. The Ministry of Public Security has promulgated measures that prohibit use of the internet in ways which, among

other things, result in a leakage of state secrets or a spread of socially destabilizing content. If an information service provider violates these measures, the Ministry of Public Security and the local security bureaus may revoke its operating license and shut down its websites.

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Pursuant to the Decision on Strengthening the Protection of Online Information issued by the SCNPC, and the Order for the Protection of Telecommunication and Internet User Personal Information issued by the MIIT, any collection and use of user personal information must be subject to the consent of the user, abide by the principles of legality, rationality and necessity and be within the specified purposes, methods and scopes.

Pursuant to the Notice of the Supreme People's Court, the Supreme People's Procuratorate and the Ministry of Public Security on Legally Punishing Criminal Activities Infringing upon the Personal Information of Citizens and the Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Several Issues regarding Legal Application in Criminal Cases Infringing upon the Personal Information of Citizens, the following activities may constitute the crime of infringing upon a citizen's personal information: (i) providing a citizen's personal information to specified persons or releasing a citizen's personal information online or through other methods in violation of relevant national provisions; (ii) providing legitimately collected information relating to a citizen to others without such citizen's consent (unless the information is processed, not traceable to a specific person and not recoverable); (iii) collecting a citizen's personal information in violation of applicable rules and regulations when performing a duty or providing services; or (iv) collecting a citizen's personal information by purchasing, accepting or exchanging such information in violation of applicable rules and regulations.

Pursuant to the Ninth Amendment to the Criminal Law issued by the SCNPC, any person or entity that fails to fulfill the obligations related to internet information security administration as required by applicable laws and refuses to rectify upon orders is subject to criminal penalty for (i) any dissemination of illegal information in large scale; (ii) any severe effect due to the leakage of the client's information; (iii) any serious loss of criminal evidence; or (iv) other severe situation, and any individual or entity that (a) sells or provides personal information to others in a way violating the applicable law, or (b) steals or illegally obtain any personal information is subject to criminal penalty in severe situation.

Pursuant to the PRC Cybersecurity Law, or Cybersecurity Law, issued by the SCNPC, "personal information" refers to all kinds of information recorded by electronic or otherwise that can be used to independently identify or be combined with other information to identify individuals' personal information including but not limited to: individuals' names, dates of birth, ID numbers, biologically identified personal information, addresses and telephone numbers, etc. The Cybersecurity Law also provides that: (i) to collect and use personal information, network operators shall follow the principles of legitimacy, rightfulness and necessity, disclose rules of data collection and use, clearly express the purposes, means and scope of collecting and using the information, and obtain the consent of the persons whose data is gathered; (ii) network operators shall neither gather personal information unrelated to the services they provide, nor gather or use personal information in violation of the provisions of laws and administrative regulations or the scopes of consent given by the persons whose data is gathered; and shall dispose of personal information they have saved in accordance with the provisions of laws and administrative regulations and agreements reached with users; (iii) network operators shall not divulge, tamper with or damage the personal information they have collected, and shall not provide the personal information to others without the consent of the persons whose data is collected. However, if the information has been processed and cannot be recovered and thus it is impossible to match such information with specific persons, such circumstance is an exception.

Pursuant to the Provisions on Internet Security Supervision and Inspection by Public Security Organs, which was promulgated by the Ministry of Public Security, the public security departments are authorized to carry out internet security supervision and inspection of the internet service providers from the following aspects, among others: (i) whether the service providers have completed the recordation formalities for online entities, and filed the basic information on and the changes of the accessing entities and users; (ii) whether they have established and implemented the cybersecurity management system and protocols, and appointed the persons responsible for cybersecurity; (iii) whether the technical measures for recording and retaining users' registration information and weblog data are in place according to the law; (iv) whether they have taken technical measures to prevent computer viruses, network attacks and network intrusion; (v) whether they have adopted preventive measures to tackle the information that is prohibited to be issued or transmitted by the laws and administrative regulations in the public information services; (vi) whether they provide technical support and assistance as required by laws to public security departments to safeguard national security and prevent and investigate on terrorist activities and criminal activities; and (vii) whether they have fulfilled the obligations of the grade-based cybersecurity protection and other obligations prescribed by the laws and administrative regulations. In particular, public security departments shall also carry out supervision and inspection on whether an internet service provider has taken required measures to manage information published by users, adopted proper measures to handle the published or transmitted information that is prohibited to be published or transmitted, and kept the relevant records.

In addition, the Office of the Central Cyberspace Affairs Commission, the MIIT, the Ministry of Public Security, and the SAMR jointly

issued an Announcement of Launching Special Crackdown Against Illegal Collection and Use of Personal Information by Apps to carry out special campaigns against mobile apps collecting and using personal information in violation of applicable laws and regulations, which prohibits business operators from collecting personal information irrelevant to their services, or forcing users to give authorization in disguised manner. Furthermore, the MIIT, the Ministry of Public Security and the SAMR jointly issued the Notice on Promulgation of the Method for Identifying the Illegal Collection and Use of Personal Information by Apps, which provides further details in identifying the illegal collection and use of personal information by apps.

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On August 22, 2019, the CAC issued the Provisions on the Cyber Protection of Children's Personal Information, which took effect on October 1, 2019. The Provisions on the Cyber Protection of Children's Personal Information apply to the collection, storage, use, transfer and disclosure of the personal information of children under the age of 14, or the Children, via the internet. The Provisions on the Cyber Protection of Children's Personal Information require that network operators shall establish special rules and user agreements for the protection of the Children's personal information, inform the Children's guardians in a noticeable and clear manner, and shall obtain the consent of the Children's guardians. When obtaining the consent of the Children's guardians, network operators shall explicitly inform of several matters, including without limitation, the purpose, method and scope of collection, storage, use, transfer and disclosure of the personal information of the Children, and methods for correcting and deleting the Children's personal information. Provisions on the Cyber Protection of Children's Personal Information also require that when collecting, storing, using, transferring and disclosing personal information of the Children, network operators shall comply with certain regulatory requirements, including without limitation, that network operators shall designate specific personnel to take charge of the protection of Children's personal information and shall strictly set the information access authority for their staff to the Children's personal information in the principle of minimal authorization.

Pursuant to the Notice on Promulgation of the Rules on the Scope of Necessary Personal Information for Common Types of Mobile Internet Applications, which was promulgated by the CAC, the MIIT and certain other government authorities on March 12, 2021 to be effective on May 1, 2021, "necessary personal information" refers to the personal information necessary for ensuring the normal operation of an app's basic functional services, without which the app cannot achieve its basic functional services. For learning and education app, the basic functional services are "online tutoring, online classes, etc." and the necessary personal information is mobile phone numbers of registered users.

According to the Civil Code, which took effect on January 1, 2021, a natural person shall have the right of privacy and the personal information of a natural person shall be protected in accordance with law. Information processors shall not divulge or tamper with the personal information collected or stored by them and shall not illegally provide any natural person's personal information to others without the consent of such natural person.

The SAMR promulgated the Measures for the Supervision and Administration of Online Transactions, which became effective on May 1, 2021. The measures require that online transaction operators shall not force customers, whether or not in a disguised manner, to consent to the collection and use of information not directly related to their business activities by means of one-off general authorization, default authorization, bundling with other authorizations, or the suspension of installation and use. Otherwise, such online transaction operator may be subject to fines and consequences under related laws and regulations, including without limitation suspension of business for rectification and revocation of permits and licenses.

On June 10, 2021, the SCNPC promulgated the Data Security Law of the PRC, which came into effect on September 1, 2021. The Data Security Law provides for data security and privacy obligations on entities and individuals carrying out data activities. The Data Security Law also introduces a data classification and hierarchical protection system based on the importance of data in economic and social development, as well as the degree of harm it will cause to national security, public interests, or legitimate rights and interests of individuals or organizations when such data is tampered with, destroyed, leaked, or illegally acquired or used. The appropriate level of protection measures is required to be taken for each respective category of data. For example, a processor of important data shall designate the personnel and the management body responsible for data security, carry out risk assessments for its data processing activities and file the risk assessment reports with the competent authorities. In addition, the Data Security Law provides a national security review procedure for those data activities which may affect national security and imposes export restrictions on certain data and information. No entity or individual within the territory of the PRC may provide foreign judicial or law enforcement authorities with the data stored within the territory of the PRC without the approval of the competent PRC authorities.

On August 20, 2021, the SCNPC promulgated the Personal Information Protection Law, which became effective on November 1, 2021. The Personal Information Protection Law aims at protecting the personal information rights and interests, regulating the processing of personal information, ensuring the orderly and free flow of personal information in accordance with the law, and promoting the reasonable use of personal information, personal information refers to any recorded information related to identified or identifiable natural persons, though it excludes anonymized information.

The Personal Information Protection Law also specified the rules for handling sensitive personal information, which includes biometrics, religious beliefs, specific identities, medical health, financial accounts, trails and locations, and personal information of teenagers under

fourteen years old and other personal information, which, upon leakage or illegal usage, may easily infringe the personal dignity or harm of safety of livelihood and property. Personal information handlers shall bear responsibility for their personal information handling activities, and adopt necessary measures to safeguard the security of the personal information they handle. Otherwise, the personal information handlers will be ordered for rectification or suspension or termination of provision of services, confiscation of illegal income, subject to fines or other penalties. According to the Personal Information Protection Law

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On January 4, 2022, the CAC published the Revised Cybersecurity Review Measures, which took effect on February 15, 2022 and repeal the Cybersecurity Review Measures promulgated on April 13, 2020. The Revised Cybersecurity Review Measures provide that a critical information infrastructure operator purchasing network products and services, and platform operators carrying out data processing activities, which affect or may affect national security, shall apply for cybersecurity review and that a platform operator with more than one million users' personal information aiming to list abroad must apply for cybersecurity review.

On July 30, 2021, the State Council promulgated the Regulations on Critical Information Infrastructure Security Protection, which went into effect on September 1, 2021. The regulations provide that, among others, critical information infrastructure, or the CIIO, means important network facilities and information systems in important industries such as public communications and information services, energy, transportation, water conservancy, finance, public services, e-government, defense technology industry and others that may seriously harm national security, national economy, people's livelihood and public interests once damaged, disabled or its data disclosed. Operators shall, based on leveled system for cybersecurity protection, adopt technical protection measures and other necessary measures to deal with cybersecurity security events, defend against cyber-attack and criminal activities, to ensure the safe and stable operation of CIIO, maintain data integrity, confidentiality, and availability pursuant to relevant laws, regulations and the mandatory requirements of national standards. Moreover, the competent supervisory departments of relevant important industries abovementioned shall organize the recognition of the CIIO and promptly notify the operators and Public Security Department of The State Council of the results of the identification.

On July 6, 2021, General Office of the State Council of the PRC together with another authority jointly promulgated the Opinions on Strictly Cracking Down on Illegal Securities Activities, or the Securities Activities Opinions, which called for the enhanced administration and supervision of overseas-listed China-based companies, proposed to revise the relevant regulation governing the overseas issuance and listing of shares by such companies and clarified the responsibilities of competent domestic industry regulators and government authorities. The Securities Activities Opinions also call for improving laws and regulations on data security, cross-border data flow and management of confidential information.

On November 14, 2021, the CAC released the Regulations on Network Data Security Management (Draft for Comments), or the Draft Regulations, which clarifies how data should be categorized and hierarchized under the principle laid down by Cybersecurity Law and Data Security Law. The Draft Regulations further imposes a higher standard of compliance on processors of important data (including those processing personal data of more than one million users). Under the Draft Regulations, a cybersecurity review will be required in case of the following: (i) merger, restructuring or separation of network platform operators that have acquired a large number of data resources related to national security, economic development or public interests where this affects or could affect national security; (ii) listing abroad by data processors processing over one million users' personal information; (iii) listing in Hong Kong by data processors which affects or may affect national security; (iv) other data processing activities that affect or may affect national security. In addition, the Draft Regulations requires processors of important data or the data processors listed overseas to conduct an annual security assessment, either through a self-assessment, or by a qualified third party, and submit the annual assessment report to the local cybersecurity regulators. As of the date of this annual report, the Draft Regulations were released for public comments only and the final version and effective date of such regulations are subject to substantial uncertainty.

On January 4, 2022, the CAC published the Administrative Provisions on Internet Information Service Algorithm Recommendation on its website, or the Algorithm Recommendation Provisions, which became effective on March 1, 2022 and raise certain new compliance requirements on internet information service providers using algorithm recommendation technology. Specifically, the Algorithm Recommendation Provisions require that such service providers shall provide users with options that are not specific to their personal characteristics, or provide users with convenient options to cancel algorithmic recommendation services. In addition, such service providers with public opinion attribute or social mobilization ability shall, within ten working days from the date of provision of services, fill relevant information via the internet information service algorithm filing system.

On July 7, 2022, the CAC promulgated the Security Assessment Measures for Outbound Data Transfer, or the Outbound Data Transfer Measures, which became effective on September 1, 2022. The Outbound Data Transfer Measures provide that a data processor providing data abroad in the following situations shall report security assessment for its outbound data transfer to the CAC: (i) a data processor provides important data abroad; (ii) a critical information infrastructure operator or a data processor processing the personal information of more than one million individuals provides personal information abroad; (iii) a data processor, who has cumulatively provided personal information of 100,000 individuals or sensitive personal information of 10,000 individuals abroad since January 1 of the previous year, provides personal information abroad; and (iv) other circumstances prescribed by the CAC for which report for security assessment for

outbound data transfers is required. According to the Guidelines on Security Assessment Report for Outbound Data Transfer promulgated by the CAC, outbound data transfer means (i) a data processor transfers or stores the data collected or generated during its operation within the PRC abroad, (ii) data collected and generated by a data processor is stored within the PRC while offshore institutions or individuals are able to inquire, retrieve, download and obtain such data; and (iii) other outbound data transfer activities prescribed by the CAC.

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The CAC amended the Mobile Application Administrative Provisions in June 2022, which became effective from August 1, 2022, and emphasized that mobile internet applications providers shall comply with relevant provisions on the scope of necessary personal information when engaging in personal information processing activities. Such application providers shall not compel the user to agree to the processing of personal information for any reason, and shall not refuse the user to use its basic functions and services because the user does not agree to provide unnecessary personal information.

On June 27, 2022, the CAC promulgated the Administrative Provisions on the Account Information of Internet Users, effective from August 1, 2022, or the Account Information Provisions, which applies to the registration, use, and management of internet users' account information by internet information service providers. The Account Information Provisions also requires that the internet information service providers shall protect and process internet users' account information in accordance with law, and take measures to prevent unauthorized access and leakage, tampering, and loss of personal information. The internet information service providers shall set up convenient complaints and reporting portals in prominent locations, publicize complaints and reporting methods, improve mechanisms for acceptance, screening, disposal, and feedback, clarify processing procedures and time limits for feedback, and promptly handle complaints and reports from users and the public.

Regulation Related to Publishing

The Administrative Regulations on Publication, promulgated by the State Council and most recently amended on November 29, 2020, applies to publication activities, i.e., the publishing, printing, copying, importation or distribution of publications, including newspapers, periodicals, books, audio and video products and electronic publications. According to the Administrative Regulations on Publication, any entity engaging in the activities of publishing, printing, copying, importation or distribution of publications, shall obtain relevant permits of publishing, printing, copying, importation or distribution of publications.

Under the Administrative Provisions on the Publications Market, or the Publication Market Provisions, which was jointly promulgated by the SAPPRFT and the MOFCOM, any enterprise or individual who engages in publishing activities shall obtain a Publishing Operation Permit from SAPPRFT or its local counterpart. Without licensing, such entity or individual may be ordered to cease illegal acts by the competent administrative department of publication and be concurrently subject to fines.

Regulation Related to Scope of Business

Under the Implementation Rules for the Administrative Regulations on Registration of Enterprise Legal Persons promulgated by SAIC, enterprises shall engage in business activities in accordance with the scope of business approved and registered by the registration authorities. Enterprises which engage in business activities beyond the approved and registered scope of business shall be given a warning, depending on the extent of the offense, illegal income shall be confiscated, a fine of no more than three times the amount of the illegal income shall be imposed, capped at RMB30,000; where there is no illegal income, a fine of no more than RMB10,000 shall be imposed.

Regulation Related to Advertising and Promotion

The principal regulations governing advertising businesses in China are the PRC Advertising Law and the Advertising Administrative Regulations promulgated by the State Council. These laws, rules and regulations require companies that engage in advertising activities to obtain a business license that explicitly includes advertising in the business scope from the SAIC or its local branches.

Applicable PRC advertising laws, rules and regulations contain certain prohibitions on the content of advertisements in China (including prohibitions on misleading content, superlative wording, socially destabilizing content or content involving obscenities, superstition, violence, discrimination or infringement of the public interest). Advertisements for anesthetic, psychotropic, toxic or radioactive drugs are prohibited, and the dissemination of advertisements of certain other products, such as tobacco, patented products, pharmaceuticals, medical instruments, agrochemicals, foodstuff, alcohol and cosmetics, are also subject to specific restrictions and requirements. Education and/or training advertisements shall not contain the following contents: (i) explicit or implicit guarantee for successful enrollment to a higher grade, passing of examination, obtaining of degree qualification or passing certificate, or the effect of education or training; (ii) explicit or implicit expression of participation by the relevant examination body or its personnel, or personnel setting examination questions in the education or training; and (iii) recommendation and/or endorsement by scientific research institutes, academic institutions, educational organizations, industry associations, professionals or beneficiaries using their name or image.

The Alleviating Burden Opinion requires that no advertisements in connection with after-school tutoring services shall be published or broadcasted on the network platforms and billboards displayed on the mainstream media, new media, public space and residential areas. Further, the SAMR jointly with other government authorities promulgated the Notice on the Control of Advertisements for After-school Tutoring on November 3, 2021 which specifies such requirements under the Alleviating Burden Opinion applies to advertisements for both academic and non-academic tutoring, and relevant local authorities shall implement measures to achieve such requirements.

Advertisers, advertising operators and advertising distributors are required by applicable PRC advertising laws, rules and regulations to ensure that the content of the advertisements they prepare or distribute are true and in compliance with applicable laws, rules and regulations. Violation of these laws, rules and regulations may result in penalties, including fines, confiscation of advertising income, orders to cease dissemination of the advertisements and orders to publish an advertisement correcting the misleading information. In circumstances involving serious violations, the SAIC or its local branches may revoke the violator's license or permit for advertising business operations. In addition, advertisers, advertising operators or advertising distributors may be subject to civil liability if they infringe the legal rights and interests of third parties, such as infringement of intellectual proprietary rights, unauthorized use of a name or portrait and defamation.

In addition, the Anti-Unfair Competition Law promulgated by the Standing Committee of the National People's Congress, last amended on April 23, 2019, requires that business operators shall not make false or misleading commercial promotion for the performance, functions, quality, sales, user evaluation, accolades, etc., as to defraud or mislead customers. On August 17, 2021, the SAMR released the Provisions on Prohibition of Unfair Competition on the Internet (Draft for Comments), or the Draft Provisions, which prohibits business operators from making false or misleading advertising about themselves or their products' sales status, transaction information, operating data, and users' evaluations, thereby deceiving or misleading consumers or other relevant parties. The Draft Provisions specifies some new types of unfair competition behaviors under the relevant provisions of the Anti-Unfair Competition Law, which may restrict competition, among others, using data, algorithms and other technical means to carry out traffic hijacking, interference, malicious incompatibility and other improprieties to influence user choices or hinder or damage the normal operation of network products or services offered by other business operators. The Draft Provisions also prohibits several types of new unfair competition behaviors that are not classified under the Anti-Unfair Competition Law, among others, click farming, blocking without due cause and illegal data crawling.

Regulation Related to Pricing

The PRC Pricing Law, or Pricing Law, is promulgated by the Standing Committee of the National People's Congress on December 29, 1997 and became effective on May 1, 1998. Pursuant to the Pricing Law, an operator is prohibited from using false or misunderstanding pricing methods to trick consumers or other operators into trading with it. Otherwise, such operator may be subject to penalties, including orders to make correction, confiscation of illegal income, fines, orders to cease operation for rectification or revocation of the business licenses.

Regulation Related to Intellectual Property Rights

Copyright and Software Registration

The SCNPC promulgated the PRC Copyright Law in 1990, or the Copyright Law, and last revised it on November 11, 2020 with the amendments becoming effective on June 1, 2021. The amended Copyright Law extends copyright protection to internet activities, products disseminated over the internet and software products, audio-visual works and any other intellectual achievements which comply with the characteristics of the works. In addition, there is a voluntary registration system administered by the China Copyright Protection Center. To address the problem of copyright infringement related to the content posted or transmitted over the internet, the National Copyright Administration, or the NCAC, and the MIIT jointly promulgated the Measures for Administrative Protection of Copyright Related to Internet.

The Computer Software Protection Regulations promulgated by the State Council are formulated for protecting the rights and interests of computer software copyright owners, encouraging the development and application of computer software and promoting the development of software business. In order to further implement the Computer Software Protection Regulations, the NCAC issued the Computer Software Copyright Registration Procedures, which apply to software copyright registration, license contract registration and transfer contract registration.

Patents

Under the Patent Law of the PRC, or the Patent Law, adopted by the SCNPC, a patentable invention, utility model or design must meet three conditions, namely novelty, inventiveness and practical applicability. Patents cannot be granted for scientific discoveries, rules and methods for intellectual activities, methods used to diagnose or treat diseases, animal and plant breeds or substances obtained by means of nuclear transformation. The Patent Office under the State Intellectual Property Office is responsible for receiving, examining and approving patent applications. The Patent Law was last amended on October 17, 2020, which came into effect on June 1, 2021, pursuant to which a patent is valid for a 20-year term for an invention, a 10-year term for a utility model and a 15-year term for a design, all starting from the application date. Except under certain specific circumstances provided by law, any third-party user must obtain consent or a proper license from the patent owner to use the patent, otherwise the use will constitute an infringement of the rights of the patent holder.

Trademark

Trademarks are protected by the PRC Trademark Law and its implementation rule. The Trademark Office of National Intellectual Property Administration under the SAIC handles trademark registrations and grants a protection term of 10 years to registered trademarks, which may be renewed for consecutive 10-year periods upon request by the trademark owner. The PRC Trademark Law has adopted a "first-to-file" principle with respect to trademark registration. Where a trademark for which a registration has been made is identical or similar to another trademark which has already been registered or been subject to a preliminary examination and approval for use on the same kind of or similar commodities or services, the application for registration of such trademark may be rejected. Any person applying for the registration of a trademark may not prejudice the existing right first obtained by others, nor may any person register in advance a trademark that has already been used by another party and has already gained a "sufficient degree of reputation" through such party's use. An application for registration of a malicious trademark not for use shall be rejected and those who apply for trademark registration maliciously shall be given administrative penalties of warning or fines according to the circumstances; those who file trademark lawsuits maliciously shall be punished by the people's court according to applicable laws.

Domain Name

According to the Administrative Measures on Internet Domain Names, or the Domain Name Measures, any party that has domain name root servers, and the institution for operating domain name root servers, the domain name registry and the domain name registrar within the territory of China, shall obtain a permit for this purpose from the MIIT or the communications administration of the local province, autonomous region or municipality directly under the central government. The registration of domain names is generally on a "first-apply-first-registration" basis and a domain name applicant will become the domain name holder upon the completion of the application procedure.

On May 28, 2020, the National People's Congress promulgated the Civil Code, which took effect on January 1, 2021. Under the Civil Code, if an offender intentionally infringes upon the intellectual property rights of others and the circumstance is severe, the infringed party shall have the right to request for the corresponding punitive compensation.

Regulation Related to Employment, Social Insurance and Housing Fund

Employment

Pursuant to the PRC Labor Law and the PRC Labor Contract Law, a written labor contract shall be executed by an employer and an employee when the employment relationship is established. All employers must compensate their employees equal to at least the local minimum wage standards. All employers are required to establish a system for labor safety and sanitation, strictly abide by state rules and standards and provide employees with appropriate workplace safety training. In addition, the PRC government has continued to introduce various new labor-related regulations after the PRC Labor Contract Law. Amongst other things, new annual leave requirements mandate that annual leave ranging from five to 15 days is available to nearly all employees and further require that the employer compensate an employee for any annual leave days the employee is unable to take in the amount of three times his daily salary, subject to certain exceptions. Moreover, all PRC enterprises are generally required to implement a standard working time system of eight hours a day and 40 hours a week, and if the implementation of such standard working time system is not appropriate due to the nature of the job or the characteristics of business operation, the enterprise may implement a flexible working time system or comprehensive working time system after obtaining approvals from the relevant authorities.

Social Insurance

The Law on Social Insurance of the PRC has established social insurance systems of basic pension insurance, unemployment insurance, maternity insurance, work injury insurance and basic medical insurance, and has elaborated in detail the legal obligations and liabilities of employers who do not comply with relevant laws and regulations on social insurance.

According to the Interim Regulations on the Collection and Payment of Social Insurance Premiums, the Regulations on Work Injury Insurance, the Regulations on Unemployment Insurance and the Overseas Listing Trial Measures on Employee Maternity Insurance of Enterprises, enterprises in the PRC shall provide benefit plans for their employees, which include basic pension insurance, unemployment insurance, maternity insurance, work injury insurance and basic medical insurance. An enterprise must provide social insurance by going through social insurance registration with local social insurance authorities or agencies, and shall pay or withhold relevant social insurance premiums for or on behalf of employees. On July 20, 2018, the General Office of the State Council issued the Plan for Reforming the State and Local Tax Collection and Administration Systems, which stipulates that STA of the PRC becomes solely responsible for collecting social insurance premiums.

Housing Fund

According to the Administrative Regulations on the Administration of Housing Fund, housing funds paid and deposited both by employees themselves and their unit employer shall be owned by the employees.

An employer shall undertake registration of payment and deposit of the housing fund in the housing fund management center and open a housing fund account on behalf of its employees in a commissioned bank. Employers shall timely pay and deposit housing fund contributions in full amount, and late or insufficient payments shall be prohibited.

On February 21, 2020, the Ministry of Housing and Urban-Rural Development of the PRC, the Ministry of Finance of the PRC and People's Bank of China jointly promulgated the Notice on Implementing the Phased Support Policies Involving Housing Fund to Properly Cope with the COVID-19, which provides that, among other things, an enterprise affected by COVID-19 may apply for postponing contribution to the housing fund by June 30, 2020 in accordance with the relevant provisions, the contribution period will be counted on a continuous basis during the postponing period, and the normal withdrawal and application for housing fund loans by employees will not be affected; and in regions with identified serious COVID-19, enterprises may voluntarily contribute to the housing provident fund by June 30, 2020 on the premise of full consultation with their employees. In the event that the contribution continues, enterprises may determine the contribution ratio at their discretion; in the event of suspension of contribution, the contribution period shall continue to run and the normal withdrawal of housing fund by the employees and their application for housing fund loan will not be affected.

Regulation Related to Foreign Exchange

Regulation on Foreign Currency Exchange

The principal regulations governing foreign currency exchange in China are the PRC Foreign Exchange Administration Regulations, or the Foreign Exchange Administration Regulations. Under the Foreign Exchange Administration Regulations, Renminbi is generally freely convertible for payments of current account items, such as trade and service-related foreign exchange transactions and dividend payments, but not freely convertible for capital account items, such as direct investment, loan or investment in securities outside China, unless prior approval of State Administration of Foreign Exchange, or the SAFE, or its local counterparts has been obtained.

The Circular on Reforming the Management Approach regarding the Foreign Exchange Capital Settlement of Foreign-Invested Enterprise promulgated by the SAFE, or SAFE Circular 19, allows FIEs to settle their foreign exchange capital at their discretion. The Renminbi converted from the foreign exchange capital will be kept in a designated account and if an FIE needs to make further payment from such account, it still needs to provide supporting documents and proceed with the review process with the banks. Furthermore, SAFE Circular 19 stipulates that the use of capital by FIEs shall follow the principles of authenticity and self-use within the business scope of enterprises. The capital of an FIE and capital in Renminbi obtained by the FIE from foreign exchange settlement shall not be used for the following purposes:

- (i) directly or indirectly used for payments beyond the business scope of the enterprises or payments as prohibited by relevant laws and regulations;
- (ii) directly or indirectly used for investment in securities unless otherwise provided by the relevant laws and regulations;
- (iii) directly or indirectly used for granting entrusted loans in Renminbi (unless permitted by the scope of business), repaying inter-enterprise

borrowings (including advances by the third party) or repaying the bank loans in Renminbi that have been sub-lent to third parties; or
(iv) directly or indirectly used for expenses related to the purchase of real estate not for self-use (except for the foreign-invested real estate enterprises).

Pursuant to the Circular on Reforming and Regulating Policies on the Control over Foreign Exchange Settlement of Capital Accounts, or SAFE Circular 16, enterprises registered in the PRC may also convert their foreign debts from foreign currency to Renminbi on a self-discretionary basis. SAFE Circular 16 provides an integrated standard for conversion of foreign exchange under capital account items (including but not limited to foreign currency capital and foreign debts) on a self-discretionary basis, which applies to all enterprises registered in China. SAFE Circular 16 reiterates the principle that Renminbi converted from foreign currency-denominated capital of a company may not be directly or indirectly used for purposes beyond its business scope or prohibited by PRC Laws, while such converted Renminbi shall not be provided as loans to its non-affiliated entities.

According to the Circular on Administration of Foreign Exchange on Further Promoting the Facilitation of Cross-Border Trade and Investment, non-investment FIEs are allowed to make domestic equity investments with their capital funds, provided that the existing negative list for foreign investment is complied with and the projects invested thereby in China are true and complied with applicable laws and regulations.

Regulation on Foreign Debt

A loan made by a foreign entity as direct or indirect shareholder in an FIE is considered to be foreign debt in China and is regulated by various laws and regulations, including the Regulation of the People's Republic of China on Foreign Exchange Administration, the Interim Provisions on the Management of Foreign Debts, the Statistical Monitoring of Foreign Debts Tentative Provisions, the Detailed Rules for the Implementation of Provisional Regulations on Statistics and Supervision of Foreign Debt, and the Administrative Measures for Registration of Foreign Debts. Under these rules and regulations, a shareholder loan in the form of foreign debt made to a PRC entity does not require the prior approval of SAFE. However, such foreign debt must be registered with and recorded by SAFE or its local branches within 15 business days after entering into the foreign debt contract. Pursuant to these rules and regulations, the maximum amount of the aggregate of (i) the outstanding balance of foreign debts with a term not longer than one year, and (ii) the accumulated amount of foreign debts with a term longer than one year, of an FIE shall not exceed the difference between its registered total investment and its registered capital, or Total Investment and Registered Capital Balance.

On January 12, 2017, the People's Bank of China, or PBOC, promulgated the Notice of the People's Bank of China on Matters concerning the Macro-Prudential Management of Full-Covered Cross-Border Financing, or PBOC Circular 9, which sets forth an upper limit for PRC entities, including FIEs and domestic enterprises, regarding their foreign debts. Pursuant to PBOC Circular 9, PBOC establishes a cross-broader financing regulation system based on the capital or net assets of the micro main body under macro-prudential rules, and the legal entities and financial institutions established in PRC including the branches of foreign banks registered in China but excluding government financing vehicles and real estate enterprise may carry out cross-border financing of foreign currency in accordance with relevant regulations of such system. PBOC Circular 9 provides that, among other things, the outstanding amount of the foreign currency for the entities in cross-border financing shall be limited to the Upper Limit of the Risk Weighted Balance of such entity, which shall be calculated according to the formula provided in PBOC Circular 9. PBOC Circular 9 also provides that during the one-year period started from January 11, 2017, foreign-invested enterprises may choose one method to carry out cross-broader financing in foreign currency either according to PBOC Circular 9 or according to the Interim Provisions on the Management of Foreign Debts. After the end of such one-year period, the method of foreign-invested enterprises to carry out cross-broader financing in foreign currency will be determined by PBOC and SAFE. As of the date of this annual report, neither the PBOC nor SAFE has promulgated and made public any further rules, regulations, notices or circulars in this regard. In addition, according to PBOC Circular 9, a foreign loan must be filed with SAFE through the online filing system of SAFE after the loan agreement is signed and at least three business days prior to the borrower withdraws any amount from such foreign loan.

Regulation on Foreign Exchange Registration of Overseas Investment by PRC Residents

SAFE issued Circular on Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Offshore Investment and Financing and Roundtrip Investment Through Special Purpose Vehicles, or SAFE Circular 37, to regulate foreign exchange matters in relation to the use of special purpose vehicles, or SPVs, by PRC residents or entities to seek offshore investment and financing or conduct round trip investment in China. Under SAFE Circular 37, an SPV refers to an offshore entity established or controlled, directly or indirectly, by PRC residents (including individuals and entities) for the purpose of seeking offshore financing or making offshore investment, using legitimate onshore or offshore assets or interests, while "round trip investment" refers to direct investment in China by PRC residents through SPVs, namely, establishing foreign-invested enterprises to obtain the ownership, control rights and management rights. The term "control" under SAFE Circular 37 is broadly defined as the operation rights, beneficiary rights or decision-making rights acquired by PRC residents in the

offshore special purpose vehicles by means of acquisition, trust, proxy, voting rights, repurchase, convertible bonds or other arrangements. SAFE Circular 37 provides that, before making contribution into an SPV, PRC residents are required to complete foreign exchange registration with SAFE or its local branch. SAFE promulgated the Notice on Further Simplifying and Improving Foreign Exchange Administration Policy on Direct Investment, or SAFE Notice 13, which provides that applications for foreign exchange registration of inbound foreign direct investments and outbound overseas direct investments, including those required under SAFE Circular 37, will be filed with qualified banks instead of SAFE. SAFE Notice 13 further provides that annual inspection of inbound foreign direct investments and outbound overseas direct investments is canceled. Instead, relevant entities or individuals, as the case may be, shall register data and information with respect to their inbound foreign direct investments and outbound overseas direct investment interests with SAFE.

An amendment to the registration is required if there is a material change with respect to the SPV registered, such as any change of basic information (including change of the PRC residents, name and operation term), increases or decreases in investment amount, transfers or exchanges of shares, and mergers or divisions. Failure to comply with the registration procedures set forth in SAFE Circular 37 and the subsequent notice, or making misrepresentation on or failure to disclose controllers of the FIE that is established through round-trip investment, may result in restrictions being imposed on the foreign exchange activities of the relevant FIE, including payment of dividends and other distributions, such as proceeds from any reduction in capital, share transfer or liquidation, to its offshore parent or affiliate, and the capital inflow from the offshore parent, and may also subject relevant PRC residents or entities to penalties under PRC foreign exchange administration regulations.

Regulation Related to Stock Incentive Plans

SAFE promulgated the Notices on Issues Concerning the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plan of Overseas Publicly Listed Company, or the Stock Option Rules, in February 2012, replacing the previous rules issued by SAFE in March 2007. Under the Stock Option Rules and other relevant rules and regulations, PRC citizens and non-PRC citizens who reside in China for a continuous period of not less than one year who participate in any stock incentive plan of an overseas publicly listed company, subject to a few exceptions, are required to register with SAFE through a domestic qualified agent, which could be the PRC subsidiaries of such overseas-listed company, and complete certain other procedures. The domestic qualified agent is required to amend the SAFE registration with respect to the stock incentive plan if there is any material change to the stock incentive plan, the domestic qualified or other material changes. In addition, an overseas-entrusted institution must be retained to handle matters in connection with the exercise or sale of stock options and the purchase or sale of shares and interests.

In addition, the STA has issued certain circulars concerning employee share options or restricted shares. Under these circulars, the employees working in China who exercise share options or are granted restricted shares will be subject to PRC individual income tax. The PRC subsidiaries of such overseas-listed company have obligations to file documents related to employee share options or restricted shares with relevant tax authorities and to withhold individual income taxes of those employees who exercise their share options. If the employees fail to pay or the PRC subsidiaries fail to withhold their income taxes according to relevant laws and regulations, the PRC subsidiaries may face sanctions imposed by the tax authorities or other PRC government authorities.

Regulation Related to Taxation

Enterprise Income Tax

The Enterprise Income Tax Law enacted by the National People's Congress and the Implementing Rules of the Enterprise Income Tax Law promulgated by the State Council (or collectively, the PRC EIT Law) apply a uniform 25% enterprise income tax rate to both foreign-invested enterprises and domestic enterprises, except where tax incentives are granted to special industries and projects. Enterprises qualifying as "High and New Technology Enterprises" are entitled to a 15% enterprise income tax rate rather than the 25% uniform statutory tax rate. The preferential tax treatment continues as long as an enterprise can retain its "High and New Technology Enterprise" status.

Under the PRC EIT Law, an enterprise established outside China with its "de facto management body" located in China is considered a "resident enterprise," which means it can be treated as domestic enterprise for enterprise income tax purposes. A non-resident enterprise that does not have an establishment or place of business in China, or has an establishment or place of business in China but the income of which has no actual relationship with such establishment or place of business, shall pay enterprise income tax on its income deriving from inside China at the reduced rate of enterprise income tax of 10% and such income tax shall be subject to withholding at the source, where the payer shall act as the withholding agent. Dividends generated after January 1, 2008 and payable by a foreign-invested enterprise in China to its foreign enterprise investors are subject to a 10% withholding tax, unless any such foreign investor's jurisdiction of incorporation has a tax treaty with China that provides for a preferential withholding arrangement.

The Notice on Issues Concerning the Determination of Chinese-Controlled Enterprises Registered Overseas as Resident Enterprises on the Basis of Their Bodies of Actual Management, or the STA Circular 82, provides certain specific criteria for determining whether the "de facto management body" of a PRC-controlled enterprise that is incorporated offshore is located in China. According to the STA Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its "de facto management body" in China, and will be subject to PRC enterprise income tax on its global income only if all of the

following conditions are met: (i) the primary location of the day-to-day operational management is in the PRC; (ii) decisions relating to the enterprise's financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (iii) the enterprise's primary assets, accounting books and records, company seals, and board and shareholder resolutions are located or maintained in the PRC; and (iv) at least 50% of voting board members or senior executives habitually reside in the PRC.

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Pursuant to the Arrangement between Mainland China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and Tax Evasion on Income, the withholding tax rate in respect of the payment of dividends by a PRC enterprise to a Hong Kong enterprise may be reduced to 5% from a standard rate of 10% if the Hong Kong enterprise directly holds at least 25% of the PRC enterprise and certain other conditions are met. Pursuant to the Notice of the State Taxation Administration on the Issues concerning the Application of the Dividend Clauses of Tax Agreements, a Hong Kong resident enterprise must meet the following conditions, among others, in order to apply the reduced withholding tax rate: (i) it must be a company; (ii) it must directly own the required percentage of equity interests and voting rights in the PRC resident enterprise; and (iii) it must have directly owned such required percentage in the PRC resident enterprise throughout the 12 months prior to receiving the dividends.

The Announcement of the State Taxation Administration on Several Issues Concerning the Enterprise Income Tax on Indirect Property Transfer by Non-Resident Enterprises issued by the STA, or STA Bulletin 7, extends its tax jurisdiction to transactions involving the transfer of taxable assets through offshore transfer of a foreign intermediate holding company. Pursuant to STA Bulletin 7, where a non-resident enterprise indirectly transfers properties such as equity in PRC resident enterprises without any justifiable business purposes and aiming to avoid the payment of enterprise income tax, such indirect transfer must be reclassified as a direct transfer of equity in PRC resident enterprise. To assess whether an indirect transfer of PRC taxable properties has reasonable commercial purposes, all arrangements related to the indirect transfer must be considered comprehensively and factors set forth in STA Bulletin 7 must be comprehensively analyzed in light of the actual circumstances. In addition, SAT Bulletin 7 has introduced safe harbors for internal group restructurings and the purchase and sale of equity securities through a public securities market.

The Announcement of the State Taxation Administration on Issues Concerning the Withholding of Non-resident Enterprise Income Tax at Source issued by the STA later, or STA Bulletin 37, further clarifies the practice and procedure of the withholding of non-resident enterprise income tax.

In addition, according to the PRC EIT Law and its implementation regulations and the Arrangement between mainland China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and Tax Evasion on Income, our PRC subsidiaries are also required to withhold a 10% (or 7% if paid to a Hong Kong resident who qualifies for the benefits of the tax treaty between China and Hong Kong) tax on interest paid under any cross-border shareholder loan. According to the Announcement on Issues Relating to Tax Filing for External Payments of Trade in Services and Other Transactions promulgated by STA and SAFE on July 9, 2013, which came into effect on September 1, 2013, prior to the payment of any interest and principal on any such shareholder loan, our PRC subsidiaries must present evidence of registration with SAFE regarding any such shareholder loan and may be required to provide evidence of filing regarding such payment with the PRC tax authorities, which is subject to the tax authorities' verification.

Value-Added Tax

Pursuant to the Provisional Regulations on PRC Value-Added Tax and its implementation regulations, unless otherwise specified by relevant laws and regulations, any entity or individual engaged in the sales of goods, provision of processing, repairs and replacement services and importation of goods into China is generally required to pay a value-added tax, or VAT, for revenues generated from sales of products, while qualified input VAT paid on taxable purchase can be offset against such output VAT.

Pursuant to the Notice on the Policy and Collection Management of Cultural Development Fees in the Pilot Project of Replacing Business Tax with Value-Added Tax promulgated by the Ministry of Finance and STA on March 28, 2016, advertising media agencies and outdoor advertisement business operators providing advertising services within PRC shall pay cultural development fee, which is 3% of the advertising revenue. Since July 1, 2019, in accordance with a series of notices promulgated by the Ministry of Finance and its local branches in Beijing, Zhejiang Province and Jiangsu Province regarding adjusting the relevant policies of government funds, the cultural development fee shall be reduced by 50% until December 31, 2024.

Regulation Related to M&A and Overseas Listings

The MOFCOM, the State-Owned Assets Supervision and Administration Commission, the STA, the SAIC (currently known as the State Administration for Market Regulation of the PRC, or the SAMR), the China Securities Regulatory Commission, or the CSRC, and the SAFE jointly adopted the Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A Rules. The M&A Rules require in some instances that the MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor takes

control of a PRC domestic enterprise where any of the following situations exist: (i) the transaction involves an important industry in China, (ii) the transaction may affect national economic security, or (iii) the PRC domestic enterprise has a well-known trademark or historical Chinese trade name in China. The M&A Rules, among other things, also require that (i) PRC entities or individuals obtain MOFCOM approval before they establish or control an SPV overseas, provided that they intend to use the SPV to acquire their equity interests in a PRC company at the consideration of newly issued share of the SPV, or Share Swap, and list their equity interests in the PRC company overseas by listing the SPV in an overseas market; (ii) the SPV obtains MOFCOM's approval before it acquires the equity interests held by the PRC entities or PRC individual in the PRC company by Share Swap; and (iii) the SPV obtains CSRC approval before it lists overseas.

The M&A Rules further requires that the MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor acquires control of a PRC domestic enterprise or a foreign company with substantial PRC operations, if certain thresholds under the Provisions on Thresholds for Prior Notification of Concentrations of Undertakings, issued by the State Council, are triggered. Moreover, the Anti-Monopoly Law promulgated by the Standing Committee of the NPC requires that transactions which are deemed concentrations and involve parties with specified turnover thresholds be cleared by the MOFCOM before they can be completed.

On February 17, 2023, with the approval of the State Council, the CSRC released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies, or the Overseas Listing Trial Measures, and five supporting guidelines, which came into effect on March 31, 2023. According to the Overseas Listing Trial Measures, (1) domestic companies that seek to offer or list securities overseas, both directly and indirectly, should fulfill the filing procedure and report relevant information to the CSRC; (2) if the issuer meets both of the following conditions, the overseas offering and listing shall be determined as an indirect overseas offering and listing by a domestic company: (i) any of the total assets, net assets, revenues or profits of the domestic operating entities of the issuer in the most recent accounting year accounts for more than 50% of the corresponding figure in the issuer's audited consolidated financial statements for the same period; (ii) its major operational activities are carried out in China or its main places of business are located in China, or the senior managers in charge of operation and management of the issuer are mostly Chinese citizens or are domiciled in China; and (3) where a domestic company seeks to indirectly offer and list securities in an overseas market, the issuer shall designate a major domestic operating entity responsible for all filing procedures with the CSRC, and where an issuer makes an application for initial public offering and listing in an overseas market, the issuer shall submit filings with the CSRC within three business days after such application is submitted.

On the same day, the CSRC held a press conference for the release of the Overseas Listing Trial Measures and issued the Notice on Administration for the Filing of Overseas Offering and Listing by Domestic Companies, which, among others, clarifies that (1) domestic companies that have been listed on a foreign stock exchange prior to the effective date of the Overseas Listing Trial Measures are not required to go through the filing procedure immediately but may be required to go through the filing procedure if future fund raising activities are involved; (2) a six-month transition period will be granted to domestic companies which, prior to the effective date of the Overseas Listing Trial Measures, have already obtained the approval from overseas regulatory authorities or stock exchanges (such as the completion of hearing in the market of Hong Kong or the completion of registration in the market of the United States), but have not completed the indirect overseas listing; if domestic companies fail to complete the overseas listing within such six-month transition period, they are required to file with the CSRC according to the requirements; and (3) the CSRC will solicit opinions from relevant regulatory authorities and complete the filing of the overseas listing of companies with contractual arrangements which duly meet the compliance requirements, and support the development and growth of these companies by enabling them to utilize two markets and two kinds of resources.

On February 24, 2023, the CSRC jointly with other government authorities issued the Provisions on Strengthening Confidentiality and Archives Administration of Overseas Securities Offering and Listing by Domestic Companies, or the Overseas Listing Archives Rules, as a supporting rule to the Overseas Listing Trial Measures, which came into effect on March 31, 2023. Pursuant to the Overseas Listing Archives Rules, domestic companies that seek to offer or list securities overseas directly or indirectly, and securities companies and securities related service providers providing services to such domestic companies shall establish confidentiality and archives administration system, adopt requisite measures to perform the responsibilities of confidentiality and archives administration, and shall not divulge state secrets and state agencies' work secrets, or harm state and public interests. The Overseas Listing Archives Rules provide, among others, that before providing or disclosing any document or material which involve state secrets or state agencies' work secrets, domestic companies shall apply to the competent government authorities for approval and file with the secrecy administration authorities for record.

Regulations on Anti-Monopoly

The Anti-Monopoly Law promulgated by the Standing Committee of the National People's Congress which became effective on August 1, 2008 and was last amended on June 24, 2022 and the Interim Provisions on the Review of Concentrations of Undertakings promulgated by the SAMR which became effective on December 1, 2020 and was last amended on March 24, 2022 require that transactions which are deemed concentrations and involve parties with specified turnover thresholds must be cleared by the SAMR before they can be completed. Where the participation in concentration of undertakings by way of foreign-funded merger and acquisition of domestic enterprises or any other method which involves national security, the examination of concentration of undertakings shall be carried out pursuant to the provisions of this law and examination of national security shall be carried out pursuant to the relevant provisions of the state. Failure to comply with above regulations may result in an order to stop concentration, dispose the shares/assets or transfer the operation within a stipulated period, or adopt other necessary measures to reinstate the pre-concentration status, or fines.

On February 7, 2021, the Anti-Monopoly Commission of the State Council issued the Anti-Monopoly Guidelines for the Internet Platform Economy Sector that aims to specify some of the circumstances under which an activity of internet platforms may be identified as monopolistic as well as to clarify that concentration of undertakings involving VIE structure shall also be subject to anti-monopoly review.

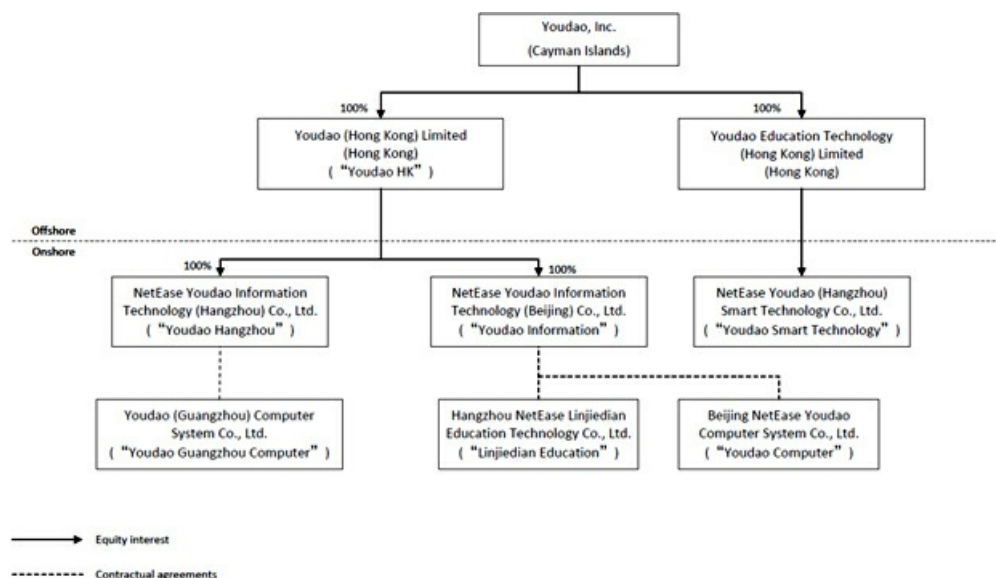
Regulations on Anti-Long-Arm Jurisdiction

The MOFCOM issued Provisions on the List of Unreliable Entities, or the MOFCOM Order No. 4 of 2020, on September 19, 2020. Pursuant to the MOFCOM Order No. 4 of 2020, the working mechanism shall, according to the investigation results and by taking the following factors into comprehensive consideration, decide whether or not to include a foreign entity concerned in the list of unreliable entities, and make an announcement on such inclusion: (i) the extent of damage caused to China's sovereignty, security and development interests; (ii) the extent of the damage to the legitimate rights and interests of Chinese enterprises, other organizations or individuals; (iii) whether or not the international economic and trade rules are followed; (iv) other factors that shall be taken into consideration. If a foreign entity is included in the list of unreliable entities, the working mechanism may decide to take one or more of the following measures: (i) restricting or prohibiting the foreign entity from engaging in import or export activities related to China; (ii) restricting or prohibiting the foreign entity's investment within the territory of China; (iii) restricting or prohibiting the entry of the foreign entity's relevant personnel or transport vehicles into the territory of China; (iv) restricting or canceling the work permit, stay or residence qualification of the foreign entity's relevant personnel in China; (v) imposing a fine corresponding to the seriousness of the case against the foreign entity; and (vi) other necessary measures.

On January 9, 2021, the MOFCOM promulgated the Rules on Counteracting Unjustified Extra-Territorial Application of Foreign Legislation and Other Measures, or the MOFCOM Order No. 1 of 2021. Pursuant to the MOFCOM Order No. 1 of 2021, where a citizen, legal person or other organization of China is prohibited or restricted by foreign legislation and other measures from engaging in normal economic, trade and related activities with a third state (or region) or its citizens, legal persons or other organizations, he/she/it shall truthfully report such matters to the competent department of commerce of the State Council within 30 days. The working mechanism will take the following factors into overall account when assessing whether there exists unjustified extra-territorial application of foreign legislation and other measures: (i) whether international law or the basic principles of international relations are violated; (ii) potential impact on China's national sovereignty, security and development interests; (iii) potential impact on the legitimate rights and interests of the citizens, legal persons or other organizations of China; (iv) other factors that shall be taken into account. If the working mechanism determines that there exists unjustified extra-territorial application of foreign legislation and other measures, MOFCOM may issue an injunction that the relevant foreign legislation and other measures shall not be accepted, executed or observed. A citizen, legal person or other organization in China may apply for exemption from compliance with an injunction.

4.C. Organizational Structure

The following chart shows our corporate structure, including our principal subsidiaries and the VIEs as of the date of this annual report.



Notes:

- (1) Youdao HK currently operates our overseas knowledge tool and related businesses, including *U-Dictionary*.
- (2) Shareholders of Linjiedian Education are William Lei Ding, our director (who is also the chief executive officer, a director and a major shareholder of NetEase, our controlling shareholder), and Feng Zhou, our Chief Executive Officer and director, each holding 99% and 1%, respectively, of Linjiedian Education's equity interests.
- (3) Shareholders of Youdao Computer are William Lei Ding, our director (who is also the chief executive officer, a director and a major shareholder of NetEase, our controlling shareholder), and Feng Zhou, our Chief Executive Officer and director, each holding approximately 71% and 29%, respectively, of Youdao Computer's equity interests.
- (4) Shareholders of Youdao Guangzhou Computer are Feng Zhou, our Chief Executive Officer and director, and Yinghui Wu, our Vice President, each holding 99% and 1%, respectively, of Youdao Guangzhou Computer's equity interests.

Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders

Current PRC laws and regulations impose certain restrictions or prohibitions on foreign ownership of companies that engage in value-added telecommunication services and certain other businesses. We are a company registered in the Cayman Islands. Youdao Information and Youdao Hangzhou, our PRC subsidiaries, are considered a foreign-invested enterprise. To comply with the foregoing restrictions imposed by PRC laws and regulations on foreign investments, we conduct a significant portion of our and the VIEs' businesses in China through Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer, the VIEs in the PRC, based on a series of contractual arrangements between us and the VIEs and their respective shareholders. As a result of these contractual arrangements, we are considered the primary beneficiary of the VIEs for accounting purposes, and consolidate their operating results in our financial statements under the U.S. GAAP, to the extent the conditions for consolidation of the VIEs under the U.S. GAAP are satisfied. In 2020, 2021 and 2022, the amount of revenues generated by the VIEs and their subsidiaries accounted for 71.0%, 68.5% and 70.1%, respectively, of our total net revenues. As a result, our ability to pay dividends depends upon dividends paid by our subsidiaries which, in turn, depends on the payment of service fees to our PRC subsidiaries by the VIEs in the PRC.

pursuant to certain contractual arrangements among our PRC subsidiaries, the VIEs and the VIEs' shareholders. In 2020, 2021 and 2022, the amount of service fees charged by our PRC subsidiaries to the VIEs was RMB1,964.8 million, RMB3,473.5 million and RMB2,767.8 million (US\$401.3 million) (without giving effect to the discontinued operation presentation of our historical financial results as a result of the disposal of our Academic AST Business), respectively. We expect that the amounts of such service fees will increase in the foreseeable future as our PRC business continues to grow.

The following is a summary of the contractual arrangements by and among Youdao Information, Youdao Computer and the shareholders of Youdao Computer. The contractual arrangements with the other VIEs and their respective shareholders, except for the cooperation agreements, are substantially similar to the corresponding contractual arrangements as discussed below. For the complete text of these contractual arrangements, please see the copies filed as exhibits to this annual report.

In the opinion of Tian Yuan Law Firm, our PRC legal counsel, save for the uncertainties disclosed in this annual report, the contractual arrangements described below are valid, binding and enforceable under current PRC law. However, our PRC legal counsel has also advised us that there are substantial uncertainties regarding the interpretation and application of current or future PRC laws and regulations. Accordingly, the PRC regulatory authorities may take a view that is contrary to the opinion of our PRC legal counsel. It is uncertain whether any new PRC laws or regulations relating to VIE structure will be adopted or if adopted, how they would affect the VIE structure. We have been further advised by our PRC legal counsel that if the PRC government authorities find that the agreements that establish the structure for operating our value-added telecommunication services and other business do not comply with PRC government restrictions on foreign investment in such businesses, we could be subject to severe penalties including being prohibited from continuing operations. Additionally, these contractual arrangements may not be as effective as equity ownership in providing us with control over the VIEs. If the VIEs or their shareholders fail to perform their respective obligations under such contractual arrangements, we could be limited in our ability to enforce such contractual arrangements in the PRC and may have to incur substantial costs and expend additional resources to enforce such arrangements. We may also have to rely on legal remedies under PRC law, including seeking specific performance or injunctive relief, and claiming damages, which we cannot assure will be effective. Additionally, the ability of our PRC subsidiaries to pay dividends to us is limited by certain PRC legal restrictions on the payment of dividends by PRC companies and foreign exchange control, among others, which prevent us from having unfettered access to our PRC subsidiaries' and VIEs' revenues. Our access to the VIEs' revenues is also limited since we do not have equity ownership in the VIEs and have to rely on the payment of service fees by the VIEs to our PRC subsidiaries. For a more detailed description of the risks related to these contractual arrangements and our corporate structure, please see "Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Corporate Structure" starting from page 38 of this annual report.

Cooperation Agreements

Youdao Computer and Youdao Information entered into a cooperation agreement, or the Youdao Computer Cooperation Agreement, on July 1, 2015. Under the Youdao Computer Cooperation Agreement, Youdao Information has agreed to provide the following services to Youdao Computer:

- the development of computer software (including, but not limited to, producing online advertisement and distribution and maintenance of software) and technical support and maintenance for computer software operation;
- the design, development, update and upgrade of platforms for online advertisement; and
- the provision of technology support, including, but not limited to, server maintenance, development of server software and related maintenance and updates.

Youdao Computer has agreed to share its monthly income (after tax and expenses) with Youdao Information in accordance with certain formulas as specified in the Youdao Computer Cooperation Agreement. The Youdao Computer Cooperation Agreement was effective from July 1, 2015 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

Linjiedian Education and Youdao Information entered into a cooperation agreement, or the Linjiedian Education Cooperation Agreement, on January 18, 2019, pursuant to which Youdao Information has agreed to provide the following services to Linjiedian Education:

- the development of computer software (including, but not limited to information management software and other technical software) and technical support and maintenance for computer software operation;
- licensing of software, trademark, domains, technical secrets and other associated intellectual property rights; and
- the provision of R&D services in relation to education courseware and teaching support services.

Linjiedian Education has agreed to share its monthly income (after tax and expenses) with Youdao Information in accordance with certain formulas as specified in the Linjiedian Education Cooperation Agreement. The Linjiedian Education Cooperation Agreement was effective from January 18, 2019 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

Youdao Guangzhou Computer and Youdao Hangzhou entered into a cooperation agreement, or the Youdao Guangzhou Computer Cooperation Agreement, on January 1, 2022, pursuant to which Youdao Hangzhou has agreed to provide the following services to Youdao Guangzhou Computer:

- the development of computer software (including, but not limited to information management software and other technical software) and technical support and maintenance for computer software operation;
- licensing of software, trademark, domains, technical secrets and other associated intellectual property rights; and
- the provision of R&D services in relation to education courseware and teaching support services.

Youdao Guangzhou Computer has agreed to share its monthly income (after tax and expenses) with Youdao Hangzhou in accordance with certain formulas as specified in the Youdao Guangzhou Computer Cooperation Agreement. The Youdao Guangzhou Computer Cooperation Agreement became effective on January 1, 2022 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

Operating Agreements

To ensure the successful performance of the various agreements between the parties, each of William Lei Ding and Feng Zhou, the shareholders of Youdao Computer, entered into an operating agreement with Youdao Computer and Youdao Information, with each agreement taking effect from September 26, 2016. Under the operating agreements, each of Youdao Computer, Mr. Ding and Dr. Zhou agreed that, except for transactions in the ordinary course of business, Youdao Computer will not enter into any transaction that would materially affect the assets, liabilities, rights or operations of Youdao Computer without the prior written consent of Youdao Information. Youdao Information also agreed that it would provide performance guarantees and, at its discretion, guarantee loans for working capital purposes to the extent required by Youdao Computer for its operations. As counter-guarantee, Youdao Computer agreed to pledge the account receivable in its operations and all of its assets to Youdao Information, which pledge has not been implemented as of the date of this annual report. Furthermore, each of Mr. Ding and Dr. Zhou agreed that, upon instruction from Youdao Information, he would appoint candidates recommended by Youdao Information as Youdao Computer's board members, president, chief financial officer and other senior executive officers. The term of each operating agreement is 20 years from the date of execution and can be extended with the written consent of Youdao Information.

Equity Pledge Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into an equity pledge agreement with Youdao Information, with each agreement taking effect from September 26, 2016. Under such equity pledge agreements, each of Mr. Ding and Dr. Zhou pledged his respective equity interest in Youdao Computer to Youdao Information to secure his obligations under the applicable loan agreement, exclusive purchase option agreement, shareholder voting right trust agreement, and operating agreement. Each of Mr. Ding and Dr. Zhou further agreed not to transfer or pledge his respective equity interest in Youdao Computer without the prior written consent of Youdao Information. Each of the equity pledge agreements will remain binding until the respective pledger, Mr. Ding or Dr. Zhou, as the case may be, discharges all his obligations under the above-mentioned agreements. As of the date of this annual report, the equity pledges under such Equity Pledge Agreements have been registered with competent PRC regulatory authority.

Exclusive Purchase Option Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into an exclusive purchase option agreement with Youdao Information and Youdao Computer, with each agreement taking effect from September 26, 2016. Under the exclusive purchase option agreements, each of Mr. Ding and Dr. Zhou granted Youdao Information an option to purchase all or a portion of his respective equity interest in Youdao Computer at a price equal to the original and any additional paid-in capital paid by him. In addition, under each exclusive purchase option agreement, Youdao Computer has granted Youdao Information an option to purchase all or a portion of the assets held by Youdao Computer or its subsidiaries at a price equal to the net book value of such assets. Each of Youdao Computer, Mr. Ding and Dr. Zhou agreed not to transfer, mortgage or permit any security interest to be created on any equity interest in or assets of Youdao Computer without the prior written consent of Youdao Information. Each exclusive purchase option agreement shall remain in effect until all of the equity interests in or assets of Youdao Computer have been acquired by Youdao Information or its designee or until Youdao Information unilaterally terminates the agreement by written notice.

Shareholder Voting Right Trust Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into a shareholder voting right trust agreement with Youdao Information, with each agreement taking effect from September 26, 2016. Under the shareholder voting right trust agreements, each of Mr. Ding and Dr. Zhou agreed to irrevocably entrust a person designated by Youdao Information to represent him to exercise all the voting rights and other shareholders' rights to which he is entitled as a shareholder of Youdao Computer. Each shareholder voting right trust agreement shall remain effective for as long as Mr. Ding or Dr. Zhou, as applicable, remains a shareholder of Youdao Computer unless Youdao Information unilaterally terminates the agreement by written notice.

Loan Agreements

Each of Mr. Ding and Dr. Zhou, the shareholders of Youdao Computer, has entered into a loan agreement with Youdao Information, with each agreement taking effect from September 26, 2016. Under these loan agreements, Youdao Information provided each of Mr. Ding and Dr. Zhou with an interest-free loan. The proceeds from the loans were used by each of Mr. Ding and Dr. Zhou to pay the consideration to acquire their respective equity interest in Youdao Computer. The loans can be repaid by transferring each of Mr. Ding's and Dr. Zhou's respective equity interest in Youdao Computer to Youdao Information or its designee or through such other method as Youdao Information shall determine. The term of each of the loan agreements is 10 years from the date of such agreement and will be automatically extended for a further 10-year term unless otherwise decided by Youdao Information.

4.D. Property, Plant and Equipment

Our current principal executive offices are located at No. 399 Wangshang Road, Binjiang District, Hangzhou 310051, China. We lease offices in Hangzhou, Beijing, Xi'an, Guangzhou, Shijiazhuang and a number of other Chinese cities with an aggregate of over 88,000 square meters. These facilities currently accommodate our management headquarters, as well as most of our sales and marketing, R&D, product and service operations, and general and administrative activities.

We lease all of the facilities that we currently occupy from the NetEase Group on arms' length terms and from other third parties. We believe that the facilities that we currently lease are adequate to meet our needs for the foreseeable future.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

You should read the following discussion together with our consolidated financial statements and the related notes included elsewhere in this annual report. This discussion contains forward-looking statements about our business and operations. Our actual results may differ materially from those we currently anticipate as a result of many factors, including those we describe under "Item 3.D. Risk Factors" and

elsewhere in this annual report.

The following includes discussion of certain of our key performance metrics for the periods indicated. See "Introduction" in this annual report for the definition of these metrics and a description of how they are calculated.

5.A. Operating Results

Overview

We operate in China's intelligent learning industry, and our financial condition and results of operations are influenced by a number of macroeconomic factors affecting this industry. These factors include China's economic growth, the continued penetration of internet and mobile services and the development of technology, all of which have allowed Chinese people to spend more on learning. Our financial condition and results of operations are also affected by a number of emerging market and technology trends, such as the integration of technology with learning and the emergence of new learning scenarios. In addition, as we generate a significant portion of our net revenues from online marketing services, our results of operations are also affected by the general factors affecting our advertisers and their advertising budgets.

We historically generated a significant portion of net revenues from tutoring services, including our Academic AST Business which mainly focused on students receiving compulsory education. We disposed of our Academic AST Business, as part of our efforts to fully comply with the new regulatory requirements adopted by the PRC government in the second half of 2021. As a result, the historical financial results of the Academic AST Business are reflected in our audited consolidated financial statements as discontinued operations accordingly. In 2020, 2021 and 2022, the net loss from discontinued operations was RMB954.3 million, RMB100.3 million and RMB6.1 million (US\$0.9 million), respectively. During the same periods, our net loss from continuing operations was RMB799.0 million, RMB926.1 million and RMB739.8 million (US\$107.3 million), respectively.

After we disposed of the Academic AST Business, we continued offering our tutoring services that has been strategically focused on STEAM, adult and vocational courses. In 2020, 2021 and 2022, our net revenues generated from tutoring services were RMB1,369.0 million, RMB2,271.0 million and RMB2,886.1 million (US\$418.4 million), representing approximately 54.2%, 56.6% and 57.6%, respectively, of our total net revenues. We expect tutoring services to continue to represent a major portion of our total net revenues. Additionally, as we focus on STEAM, adult and vocational courses, we expect the contribution from these courses to increase over time. Our ability to generate tutoring services net revenues has been and will continue to be affected by both paid user enrollments and gross billings per paid user enrollment.

In connection with our disposal of Academic AST Business, we are proactively seeking ways to empower learning with technology. We, as a leading technology-focused intelligent learning company, have substantially increased our investments in developing and upgrading smart devices. In 2020, 2021 and 2022, our net revenues generated from smart devices were RMB540.0 million, RMB980.4 million and RMB1,256.4 million (US\$182.2 million), representing approximately 21.4%, 24.4% and 25.1%, respectively, of our total net revenues. We expect the revenue contribution of smart devices to increase over time as we continuously upgrade existing and develop new smart devices. The continued success of our smart device business will depend on a variety of factors, including our ability to grow our user base, drive their engagement and loyalty, and integrate technology seamlessly with learning to deliver more engaging experience and better learning outcomes.

We have been accelerating our efforts to diversify our monetization capabilities. As part of these endeavors, we have launched education digitalization solutions targeting enterprise customers, such as elementary and secondary schools and other educational institutions. We will continue to devote resources in developing more solutions and marketing them to a broader range of customers.

The shift in our strategic focus has required, and will continue to require us to invest in recruiting technology and innovation talents, develop or acquire technologies, and sales and marketing to tap into additional markets and build new customer relationships. As a result, we expect our costs and operating expenses to continue to increase over the near to medium term. However, we expect that with these investments, we can better monetize our expertise in technology and intelligent learning, paving way for our long-term sustainable growth and profitability.

Our shift in the strategic focus will entail a number of additional risks and challenges. See "Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—The changes in our business strategies and offerings may make it difficult to evaluate our future prospects."

Impact of COVID-19

The COVID-19 pandemic has affected us in both negative and positive ways. On the one hand, as a result of the pandemic, some of our

advertising customers have experienced temporary business interruptions and a reduction in their online marketing spending, which has had a negative impact on our online advertising services. We also incurred additional costs and expenses as we implemented COVID-related safety protocols and working practices. On the other hand, we believe the COVID-19 pandemic has significantly accelerated the shift from offline to online learning approaches. This has led to increased market demand for quality online products and services and is expected to benefit our business in the long run. The pandemic has also accelerated the adoption of emerging “touchless” technologies, driving the demand for our education digitalization solutions. As China began to relax its “zero-COVID” policy at the end of 2022, most of the travel restrictions and quarantine requirements were lifted in December 2022. As a result of the policy shift, an increasing number of our sales and marketing staff, operation staff, instructors as well as our users were infected with COVID-19 in the following months, which significantly affected the sales of our services and products in December 2022 and the first quarter of 2023. Nevertheless, we do not believe the COVID-19 pandemic has had a material adverse impact on our overall business, results of operations, liquidity, financial condition and growth prospects. Continuance or recurrence of the COVID-19 outbreak in China or other parts of the world may materially and adversely affect our business operations. Please see “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Business and Industry—We face risks related to natural disasters, extreme weather conditions, health epidemics, such as the outbreak of COVID-19, and other catastrophic incidents, which could significantly disrupt our operations.”

Key Components of Results of Operations

Net Revenues

We have three reportable segments: (i) learning services, (ii) smart devices, and (iii) online marketing services. We identify our reportable segments based on the organizational units used by management to monitor performance and make operating decisions. See our consolidated financial statements included elsewhere in this annual report for additional information regarding our three reportable segments.

The following table sets forth a breakdown of our net revenues, in absolute amounts and as percentages of total net revenues, for the periods indicated.

	For the Year Ended December 31,						
	2020		2021		2022		
	RMB	%	RMB	%	RMB	US\$	
	(in thousands, except for percentages)						
Net Revenues							
Learning services	1,513,960	59.9	2,441,421	60.8	3,084,375	447,192	61.5
Smart devices	539,962	21.4	980,424	24.4	1,256,446	182,168	25.1
Online marketing services	472,884	18.7	593,949	14.8	672,361	97,483	13.4
Total net revenues	2,526,806	100.0	4,015,794	100.0	5,013,182	726,843	100.0

Learning services. We generate the majority of the net revenues of learning services from our tutoring services. For avoidance of doubt, we define our tutoring services to mainly include our existing online courses and digital learning contents. In 2020, 2021 and 2022, the net revenues generated from tutoring services were RMB1,369.0 million, RMB2,271.0 million and RMB2,886.1 million (US\$418.4 million), respectively, accounting for the vast majority of the total net revenues of our learning services.

The tuition fees from the sales of our courses are initially recorded as deferred revenue and are recognized proportionally over an average of the learning periods of different tutoring courses. The learning period of a course refers to the period during which the course is delivered plus the estimated period following the completion of the course during which the customers view playback of the course recordings. The learning periods of our tutoring courses mainly range from one month to twelve months. For the proceeds from the sales of our digital learning contents, they are initially recorded as deferred revenues as well and are recognized as revenues when the performance obligation is satisfied upon the time of delivery. As of December 31, 2020, 2021 and 2022, we had deferred revenue of RMB809.8 million, RMB973.9 million and RMB978.6 million (US\$141.9 million), respectively, from our tutoring services.

In addition to tutoring services, we also generate net revenues from other learning services which are primarily fee-based premium services. These services mainly include: (a) the licensing of technologies and solutions, including through *Youdao Smart Cloud*, to business customers and (b) sales of subscription packages to users of our online knowledge tools, such as *Youdao Dictionary*, that allow them to access additional functions, content and privileges.

Smart devices. We generate net revenues from sales of smart devices, which currently mainly include *Youdao Dictionary Pen* and *Youdao Listening Pod*. In 2020, 2021 and 2022, the net revenues generated from smart devices were RMB540.0 million, RMB980.4 million and RMB1,256.4 million (US\$182.2 million), respectively, which was primarily attributable to the significant increase in sales volume of *Youdao Dictionary Pen* and *Youdao Listening Pod* due to its growing popularity.

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Online marketing services. We generate net revenues of online marketing services through the provision of different formats of advertisement, including but not limited to banners, text links, videos, logos, buttons and rich media. Most of our online marketing services are advertising solutions based on performance-based pricing, including those charged on a cost-per-click, or CPC, basis. In 2020, 2021 and 2022, we generated 74.9%, 80.2% and 83.2%, respectively, of the net revenues of our online marketing services from performance-based advertising services. We also offer brand advertising services, which are focused on building advertisers' brand awareness and presence through their logos and other visual aspects. Our brand advertising services are typically charged as a fixed amount of advertising fees based on the duration of the placement.

We use the number of performance-based advertisers as a key performance metric for our online marketing services segment given that the revenues generated from performance-based advertising services have historically accounted for a significant majority of our online marketing revenues. In 2020, 2021 and 2022, we had approximately 1,500, 1,300 and 1,000 performance-based advertisers, respectively. We also monitor average total MAUs as an indirect performance metric for our online marketing services segment as we consider it to be a driving factor for the attractiveness of our online marketing services.

Cost of revenues

Our cost of revenues of learning services consists primarily of (i) costs associated with our full-time teaching staff and service operations personnel, mainly including the salaries and other benefits paid to our instructors and teaching assistants and the fees paid to certain of our instructors pursuant to revenue sharing arrangements; (ii) payment channel fees charged by third-party online payment providers; (iii) costs of course materials, such as textbooks and exercise books, that we distribute to students of our tutoring services; and (iv) technical support costs.

Our cost of revenues of smart devices consists primarily of (i) costs relating to the sales of our smart devices and (ii) costs associated with our operation staff related to smart devices.

Our cost of revenues of online marketing services consists primarily of (i) traffic acquisition costs, which consist primarily of payments to third parties that distribute our advertisers' advertisements through such third parties' internet properties; and (ii) payroll-related expenses, which consist primarily of the salaries and other benefits paid to our operation personnel that support our online marketing services.

The following table sets forth a breakdown of our cost of revenues, in absolute amounts and as percentages of total cost of revenues and as percentages of the total net revenues, for the periods indicated.

	For the Year Ended December 31,									
	2020			2021			2022			
		% of total cost of revenues	% of total net revenues		% of total cost of revenues	% of total net revenues			% of total cost of revenues	% of total net revenues
	RMB			RMB			RMB	US\$		
	(in thousands, except for percentages)									
Cost of revenues										
Learning services	716,504	50.5	28.4	980,700	48.4	24.5	1,172,703	170,025	48.3	23.4
Smart devices	355,970	25.1	14.1	618,925	30.5	15.4	765,641	111,008	31.5	15.3
Online marketing services	346,895	24.4	13.7	427,331	21.1	10.6	488,422	70,815	20.2	9.7
Total cost of revenues	1,419,369	100.0	56.2	2,026,956	100.0	50.5	2,426,766	351,848	100.0	48.4

Gross profit

We recorded gross profit of RMB1,107.4 million, RMB1,988.8 million and RMB2,586.4 million (US\$375.0 million), respectively, in 2020, 2021 and 2022.

In 2020, 2021 and 2022, our overall gross margin was 43.8 %, 49.5% and 51.6%, respectively. During the same periods, the gross

margin of learning services was 52.7%, 59.8% and 62.0%, respectively, the gross margin of smart devices was 34.1%, 36.9% and 39.1%, respectively, and the gross margin of online marketing services was 26.6%, 28.1% and 27.4%, respectively. Historically, we made substantial investments in building our faculty and expanding our tutoring service offerings. As our tutoring service offerings continue to grow and as we attract more users, we expect that we will be able to optimize our faculty's compensation structure and achieve greater economies of scale in respect of course development.

Operating expenses

The following table sets forth a breakdown of our operating expenses, in absolute amounts and as percentages of total operating expenses and as percentages of the total net revenues, for the periods indicated.

	For the Year Ended December 31,									
	2020			2021			2022			
		% of total operating expenses	% of total net revenues		% of total operating expenses	% of total net revenues			% of total operating expenses	% of total net revenues
	RMB			RMB			RMB	US\$		
	(in thousands, except for percentages)									
Operating expenses										
Sales and marketing expenses	1,473,604	75.2	58.3	2,077,638	70.9	51.7	2,328,095	337,542	69.3	46.4
Research and development expenses	372,184	19.0	14.7	607,373	20.7	15.1	803,791	116,538	23.9	16.0
General and administrative expenses	113,106	5.8	4.5	190,297	6.5	4.7	229,210	33,232	6.8	4.6
Impairment of intangible assets from business combination	—	—	—	56,778	1.9	1.4	—	—	—	—
Total operating expenses	1,958,894	100.0	77.5	2,932,086	100.0	72.9	3,361,096	487,312	100.0	67.0

Sales and marketing expenses. Our sales and marketing expenses consist primarily of (i) expenses relating to our marketing and branding activities, including expenses relating to our online traffic acquisition channels; (ii) payroll-related expenses, which consist primarily of the salaries and other benefits paid to our sales and marketing personnel; and (iii) the amounts we pay to third-party service providers to whom we outsource certain of our sales and marketing functions. We expect our sales and marketing expenses to increase in absolute amounts in the near future as we continue to expand our smart device business and other business lines, partially offset by the reduced sales and marketing spending in response to the recent regulatory requirement. Nevertheless, we expect our sales and marketing expenses to decrease as a percentage of revenue over time in the long run due to our increased economies of scale.

Research and development expenses. Our research and development expenses consist primarily of (i) payroll-related expenses, which primarily include the salaries and other benefits paid to our R&D and related personnel; (ii) fees paid to outside vendors for their software testing and other services; and (iii) rentals of premises occupied by our R&D and related personnel. We expect our research and development expenses to increase in the foreseeable future as we continue to invest substantially in technology to enhance our users' and students' learning experience.

General and administrative expenses. Our general and administrative expenses consist primarily of (i) payroll-related expenses, which primarily include the salaries and other benefits paid to our management and administrative personnel; (ii) fees paid to third-party professional service providers; and (iii) credit losses allowance provided on the receivables. We expect our general and administrative expenses to increase in the foreseeable future as we incur additional costs as a result of operating as a public company.

Impairment of intangible assets from business combination. Our impairment of intangible assets from business combination primarily reflects the impairment of the intangible assets related to a subsidiary acquired.

Taxation

We had income tax expense of RMB2.9 million, RMB6.6 million and RMB13.8 million (US\$2.0 million) in 2020, 2021 and 2022, respectively. We are subject to various rates of income tax in different jurisdictions. The following summarizes major factors affecting our

applicable tax rates in the Cayman Islands, Hong Kong and the PRC.

Cayman Islands

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty.

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There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duties, which may be applicable on instruments executed in, or brought within the jurisdiction of the Cayman Islands. In addition, the Cayman Islands does not impose withholding tax on dividend payments.

Hong Kong

Our subsidiaries incorporated in Hong Kong were subject to Hong Kong profits tax at a rate of 16.5% for taxable income earned in Hong Kong before April 1, 2018. Starting from the financial year commencing on April 1, 2018, the two-tiered profits tax regime took effect, under which the tax rate is 8.25% for assessable profits on the first HK\$2 million and 16.5% for any assessable profits in excess of HK\$2 million.

PRC

Our subsidiaries, the VIEs and their subsidiaries, in China are companies incorporated under PRC law and, as such, are subject to PRC enterprise income tax on their taxable income in accordance with the relevant PRC income tax laws. Pursuant to the PRC EIT Law, which became effective on January 1, 2008, a uniform 25% enterprise income tax rate is generally applicable to both foreign-invested enterprises and domestic enterprises, except where a special preferential rate applies. Entities qualifying as High and New Technology Enterprises ("HNTE") qualify for a preferential tax rate of 15% subject to a requirement that they re-apply for HNTE status every three years. Youdao Information was qualified as an HNTE in 2015 initially, which was extended in 2018 and 2021, and was subject to a preferential tax rate of 15% since 2015. Beijing Lingshi Ruifeng Education Technology Co., Ltd. was qualified as an HNTE and hence subject to a preferential tax rate of 15% since 2020. Youdao Hangzhou was qualified as an HNTE and hence subject to a preferential tax rate of 15% since 2022. As of December 31, 2022, the entities mentioned above were all in accumulative loss status. The enterprise income tax is calculated based on the entities' global income as determined under PRC tax laws and accounting standards.

Pursuant to the applicable PRC provision regulations and corresponding implementation rules on VAT, our major subsidiaries and the VIEs are generally subject to VAT at a rate of 6% for services rendered, 13% for sales of general goods and 9% for sales of electronic publications. Since January 2020, in accordance with the Announcement on Tax Policies to Support Prevention and Control of COVID-19 issued by the Ministry of Finance and STA, the Announcement on the Period of Implementation of Tax Policies to Support Epidemic Prevention and Control and to Ensure Supply and the Announcement on Continued Implementation of Some Preferential Tax Policies Responding to COVID-19 Epidemic (collectively, the "Tax Policies"), due to the COVID-19, the VAT from providing daily life services was exempted starting on January 1, 2020 and ending on March 31, 2021. In 2020 and 2021, we recognized gain of RMB51.9 million and loss of RMB5.4 million, respectively, in others, net arising from the VAT exemption according to the Tax Policies. We are also subject to a cultural development fee on the provision of advertising services in China with an applicable rate of 3% based on the advertising revenue and subject to a 50% reduction which became effective from July 1, 2019. The cultural development fee on the provision of advertising services is exempted starting on January 1, 2020 until December 31, 2021 according to the Announcement on Tax and Fee Policies to Support the Film and Other Industries issued by the Ministry of Finance and STA on May 13, 2020 and the Announcement of the Ministry of Finance and the State Taxation Administration on the Renewal of the Implementation of Some Tax Preferences in Response to the Epidemic (Announcement of the Ministry of Finance and the State Taxation Administration No. 7 of 2021) due to the outbreak of COVID-19.

As a Cayman Islands holding company, we may receive dividends from our PRC subsidiaries through Youdao HK. The PRC EIT Law and its implementing rules provide that dividends paid by a PRC entity to a non-resident enterprise for income tax purposes is subject to PRC withholding tax at a rate of 10%, subject to reduction by an applicable tax treaty with China. Pursuant to the Arrangement between Mainland China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and Tax Evasion on Income, the withholding tax rate in respect to the payment of dividends by a PRC enterprise to a Hong Kong enterprise may be reduced to 5% from a standard rate of 10% if the Hong Kong enterprise directly holds at least 25% of the PRC enterprise and certain other conditions are met. Pursuant to the Notice of the State Taxation Administration on the Issues concerning the Application of the Dividend Clauses of Tax Agreements, or STA Circular 81, a Hong Kong resident enterprise must meet the following conditions, among others, in order to apply the reduced withholding tax rate: (i) it must be a company; (ii) it must directly own the required percentage of equity interests and voting rights in the PRC resident enterprise; and (iii) it must have directly owned such required percentage in the PRC resident enterprise throughout the 12 months prior to receiving the dividends. The STA promulgated the Administrative Measures for Non-resident Taxpayers to Enjoy Treatment under Treaties, or STA Circular 35, which became effective on January 1, 2020. STA Circular 35 provides that non-resident enterprises are not required to obtain pre-approval from the relevant tax authority in order to enjoy the reduced withholding tax. Instead, non-resident enterprises and their withholding agents may, by self-assessment and on confirmation that the prescribed criteria to enjoy the tax treaty benefits are met, directly

apply the reduced withholding tax rate, and file necessary forms and supporting documents when performing tax filings, which will be subject to post-tax filing examinations by the relevant tax authorities. Accordingly, Youdao HK may be able to benefit from the 5% withholding tax rate for the dividends it receives from its PRC subsidiaries if it satisfies the conditions prescribed under STA Circular 81 and other relevant tax rules and regulations. However, according to STA Circular 81 and STA Circular 35, if the relevant tax authorities consider the transactions or arrangements we have are for the primary purpose of enjoying a favorable tax treatment, the relevant tax authorities may adjust the favorable withholding tax in the future.

If our holding company in the Cayman Islands or any of our subsidiaries outside of China were deemed to be a “resident enterprise” under the PRC EIT Law, it would be subject to enterprise income tax on its worldwide income at a rate of 25%. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders.”

Critical Accounting Policies and Judgments

We prepare our financial statements in accordance with U.S. GAAP, which requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent liabilities at the balance sheet dates and the reported revenues and expenses during the reported periods in the consolidated statements. We continually evaluate these judgments and estimates based on our own historical experience, knowledge and assessment of current business and other conditions, our expectations regarding the future based on available information and assumptions that we believe to be reasonable, which together form our basis for making judgments about matters that are not readily apparent from other sources. Since the use of estimates is an integral component of the financial reporting process, our actual results could differ from those estimates. Some of our accounting policies require a higher degree of judgment than others in their application.

The selection of critical accounting policies, the judgments and other uncertainties affecting application of those policies and the sensitivity of reported results to changes in conditions and assumptions are factors that should be considered when reviewing our financial statements. We believe the following accounting policies involve the most significant judgments and estimates used in the preparation of our financial statements. You should read the following description of critical accounting policies, judgments and estimates in conjunction with our consolidated financial statements and other disclosures included in this annual report.

Basis of Presentation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”). Significant accounting policies followed in the preparation of the accompanying consolidated financial statements are summarized below.

Discontinued Operation

We report a disposal of our component or a group of our components as discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on our operations and financial results. Classification as a discontinued operation occurs upon disposal or when the operation meets the criteria to be classified as held for sale, if earlier. In the period that a discontinued operation is classified as held for sale, the assets and liabilities of the discontinued operation are presented separately in asset and liability sections, respectively, of the consolidated balance sheets and prior periods are presented on a comparative basis. In the consolidated statements of operations and comprehensive loss, the results from discontinued operations are reported separately from the income and expenses from continuing operations and prior periods are presented on a comparative basis. Cash flows for discontinued operations are presented separately in the consolidated statements of cash flows.

Principles of consolidation

Subsidiaries are those entities in which we, directly or indirectly, control more than one half of the voting power, have the power to appoint or remove the majority of the members of the board of directors, or to cast a majority of votes at the meeting of the board of directors, or have the power to govern the financial and operating policies of the investee under a statute or agreement among the shareholders or equity holders.

A consolidated VIE is an entity in which we, or any of our subsidiaries, through contractual arrangements, have the power to direct the activities that most significantly impact the entity’s economic performance, bear the risks of and enjoy the rewards normally associated with ownership of the entity, and therefore we or our subsidiary is the primary beneficiary of the entity.

All significant intercompany balances and transactions within the group have been eliminated upon consolidation.

Revenue Recognition

We adopted ASC 606, *Revenue from Contracts with Customers* (“ASC 606”), for all periods presented. According to ASC 606, revenues from contracts with customers are recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services, reduced by estimates for return allowances, promotional discounts, rebates and value-added tax (“VAT”).

Learning services

Tutoring services

Our tutoring services are delivered in live-streaming or prerecorded courses or digital learning content format. With respect to our live-streaming courses, when the delivery of the course is completed, we also provide the customers with “playback services” that give them unlimited access to recordings of the course within a specified period of time. The live-streaming of the course and the playback services, as well as other teaching activities associated with the course, are highly interdependent and interrelated in the context of the contract and are only considered accessory services to the online live-streaming courses and therefore are not distinct and are not sold stand-alone. As a result, a live-streaming course is accounted for as a single performance obligation which is satisfied over its learning period. The learning period of a live-streaming course refers to the period during which the course is delivered plus the estimated period following the completion of the course during which the customers view playback of the course recordings. The revenues generated from our live-streaming courses are recognized ratably over an average of the learning periods of our live-streaming courses. We consider the average length of period during which customers typically spend time on viewing the courses, as well as other learning behavior patterns, to arrive at the best estimates for the length of the period during the customers’ view playback of the course recordings. With respect to a pre-recorded course, the learning period refers to the estimated period during which the course is viewed by customers. The net revenues generated from our prerecorded courses are recognized ratably over an average of the learning periods of such courses.

With respect to our digital learning contents, they are delivered together with online live streaming courses and customized planning services. The customers can either stream the digital learning contents online or download and watch them offline. The downloadable digital learning contents, streaming services, online live streaming courses and customized planning services are considered distinct performance obligations in the contract. The transaction price is generally collected in advance and allocated to each performance obligation in the contract based on the relevant standalone selling prices. We recognize the revenues of downloadable digital learning contents as the performance obligation is satisfied upon the time of delivery and recognize the revenues of streaming services and customized planning services ratably over the service period. For online live streaming courses, the revenues are recognized ratably over the estimated average learning period.

The estimated weighted average duration of learning periods for both live-streaming courses and pre-recorded courses ranged from four to six months for the periods presented.

There is a refund policy provided to customers for tutoring services, depending on whether the course had commenced at the time of the refund request, the length of the course, the number of sessions that the customer has taken, among other criteria. See “Item 4. Information for the Company—4.B. Business Overview—How We Generate Revenues—Tuition fees” for more information about our refund policy. We determine the transaction price to be earned by estimating the refund liability based on historical refund ratio on a portfolio basis using the expected value method. In the event that the actual amount of refund made exceeds our estimates, such excessive amount will be deducted from net revenues. We also provide discount coupons to our customers for use in purchases on tutoring services, which are treated as a reduction of revenue when the related transaction is recognized.

Fee-based premium services

Fee-based premium services revenues, mostly operated on either a consumption basis or a monthly subscription basis, are derived principally from providing premium services of *Youdao Dictionary*, *Youdao Smart Cloud*, as well as translation services. Prepaid subscription fees collected from customers are deferred and are recognized as revenue on a straight-line basis by us over the subscription period, during which customers can access the premium services provided by us. Fees collected from customer to purchase translation services are recognized as revenue when related services are rendered. We also provide our customers the access to smart cloud system, through which customers could use automatic scanning, image recognition and speech recognition services. We recognize the revenues related to smart cloud services based on a consumption basis or ratably over the service period.

Smart devices

We sell smart devices such as dictionary pens and translation devices to customers through retailers or distributors. We recognize revenues when control of the goods is transferred to the customer, which generally occurs upon the delivery to the end customers or upon the delivery to distributors.

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Along with certain tutoring services, we also provide smart devices such as smart pens to facilitate customers' learnings. For such situations, we have determined that the smart devices are a separate performance obligation under ASC 606, as customers can benefit from smart devices on their own and our promises to deliver smart devices are separately identifiable from tutoring services. We determine stand-alone selling price to each performance obligation in the approach of expected cost-plus margin. Revenue from smart devices is recognized when they are delivered to customers.

Online marketing services

We derive our online marketing revenues principally from short-term contracts. The online marketing services with display period, the contracts may consist of multiple performance obligations with a typical term of less than three months. Each performance obligation generally represents different formats of advertisement, including but not limited to banners, text-links, videos, logos, buttons and rich media. Under arrangements where we have multiple performance obligations, the transaction price is allocated to each performance obligation using the relative stand-alone selling price. We generally determine stand-alone selling prices based on the prices charged to customers. If the performance obligation has not been sold separately, we estimate the stand-alone selling price by taking into consideration the pricing for advertising areas of our platform with similar popularities, advertisements with similar formats, quoted prices from competitors as well as other market conditions. The amount of consideration allocated to each performance obligation is recognized as revenue over the individual advertisement display period, on a straight-line basis, which is usually within three months.

We also enter into cost-per-click, or CPC, advertising arrangements with customers, under which we recognize revenues based on the number of actions completed resulted from the advertisements, including but not limited to when users click on links. We provide a technology-enhanced advertising solution to advertisers, including advising advertisers to optimize delivery strategies, choose delivery channels and spaces, select key words, etc. These advertising planning services are not distinct and not considered separate performance obligations, but rather part of the advertising performance obligations.

Our online marketing services expand distribution of advertisers' promotional links and advertisements by leveraging traffic on third parties' internet properties, including web content, software, and mobile applications. We are the primary obligor to our advertisers as we are primarily responsible to the customers, bear inventory risk and have the discretion in establishing pricing. Payments made to operators of third-party internet properties are included in the traffic acquisition costs.

Certain customers may receive volume rebates, which are accounted for as variable consideration. We estimate annual expected revenue volume with reference to their historical results and reduce revenues recognized.

Practical expedients

We have used the following practical expedients as allowed under ASC 606:

- (i) The effects of a significant financing component have not been adjusted for contracts for which we expect, at contract inception, that the period between when we transfer a promised good or service to the customer and when the customer pays for that good or service will be one year or less.
- (ii) We applied the portfolio approach in determining the learning period for the customer given that the effect of applying a portfolio approach to a group of students' behaviors would not differ materially from considering each one of them individually.

Contract liabilities

Contract liabilities refer to the deferred revenue and refund liability. Deferred revenue relates to the learning tuition, online marketing services and fee-based premium services with fees received from customers for which our revenue recognition criteria have not been met. Refund liability represents the consideration collected by us which we expect to refund to our customers according to refund policy.

Receivables, net

We closely monitor the collection of our receivables and record a reserve for doubtful accounts against aged accounts and for

specifically identified non-recoverable amounts for periods prior to January 1, 2020. If the economic situation and the financial condition of the customer deteriorate resulting in an impairment of the customer's ability to make payments, additional allowances might be required. Receivable balances are written off when they are determined to be uncollectible. From January 1, 2020, our receivables are subject to the measurement of credit losses within the scope of ASC 326. To estimate expected credit losses, we have identified the relevant risk characteristics of our customers and the related receivables and other receivables which include size, type of the services or the products we provide, or a combination of these characteristics. Receivables with similar risk characteristics have been grouped into pools. For each pool, we consider the past collection experience, current economic conditions, future economic conditions (external data and macroeconomic factors) and changes in our customer collection trends. This is assessed at each quarter based on our specific facts and circumstances.

Restricted cash

Restricted cash represents cash deposits for the upfront tuition fee in the government custodian account required by the PRC government authorities.

Business combinations

We account for our business combination using the acquisition method of accounting in accordance with ASC 805, *Business Combinations*. The cost of an acquisition is measured as the aggregate of the acquisition date fair values of the assets transferred and liabilities assumed by us to the sellers and equity instruments issued. Transaction costs directly attributable to the acquisition are expensed as incurred. Identifiable assets and liabilities acquired or assumed are measured separately at their fair values as of the acquisition date, irrespective of the extent of any noncontrolling interests. The excess of (i) the total costs of acquisition, fair value of the noncontrolling interests and acquisition date fair value of any previously held equity interest in the acquiree over (ii) the fair value of the identifiable net assets of the acquiree is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in the consolidated statements of operations and comprehensive loss. During the measurement period, which can be up to one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded on the consolidated statements of operations and comprehensive loss.

If a business combination is under common control, the acquired assets and liabilities are recognized at their historical book value. The consolidated financial statements include the results of the acquired entities from the earliest date presented or, if more recent, from the date when the entities first came under common control, regardless of the date of the combination. Consolidated financial statements for prior years would also be retrospectively adjusted for periods during which the entities were under common control.

In a business combination achieved in stages, we remeasure our previously held equity interest in the acquiree immediately before obtaining control at its acquisition-date fair value and the re-measurement gain or loss, if any, is recognized in others, net in the consolidated statements of operations and comprehensive loss.

The determination and allocation of fair values to the identifiable assets acquired, liabilities assumed and noncontrolling interests is based on various assumptions and valuation methodologies requiring considerable judgment from management. The most significant variables in these valuations are discount rates, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. We determine discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons.

Goodwill

Goodwill represents the excess of the purchase consideration over the fair value of the identifiable assets acquired and the liabilities assumed in business combination.

Goodwill is not amortized but is tested for impairment at the reporting unit level on an annual basis by the end of year, and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Under ASC 350-20-35, we have the option to choose whether we will apply the qualitative assessment first and then the quantitative assessment, if necessary, or to apply the quantitative assessment directly. We will perform the quantitative impairment test if we bypasses the qualitative assessment, or based on the qualitative assessment, if it is more likely than not that the fair value of the reporting unit is less than its carrying amount. The quantitative impairment test is comparing the fair value of the reporting unit with its carrying amount. If the fair value of the reporting unit exceeds its carrying amount, goodwill is not impaired. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Application of a goodwill impairment test requires significant management judgment, including the identification of reporting units, assigning assets and liabilities to reporting units, assigning goodwill to reporting units, and determining the fair value of each reporting unit. The judgment in estimating the fair value of reporting units includes estimating future cash flows, determining appropriate discount rates and making other assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit. No impairment charge of goodwill was recognized in 2020, 2021 or 2022, respectively.

Impairment of long-lived assets

Long-lived assets are evaluated for impairment whenever events or changes in circumstances (such as a significant adverse change to market conditions that will affect the future use of the assets) indicate that the carrying value of an asset may not be fully recoverable or that the useful life is shorter than we had originally estimated. When these events occur, we evaluate the impairment for the long-lived assets by comparing the carrying value of the assets to an estimate of future undiscounted cash flows expected to be generated from the use of the assets and their eventual disposition. If the sum of the expected future undiscounted cash flows is less than the carrying value of the assets, we recognize an impairment loss based on the excess of the carrying value of the assets over the fair value of the assets. We recognized impairment losses on intangible assets from business combination of RMB56.8 million in 2021. No impairment loss on intangible assets was recognized in 2020 or 2022.

Share-based compensation

We grant options to our employees, directors and consultants with performance conditions and service conditions. In accordance with ASC 718, *Compensation-Stock Compensation*, we determine grants of options to directors, employees and consultants, which are classified as equity awards and are measured at the grant date based on the fair value of the awards.

We adopt the binomial option pricing model to determine the fair value of stock options. The determination of the fair value of stock options is affected by the fair value of ordinary shares as well as assumptions regarding a number of complex and subjective variables, including the expected share price volatility, actual and projected employee share option exercise behavior, risk-free interest rates and expected dividends. The market price of our publicly traded ADSs is used as an indicator of fair value of ordinary shares for purposes of recording share-based compensation expenses. Share-based compensation expenses for share options granted with service conditions are recorded net of estimated forfeitures using a graded-vesting method during the service period requirement, such that expenses are recorded only for those share-based awards that are expected to ultimately vest.

We also recognize compensation expenses on restricted share units, or RSUs, granted by NetEase to our employees. RSUs are measured based on the fair market value of the underlying stock on the dates of grant. Share-based compensation expenses related are then recorded for the number of RSUs expected to vest on a graded-vesting basis, net of estimated forfeitures, over the requisite service period.

Youdao 2015 Share Incentive Plan

We adopted an employee share incentive plan, or the 2015 Plan, in February 2015, as may be amended, restated and/or supplemented from time to time. The 2015 Plan was amended in April 2018. For key terms of the 2015 Plan, see “Item 6. Directors, Senior Management and Employees—6.B. Compensation—Share Incentive Plan.”

The fair value of each option granted pursuant to the 2015 Plan in 2020, 2021 and 2022 is estimated on the date of grant using the following assumptions:

	For the Year Ended December 31,		
	2020	2021	2022
Expected volatility	48.90%-52.20%	52.40%-62.40%	74.30%-95.00%
Expected dividends yield	0%	0%	0%
Risk-free interest rate	0.30%-1.69%	0.58%-0.87%	1.74%-2.70%
Expected term (in years)	6	6	6
Fair value of underlying ordinary share (US\$)	16.00-42.31	9.44-35.99	4.25-13.02

The expected volatility at the grant date and each option valuation date was estimated based on the annualized standard deviation of the daily return embedded in historical share prices of comparable peer companies with a time horizon close to the expected expiry of the term of the options. We have not declared or paid any cash dividends on our capital stock, and we do not anticipate any dividend payments in the foreseeable future. The expected term is the contract life of the options. We estimated the risk-free interest rate based on the yield to maturity of U.S. treasury bonds denominated in U.S. dollars at the option valuation date.

For the purpose of determining the estimated fair value of our share options, we believe the expected volatility and the estimated fair value of our ordinary shares are the most critical assumptions. Changes in these assumptions could significantly affect the fair value of share options and hence the amount of stock-based compensation we recognize in our consolidated financial statements. Since we did not have a trading history for our shares sufficient to calculate our own historical volatility, the expected volatility of our future ordinary share price was estimated based on the price volatility of the shares of comparable public companies that operate in the same or similar business.

NetEase's RSU Plan

In November 2009, NetEase adopted a restricted share units plan for NetEase's employees, directors and consultants, or the 2009 RSU Plan. NetEase recognizes share-based compensation expenses in its consolidated statements of operations and comprehensive income based on awards ultimately expected to vest, after considering estimated forfeitures. The NetEase's RSU Plan became effective on November 17, 2009 for a term of 10 years unless sooner terminated. The 2009 RSU Plan expired on November 16, 2019 in accordance with its terms. The board of NetEase approved 2019 Restricted Share Unit Plan, or the 2019 RSU Plan, in October 2019, as a replacement for the 2009 RSU Plan. Forfeitures are estimated based on the NetEase's historical experience over the last five years and revised in subsequent periods if actual forfeitures differ from those estimates.

Income taxes

Current income taxes are provided on the basis of income/(loss) for financial reporting purposes, adjusted for income and expense items which are not assessable or deductible for income tax purposes, in accordance with the regulations of the relevant tax jurisdictions. Deferred income taxes are provided using the liability method. Under this method, deferred income taxes are recognized for the tax consequences of temporary differences by applying enacted statutory rates applicable to future years to differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities. The tax base of an asset or liability is the amount attributed to that asset or liability for tax purposes. The effect on deferred taxes of a change in tax rates is recognized in the consolidated statements of operations and comprehensive loss in the period of change. A valuation allowance is provided to reduce the amount of deferred tax assets if it is considered more likely than not that some portion of, or all of the deferred tax assets will not be realized.

Uncertain tax positions

In order to assess uncertain tax positions, we apply a more likely than not threshold and a two-step approach for the tax position measurement and financial statement recognition. Under the two-step approach, the first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not, that the position will be sustained, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. We recognize interest and penalties, if any, under accrued expenses and other current liabilities on our consolidated balance sheets and under other expenses in our consolidated statements of operations and comprehensive loss. We did not have any significant unrecognized uncertain tax positions as of and for the years ended December 31, 2020, 2021 and 2022, nor did we recognize any related interest and penalties.

Treasury stock

We account for repurchased ordinary shares under the cost method and include such treasury stock as a component of the common shareholders' equity. Cancellation of treasury stock is recorded as a reduction of ordinary shares, additional paid-in-capital and retained earnings, as applicable. An excess of purchase price over par value is allocated to additional paid-in-capital first with any remaining excess charged entirely to retained earnings. The cost of treasury stock reissued is determined using the weighted average method and recorded as a reduction of additional paid-in-capital.

Results of Operations

The following table summarizes our consolidated results of operations both in absolute amounts and as percentages of our total revenues for the years presented. This information should be read together with our consolidated financial statements and related notes included elsewhere in this annual report. The operating results in any period are not necessarily indicative of the results that may be expected for any future period.

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We disposed of our Academic AST Business as part of our efforts to fully comply with the new regulatory requirements adopted by the PRC government in the second half of 2021. As a result, the historical results of Academic AST Business have been reflected in our audited consolidated financial statements as discontinued operations accordingly. Unless otherwise stated, the financial information and non-GAAP financial information disclosed in this annual report refer to our continuing operations.

	For the Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	RMB	US\$
	(in thousands, except for percentages, shares and per share/ADS data)					
Net revenues	2,526,806	100.0	4,015,794	100.0	5,013,182	726,843
Cost of revenues ⁽¹⁾	(1,419,369)	(56.2)	(2,026,956)	(50.5)	(2,426,766)	(351,848)
Gross profit	1,107,437	43.8	1,988,838	49.5	2,586,416	374,995
Operating expenses						
Sales and marketing expenses ⁽¹⁾	(1,473,604)	(58.3)	(2,077,638)	(51.7)	(2,328,095)	(337,542)
Research and development expenses ⁽¹⁾	(372,184)	(14.7)	(607,373)	(15.1)	(803,791)	(116,538)
General and administrative expenses ⁽¹⁾	(113,106)	(4.5)	(190,297)	(4.7)	(229,210)	(33,232)
Impairment of intangible assets from business combination	—	—	(56,778)	(1.4)	—	—
Total operating expenses	(1,958,894)	(77.5)	(2,932,086)	(72.9)	(3,361,096)	(487,312)
Loss from operations	(851,457)	(33.7)	(943,248)	(23.4)	(774,680)	(112,317)
Interest income	25,524	1.0	18,780	0.5	12,908	1,871
Interest expense	(31,215)	(1.2)	(31,644)	(0.8)	(45,607)	(6,612)
Others, net	61,052	2.4	36,673	0.9	81,445	11,808
Loss before tax	(796,096)	(31.5)	(919,439)	(22.8)	(725,934)	(105,250)
Income tax expenses	(2,929)	(0.1)	(6,648)	(0.2)	(13,844)	(2,007)
Net loss from continuing operations	(799,025)	(31.6)	(926,087)	(23.0)	(739,778)	(107,257)
Net loss from discontinued operations	(954,327)	(37.8)	(100,267)	(2.6)	(6,105)	(885)
Net loss	(1,753,352)	(69.4)	(1,026,354)	(25.6)	(745,883)	(108,142)
Net loss attributable to noncontrolling interests	563	—	30,699	0.8	18,851	2,733
Net loss attributable to ordinary shareholders of the company	(1,752,789)	(69.4)	(995,655)	(24.8)	(727,032)	(105,409)
Including:						
Net loss from continuing operations attributable to ordinary shareholders of the company	(798,462)	(31.6)	(895,388)	(22.3)	(720,927)	(104,524)
Net loss from discontinued operations attributable to ordinary shareholders of the company	(954,327)	(37.8)	(100,267)	(2.5)	(6,105)	(885)
Net loss per ordinary share/ADS						
Basic	(15.53)		(8.18)		(5.88)	(0.85)
—Continuing operations	(7.07)		(7.36)		(5.83)	(0.84)
—Discontinued operations	(8.46)		(0.82)		(0.05)	(0.01)
Diluted	(15.53)		(8.18)		(5.88)	(0.85)
—Continuing operations	(7.07)		(7.36)		(5.83)	(0.84)
—Discontinuing operations	(8.46)		(0.82)		(0.05)	(0.01)
Weighted average number of ordinary shares/ADSs used in calculating net loss per ordinary share/ADS						

	For the Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	RMB	US\$
	(in thousands, except for percentages, shares and per share/ADS data)					
Basic	112,864,452		121,650,907		123,597,604	123,597,604
Diluted	112,864,452		121,650,907		123,597,604	123,597,604

Notes:

- (1) The following table sets forth our share-based compensation expenses, including the share-based compensation expenses allocated to us based on awards granted to our employees pursuant to NetEase's RSU incentive plans. See also "Item 7. Major shareholders and Related Party Transactions—7.B. Related Party Transactions—Transactions with NetEase and Other Related Parties."

	For the Year Ended December 31,			
	2020	2021	2022	
	RMB	RMB	RMB	US\$
	(in thousands)			
Cost of revenues	4,641	7,862	5,984	868
Sales and marketing expenses	4,821	10,521	12,669	1,837
Research and development expenses	19,738	33,775	30,578	4,433
General and administrative expenses	7,225	20,043	21,478	3,114
Total	36,425	72,201	70,709	10,252

Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

Net Revenues

Our net revenues increased by 24.8% from RMB4,015.8 million in 2021 to RMB5,013.2 million (US\$726.8 million) in 2022.

Learning services

Our net revenues generated from learning services increased by 26.3% from RMB2,441.4 million in 2021 to RMB3,084.4 million (US\$447.2 million) in 2022 to, which was mainly driven by the substantial increase in revenues from our tutoring services, and to a lesser extent, by the increase in revenues from other learning services.

- **Tutoring services.** Our net revenues generated from tutoring services increased by 27.1% from RMB2,271.0 million to RMB2,886.1 million (US\$418.4 million) in 2022, which was primarily driven by the growth in paid user enrollments in 2022.
- **Other learning services.** Our net revenues generated from other learning services increased by 16.4% from RMB170.4 million in 2021 to RMB198.2 million (US\$28.7 million) in 2022, primarily driven by the expansion of our enterprise services provided to business customers and increased sales of subscription packages of our online knowledge tools.

Smart devices

Our net revenues generated from distribution of smart devices increased by 28.2% from RMB980.4 million in 2021 to RMB1,256.4 million (US\$182.2 million) in 2022, mainly due to the popularity of Youdao's newly launched products, such as the Youdao Dictionary Pen X5.

Online marketing services

Our net revenues generated from online marketing services increased by 13.2% from RMB593.9 million in 2021 to RMB672.4 million (US\$97.5 million) in 2022, primarily due to the increase in the sales of performance-based advertisements through third parties' internet properties.

Cost of revenues

Our cost of revenues increased by 19.7 % from RMB2,027.0 million in 2021 to RMB2,426.8 million (US\$351.8 million) in 2022.

Learning services

Our cost of revenues of learning services increased from RMB980.7 million to RMB1,172.7 million (US\$170.0 million) in 2022, primarily due to an increase in the payroll related expenses by 37.7% from RMB390.5 million in 2021 to RMB537.6 million (US\$77.9 million) in 2022, mainly driven by the increased salaries and other benefits paid to our instructors and teaching assistants as we increased the headcounts of teaching assistants to support the expansion of our tutoring service offerings.

Smart devices

Our cost of revenues of smart devices increased from RMB618.9 million in 2021 to RMB765.6 million (US\$111.0 million) in 2022, which was largely driven by the significant increase in the sales of our newly launched products in 2022.

Online marketing services

Our cost of revenues of online marketing services increased from RMB427.3 million in 2021 to RMB488.4 million (US\$70.8 million) in 2022, primarily due to the increase in revenues shared to third parties' internet properties from RMB350.2 million in 2021 to RMB421.9 million (US\$61.2 million) in 2021.

Gross profit & gross margin

The gross margin of learning services increased from 59.8% in 2021 to 62.0% in 2022, primarily because of the improved gross margin of our tutoring services, which was mainly driven by improved economies of scale and the continuous optimization of our faculty compensation structure. The gross margin of smart devices increased from 36.9% in 2021 to 39.1% in 2022, primarily attributable to the popularity of Youdao's newly launched Youdao Dictionary Pen X5, which carries a higher gross margin than other products. The gross margin of online marketing services decreased from 28.1% in 2021 to 27.4% in 2022, primarily due to the increase in performance-based advertisements through third parties' internet properties, which typically have a lower gross margin profile.

Our overall gross profit increased by 30.0% from RMB1,988.8 million in 2021 to RMB2,586.4 million (US\$375.0 million) in 2022. Our overall gross margin was 49.5% and 51.6%, respectively, in 2021 and 2022. The increase in our overall gross margin was primarily due to the increase in the gross margin of learning services and smart devices.

Operating expenses

Our total operating expenses increased by 14.6% from RMB2,932.1 million in 2021 to RMB3,361.1 million (US\$487.3 million) in 2022.

Sales and marketing expenses

Our sales and marketing expenses increased by 12.1% from RMB2,077.6 million in 2021 to RMB2,328.1 million (US\$337.5 million) in 2022, which was mainly driven by approximately 32.8% increase in the payroll-related expenses, as well as the increase in marketing spending from RMB1,393.3 million in 2021 to RMB1,478.6 million (US\$214.4 million) in 2022.

Research and development expenses

Our research and development expenses increased by 32.3% from RMB607.4 million in 2021 to RMB803.8 million (US\$116.5 million) in 2022, which was primarily attributable to the increase in the payroll-related expenses from RMB527.2 million in 2021 to RMB682.5 million (US\$99.0 million) in 2022, mainly driven by an increasing number of development and technology professionals in smart devices and education digitalization solutions, as well as higher compensation level and employee related expenses.

General and administrative expenses

Our general and administrative expenses increased by 20.4% from RMB190.3 million in 2021 to RMB229.2 million (US\$33.2 million) in 2022, which was mainly attributable to the increase in employee-related expenses in 2022.

Impairment of intangible assets from business combination

Impairment of intangible assets from business combination for 2021 primarily reflected the impairment of the intangible assets due to the change of the regulatory environment.

Net loss from continuing operations

As a result of the foregoing, our net losses from continuing operations were RMB926.1 million and RMB739.8 million (US\$107.3 million), respectively, in 2021 and 2022.

Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

See “Item 5. Operating and Financial Review and Prospects—5.A. Operating Results—Year Ended December 31, 2021 Compared to Year Ended December 31, 2020” beginning on page 139 of our Form 20-F for the fiscal year ended December 31, 2021 filed with the SEC on April 28, 2022 (Securities Act File No. 001-39087).

Non-GAAP Financial Measure

We consider and use non-GAAP financial measures, such as non-GAAP net income/(loss) from continuing operations attributable to the company’s ordinary shareholders and non-GAAP basic and diluted income/(loss) from continuing operations per ADS, as supplemental metrics in reviewing and assessing our operating performance and formulating our business plan.

We define non-GAAP net income/(loss) from continuing operations attributable to the company’s ordinary shareholders as net income/(loss) from continuing operations attributable to the company’s ordinary shareholders excluding share-based compensation expenses, amortization of intangible assets from business combination, impairment of intangible assets from business combination and impairment of long-term investments, income tax effects of above GAAP to non-GAAP reconciling items, and adjustment for GAAP to non-GAAP reconciling items for the income/(loss) attributable to noncontrolling interests. Non-GAAP net income/(loss) from continuing operations attributable to the company’s shareholders enables our management to assess our operating results without considering the impact of above-mentioned non-cash charges. We believe that these non-GAAP financial measures provide useful information to investors in understanding and evaluating our current operating performance and prospects in the same manner as management does, if they so choose.

Non-GAAP financial measures are not defined under U.S. GAAP and are not presented in accordance with U.S. GAAP. Non-GAAP financial measures have limitations as analytical tools, which possibly does not reflect all items of expense that affect our operations. In addition, the non-GAAP financial measures we use may differ from the non-GAAP measures used by other companies, including peer companies, and therefore their comparability may be limited.

The presentation of these non-GAAP financial measures is not intended to be considered in isolation from or as a substitute for the financial information prepared and presented in accordance with U.S. GAAP. We encourage investors and others to review our financial information in its entirety and not rely on a single financial measure.

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The following table sets forth a reconciliation of non-GAAP net loss from continuing operation attributable to ordinary shareholders of the company to net loss from continuing operation attributable to ordinary shareholders of the company, the most directly comparable GAAP measure:

	For the Year Ended December 31,			
	2020	2021	2022	
	RMB	RMB	RMB	US\$
	(in thousands)			
Net loss from continuing operations attributable to ordinary shareholders of the company	(798,462)	(895,388)	(720,927)	(104,524)
Add: share-based compensation	36,425	72,201	70,709	10,252
amortization of intangible assets from business combination	—	2,972	—	—
impairment of long-term investments	—	7,000	10,300	1,493
impairment of intangible assets from business combination	—	56,778	—	—
Less: tax effects on non-GAAP adjustments	—	(8,962)	—	—
GAAP to non-GAAP reconciling items for the loss attributable to noncontrolling interests	—	(22,854)	—	—
Non-GAAP net loss from continuing operations attributable to ordinary shareholders of the company	(762,037)	(788,253)	(639,918)	(92,779)
Non-GAAP basic net loss from continuing operations per share/ADS	(6.75)	(6.48)	(5.18)	(0.75)
Non-GAAP diluted net loss from continuing operations per share/ADS	(6.75)	(6.48)	(5.18)	(0.75)

Recent Accounting Pronouncements

For detailed discussion on recent accounting pronouncements, see Note 2 to our consolidated financial statements included elsewhere in this annual report.

5.B. Liquidity and Capital Resources

Cash Flows and Working Capital

Our sources of liquidity primarily include cash from our business operations, short-term loans and long-term loans from NetEase Group and the proceeds received from the sale and issuance of our shares. For details of the loans from NetEase Group, see “Item 7. Major Shareholders and Related Party Transactions—7.B. Related Party Transactions.”

We had working capital deficits (being total current liabilities exceeded that of total current assets) of RMB764.3 million and RMB1,308.6 million (US\$189.7 million) as of December 31, 2021 and 2022, respectively. According to the support letter signed by the NetEase Group in April 2023, the NetEase Group will continue to provide financial support for our continuing operations in the next twenty-five months from the date of this annual report. As of December 31, 2022, we had outstanding interest-bearing short-term loans payable to the NetEase Group in the amount of RMB878.0 million (US\$127.3 million), which constituted a substantial portion of our current liabilities. These loans are generally repayable within one year and were used to provide working capital for the daily operations of our business. In April 2021, we entered into a three-year US\$300.0 million revolving loan facility agreement with NetEase. As of December 31, 2022, we had outstanding interest-bearing long-term loans payable to the NetEase Group in the amount of US\$75.0 million (or equivalent to RMB522.3 million), which was drawn down from the US\$300.0 million revolving loan facility with maturity dated March 31, 2024. We had further drawn down US\$5.0 million (or equivalent to RMB34.5 million) interest-bearing long-term loans payable to the NetEase Group in 2023 until the date of this annual report. Repayment of such loans would materially and adversely affect our liquidity, financial position and cash flows. Besides financial support from NetEase, we will also continue to evaluate and pursue attractive financing opportunities, including issuances of debt or equity securities and obtaining additional credit facilities.

We believe that our existing cash, cash equivalents, restricted cash, time deposits and short-term investments balance as of December 31, 2022, as well as continuous funding support from our controlling shareholder NetEase, would be sufficient to fund our

continuing operating activities, capital expenditures and other obligations for at least the next twelve months.

From time to time, we may decide to enhance our liquidity position or increase our cash reserve for future expansions and acquisitions through additional capital and/or finance funding. The issuance and sale of additional equity, including convertible debt securities, would result in further dilution to our shareholders. The incurrence of indebtedness would result in increased fixed obligations and could result in operating covenants that would restrict our operations. We cannot assure you that financing will be available in amounts or on terms acceptable to us, if at all. If we are unable to obtain additional equity or debt financing as required, our business operations and prospects may suffer.

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As a holding company with no material operations of our own, we conduct a substantial majority of our operations through our PRC subsidiaries and the VIEs and their subsidiaries in China. We are permitted under PRC laws and regulations to provide funding to our PRC subsidiaries in China through capital contributions or loans, subject to applicable approval registration, filings and reporting procedures with government authorities and limits on the amount of capital contributions and loans. In addition, our subsidiaries in China may provide Renminbi funding to the VIEs only through entrusted loans. See “Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Foreign Exchange,” and “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may delay us from making loans or additional capital contributions to our PRC subsidiaries and to make loans to the VIEs, which could materially and adversely affect our liquidity and our ability to fund and expand our business.” The ability of our subsidiaries in China to make dividends or other cash payments to us is subject to various restrictions under PRC laws and regulations. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—We may rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material and adverse effect on our ability to conduct our business” and “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders.”

The following table presents our summary consolidated cash flow data in 2020, 2021 and 2022.

	For the Year Ended December 31,			
	2020	2021	2022	
	RMB	RMB	RMB	US\$
	(in thousands)			
Net cash used in continuing operating activities	(9,868)	(623,566)	(531,412)	(77,048)
Net cash provided by continuing investing activities	767,055	42,699	125,823	18,244
Net cash provided by continuing financing activities	26,559	1,783,713	184,649	26,771

Continuing Operating Activities

Net cash used in continuing operating activities was RMB531.4 million (US\$77.0 million) in 2022. The difference between our net loss from continuing operations of RMB739.8 million (US\$107.3 million) and the net cash used in continuing operating activities was mainly due to (i) an increase in accounts payable of RMB121.3 million due to increased purchase of smart devices and deferred payments to suppliers; and (ii) an increase in accrued liabilities and other payables of RMB75.8 million, which mainly consisted of accrued liabilities for learning services and accrued marketing expenses, resulting from our business growth as well as our increased marketing and promotion activities, partially offset by an increase in accounts receivable of RMB163.5 million primarily arising from the increased sales of newly launched smart devices.

Net cash used in continuing operating activities was RMB623.6 million in 2021. The difference between our net loss from continuing operations of RMB926.1 million and the net cash used in continuing operating activities was mainly due to (i) an increase in contract liabilities (which are mainly composed of deferred revenue relating to the tuition fees received from students for which revenue recognition criteria have not been met) of RMB115.5 million due to the increased gross billings of tutoring services; and (ii) an increase in payroll payable of RMB85.4 million due to increase in the number of employees, partially offset by an increase in inventory of RMB146.7 million.

Net cash used in continuing operating activities was RMB9.9 million in 2020. The difference between our net loss from continuing operations of RMB799.0 million and the net cash used in continuing operating activities was mainly due to (i) an increase of contract liabilities (which are mainly composed of deferred revenue relating to the tuition fees received from students for which revenue recognition criteria have not been met) of RMB545.8 million due to the increased gross billings of tutoring services; (ii) an increase in accrued liabilities and other payables of RMB249.7 million, which mainly consisted of accrued liabilities for learning services and accrued marketing expenses and outsourcing labor service fees, resulting from the growth of our business and our increased marketing and promotion activities; (iii) an increase in accounts payable of RMB78.6 million due to increased purchase of smart devices and deferred payments to suppliers; and (iv) an increase in payroll payable of RMB68.2 million due to increase in the number of employees, partially offset by (i) an increase in prepayment and other current assets of RMB120.8 million; (ii) an increase in accounts receivable of RMB80.1 million primarily arising from the increased receivables from third-party online payment, which resulted from an increase in the amount of tuition fees collected through such payment providers; and (iii) an increase in inventory of RMB54.6 million. Historically, the tuition fees collected through third-party online payment

providers were usually settled within 60 days.

Continuing Investing Activities

Net cash provided by continuing investing activities in 2022 was RMB125.8 million (US\$18.2 million), which was mainly attributable to (i) the proceeds received from maturities of short-term investments of RMB1,530.5 million, partially offset by (i) the purchases of short-term investments of RMB1,258.2 million with variable interest rates; (ii) the purchases of property and equipment of RMB68.7 million; and (iii) the payment for long-term investments of RMB52.1 million.

Net cash provided by continuing investing activities in 2021 was RMB42.7 million, which was mainly attributable to (i) the proceeds received from the maturities of time deposits of RMB907.8 million; (ii) the proceeds received from maturities of short-term investments of RMB860.0 million; and (iii) the net cash acquired from a business combination, net of cash consideration paid, of RMB43.2 million, partially offset by (i) the purchases of time deposits placed with banks with original maturities between three to twelve months of RMB897.9 million; (ii) the purchases of short-term investments of RMB779.5 million with variable interest rates; (iii) the purchases of property and equipment of RMB63.5 million; and (iv) the payment for long-term investments of RMB27.4 million.

Net cash provided by continuing investing activities in 2020 was RMB767.1 million, which was mainly attributable to (i) the proceeds received from the maturities of time deposits of RMB1,327.5 million; and (ii) the proceeds received from maturities of short-term investments of RMB1,220.0 million, partially offset by (i) the purchases of short-term investments of RMB1,683.0 million with variable interest rates; (ii) the payment for long-term investments and cash consideration paid for business combination, net of cash acquired, of RMB46.9 million; (iii) the purchases of property and equipment of RMB30.8 million; and (iv) the purchases of time deposits placed with banks with original maturities between three to twelve months of RMB20.7 million.

Continuing Financing Activities

Net cash provided by continuing financing activities for 2022 was RMB184.6 million (US\$26.8 million), which was mainly attributable to the long-term loan from the NetEase Group of US\$35.0 million (or equivalent to RMB225.9 million), partially offset by cash paid for repurchase of Youdao's ADSs of RMB50.7 million.

Net cash provided by continuing financing activities for 2021 was RMB1,783.7 million, which was mainly attributable to the proceeds of US\$231.6 million (or equivalent to RMB1,498.6 million) received from our follow-on public offering, the long-term loan from the NetEase Group of US\$40.0 million (or equivalent to RMB257.5 million) and the proceeds received from the issuance of ordinary shares granted to our employees pursuant to incentive plans of RMB27.6 million.

Net cash provided by continuing financing activities for 2020 was RMB26.6 million, which was mainly attributable to the proceeds received from the issuance of ordinary shares granted to our employees pursuant to incentive plans of RMB34.5 million, partially offset by payment for initial public offering expenses of RMB7.9 million.

Material Cash Requirements

Our material cash requirements as of December 31, 2022 and any subsequent interim period primarily include working capital needs, capital expenditures, repayment of short-term/long-term loans from NetEase, operating lease obligations, purchase commitments and capital commitments.

Our capital expenditures are incurred primarily in connection with purchase of servers, computers and software. Our capital expenditures were RMB30.8 million, RMB64.1 million and RMB69.8 million (US\$10.1 million), respectively, in 2020, 2021 and 2022. We intend to fund our future capital expenditures with our existing cash balance.

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The following table sets forth the details of our material cash requirements (other than capital expenditure) as of December 31, 2022.

	Less than One Year	One to Three Years	Payments Due by Three to Five Years (RMB in thousands)	More than Five Years	Total
Repayment of short-term/long-term loans from NetEase ⁽¹⁾	878,000	522,345	—	—	1,400,345
Operating lease commitments ⁽²⁾	42,322	30,698	10,774	1,000	84,794
Purchase commitments ⁽³⁾	238,545	5,500	—	—	244,045
Capital commitments ⁽⁴⁾	3,029	—	—	—	3,029
Total	1,161,896	558,543	10,774	1,000	1,732,213

Note:

- (1) Consists of short-term loans from NetEase, as well as long-term loans from NetEase drawn down from the US\$300.0 million revolving loan facility provided by NetEase with maturity dated March 31, 2024.
- (2) Consist of the commitments under non-cancelable operating lease agreements for our office premises. In 2020, 2021 and 2022, our rental expenses were RMB39.9 million, RMB52.8 million and RMB70.1 million (US\$10.2 million), respectively.
- (3) Consist primarily of minimum commitments for purchases of content, marketing services and smart devices.
- (4) Consist primarily of commitments on purchase of fixed assets and the payment on leasehold improvements.

We intend to fund our existing and future material cash requirements with our existing cash balance and other financing alternatives. We will continue to make cash commitments, including capital expenditures to support the short-term and/or long-term growth of our business.

We have not entered into any financial guarantees or other commitments to guarantee the payment obligations of any third parties. We do not have retained or contingent interests in assets transferred. We have not entered into contractual arrangements that support the credit, liquidity or market risk for transferred assets. We do not have obligations that arise or could arise from variable interests held in an unconsolidated entity, or obligations related to derivative instruments that are both indexed to and classified in our own equity, or not reflected in the statement of financial position.

Other than as discussed above, we did not have any significant capital and other commitments, long-term obligations or guarantees as of December 31, 2022.

Off-Balance Sheet Arrangements

We have not entered into any financial guarantees or other commitments to guarantee the payment obligations of any third parties. We have not entered into any derivative contracts that are indexed to our shares and classified as shareholder's equity or that are not reflected in our consolidated financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or engages in leasing, hedging or product development services with us.

Holding Company Structure

Youdao, Inc. is a holding company with no material operations of its own. We conduct our operations primarily through our subsidiaries and the VIEs and their subsidiaries in the PRC. In 2020, 2021 and 2022, the amount of revenues generated by the VIEs and their subsidiaries accounted for 71.0%, 68.5% and 70.1%, respectively, of our total net revenues. As a result, our ability to pay dividends depends upon dividends paid by our subsidiaries which, in turn, depends on the payment of the service fees to our PRC subsidiaries by the VIEs in the PRC pursuant to certain contractual arrangements among our PRC subsidiaries, the VIEs and the VIEs' shareholders. See "Item 4. Information on the Company—4.C. Organizational Structure—Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders." In 2020, 2021 and 2022, the amount of service fees charged by our PRC subsidiaries to the VIEs was RMB1,964.8 million, RMB3,473.5 million and RMB2,767.8 million (US\$401.3 million) (without giving effect to the discontinued operation presentation of our historical financial results as a

result of the disposal of our Academic AST Business), respectively. If our subsidiaries or any newly formed subsidiaries incur debt on their own behalf in the future, the instruments governing their debt may restrict their ability to pay dividends to us.

In addition, our subsidiaries in China are permitted to pay dividends to us only out of their retained earnings, if any, as determined in accordance with the Accounting Standards for Business Enterprise as promulgated by the Ministry of Finance of the PRC, or PRC GAAP. In accordance with PRC company laws and the Foreign Investment Law, the VIEs and subsidiaries in China must make appropriations from their after-tax profit to non-distributable reserve funds including (i) the statutory surplus fund and (ii) the discretionary surplus fund. The appropriation to the statutory surplus fund must be at least 10% of the after-tax profits calculated in accordance with PRC GAAP. Appropriation is not required if the statutory surplus fund has reached 50% of the registered capital of the VIEs. Appropriation to the discretionary surplus fund is made at the discretion of the VIEs.

As an offshore holding company, we are permitted under PRC laws and regulations to provide funding from the proceeds of our offshore fundraising activities to our PRC subsidiaries only through loans or capital contributions, and to the VIEs only through loans, in each case subject to the satisfaction of the applicable government registration and approval requirements. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may delay us from making loans or additional capital contributions to our PRC subsidiaries and to make loans to the VIEs, which could materially and adversely affect our liquidity and our ability to fund and expand our business.” As a result, there is uncertainty with respect to our ability to provide prompt financial support to our PRC subsidiaries and the VIEs when needed. Notwithstanding the foregoing, our PRC subsidiaries may use their own retained earnings (rather than Renminbi converted from foreign currency-denominated capital) to provide financial support to the VIEs either through loans from our PRC subsidiaries or direct loans to the VIEs’ nominee shareholders, which would be contributed to the VIEs as capital injections. Such direct loans to the nominee shareholders of the VIEs would be eliminated in our consolidated financial statements against such VIEs’ share capital.

5.C. Research and Development, Patents and Licenses, etc.

We invest heavily in technological innovation—to break through language and cultural boundaries, digitize multimedia content, increase classroom engagement, and personalize the learning process. See “Item 4. Information on the Company—4.B. Business Overview—Our Technologies.”

5.D. Trend Information

Other than as disclosed elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events in 2022 that are reasonably likely to have a material and adverse effect on our net revenues, income, profitability, liquidity or capital resources, or that would cause the disclosed financial information to be not necessarily indicative of future results of operations or financial condition.

5.E. Critical Accounting Estimates

We consider an accounting estimate to be critical if: (i) the accounting estimate requires us to make assumptions about matters that were highly uncertain at the time the accounting estimate was made, and (ii) changes in the estimate that are reasonably likely to occur from period to period or use of different estimates that we reasonably could have used in the current period, would have a material impact on our financial condition or results of operations. There are other items within our financial statements that require estimation but are not deemed critical, as defined above. Changes in estimates used in these and other items could have a material impact on our financial statements. For a detailed discussion of our significant accounting policies and related judgments, see Note 2 to our consolidated financial statements included elsewhere in this annual report.

Estimate of average learning period for different courses of the customers for recognition of tutoring services revenue

We recognize revenue from the sale of online live-streaming courses and online pre-recorded video courses over the estimated average learning period of the customers, starting from the point-in-time when the courses commence to be delivered.

Nature of Estimates Required – average learning period for different courses. The average learning period for different courses is subjected to period assessment. Considering the events or circumstances may change that indicate the change of the estimate, we assessed the average learning period for different courses on an annual basis or more frequently when there is indicator for the changes in circumstances. We consider qualitative and quantitative factors to determine the average learning period for different courses.

Assumptions Used. Changes in assumptions or estimates can materially affect average learning period for different courses and, therefore, can affect the test results. The following are key assumptions we use in making the average learning period for different courses:

- *estimated learning time customers spend on the courses.* We track the learning time that customers spend on the courses, which is the accumulated learning time for each customer spends during a period for each course. We make assumptions about the ending point of the learning period when the estimated learning time in certain period over accumulated learning time of all customers for such course is not material, and apply it as the expectation. The longer the estimated learning time, the longer the average learning period.

- *expected number of times customers will take the courses.* We track the number of learning times that customers take the courses, which is the accumulated number of times for each customer takes during a period for each course. We make assumptions about the ending point of the learning period when the expected number of times customers take in certain period over accumulated number of learning times of all customers for such course is not material, and apply it as the expectation. The more the expected number of times, the longer the average learning period.
- *Similarities between newly-launched courses and existing courses.* We make assumptions regarding similarities between newly-launched courses and existing courses included in and affected our assumptions regarding customers categories and nature of courses for other courses with similar characteristics with the new courses.

In connection with our periodic reviews of the estimate, the assumptions are evaluated accordingly considering historical customers' learning behavior and management's judgment. Updates to these assumptions will impact the average learning period for different courses and the revenue recognized accordingly. If the estimate average learning period for different courses is extended, the revenue will be recognized over a longer period and vice versa. See Note 2—2. Significant Accounting Policies in the accompanying notes to consolidated financial statements included in this annual report on Form 20-F, for additional information regarding the revenue recognition of tutoring services.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

6.A. Directors and Senior Management

The following table sets forth the name, age and position of each of our directors and executive officers as of the date of this annual report.

<u>Directors and Executive Officers</u>	<u>Age</u>	<u>Position/Title</u>
William Lei Ding	51	Director
Feng Zhou	45	Director, Chief Executive Officer
Harry Heung Yeung Shum	56	Independent Director
Jimmy Lai	66	Independent Director
Lei Jin	45	President
Yinghui Wu	43	Vice President
Renlei Liu	41	Vice President
Peng Su	43	Vice President
Yongwei Li	43	Vice President

William Lei Ding has served as our director since January 2015. Mr. Ding is the founder of NetEase and currently serves as a director and the chief executive officer of NetEase. At NetEase, from March 2001 to November 2005, Mr. Ding served as the chief architect, and, from June 2001 to September 2001, he served as acting chief executive officer and acting chief operating officer. From July 1999 to March 2001, Mr. Ding served as co-chief technology officer of NetEase, and from July 1999 to April 2000, he also served as NetEase's interim chief executive officer. Mr. Ding established Guangzhou NetEase and Shanghai EaseNet in May 1997 and January 2008. Mr. Ding holds a Bachelor of Science degree in communication technology from the University of Electronic Science and Technology of China.

Feng Zhou currently serves as our Chief Executive Officer and has served as our director since April 2018. Prior to joining us in 2007, Dr. Zhou served as a software engineer at ChinaRen Inc. where he led the development of its internet email system. Dr. Zhou received his bachelor's degree and master's degree in computer science from Tsinghua University and received a PhD in computer science from the University of California, Berkeley.

Harry Shum has served as our director since October 2019. Mr. Shum has also served as an independent non-executive director of Meituan Dianping since September 2018. Mr. Shum joined Microsoft Research in 1996 as a researcher based in Redmond, Washington. In 1998, he joined Microsoft Research Asia (formerly known as Microsoft Research China) in Beijing, China as one of the founding members and subsequently spent nine years there, becoming the managing director of Microsoft Research Asia. From 2007 to 2013, Mr. Shum served as the corporate vice president in charge of Bing search product development. From 2013 to February 2020, he served as the executive vice

president of Microsoft's Artificial Intelligence and Research group, responsible for intelligence strategy and forward-looking research and development efforts spanning infrastructure, services, apps and agents. Mr. Shum has served as adjunct professors in many universities, including Tsinghua University, since 2003. Mr. Shum received his PhD in robotics from Carnegie Mellon University.

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Jimmy Lai has served as our director since October 2019. Mr. Lai has served as the Chief Financial Officer of Kneron since January 2022, an independent director of FinVolution Group (NYSE: FINV) since November 2017, an independent director of Zepp Health Corporation (NYSE: ZEPP) since February 2018 and the chief financial officer of Acepodia Inc. since March 2021. Previously, Mr. Lai served as the chief financial officers of China Online Education Group (NYSE: COE) from 2015 to 2018, Chukong Technologies Corp. from 2013 to 2015, and Gamewave Corporation from 2011 to 2013. Prior to that, Mr. Lai served as the chief financial officer of several public companies listed in the United States and in various finance-related roles in other companies. Mr. Lai received his bachelor's degree in Statistics from the National Cheng Kung University in Taiwan and his MBA from the University of Texas at Dallas. Mr. Lai is a certified public accountant licensed in the State of Texas.

Lei Jin currently serves as our president. Prior to joining us in 2005, Mr. Jin served as a software engineer at Intel Corporation (Nasdaq: INTC) from 2003 to 2005. Mr. Jin received his bachelor's degree and master's degree in computer science from Tsinghua University.

Yinghui Wu currently serves as our vice president. Prior to joining us in 2005, Mr. Wu served as a technology manager at Sohu.com Limited (Nasdaq: SOHU) from 2004 to 2005. Mr. Wu received his bachelor's degree and master's degree in computer science from Tsinghua University.

Renlei Liu currently serves as our vice president of marketing. Mr. Liu joined us in 2007 and is currently in charge of our marketing department. Mr. Liu received his MBA from Tsinghua University.

Peng Su has served as our vice president of strategies and capital markets since March 2019. Mr. Su has served as an independent director of 36Kr Holdings Inc. (Nasdaq: KRKR) since November 2019. Prior to joining us, Mr. Su worked at the New York Stock Exchange (China) for over 12 years in various roles, including its representative and later its chief representative. Mr. Su received his master's degree from North Carolina State University.

Yongwei Li has served as our vice president of finance since May 2019. Prior to joining us, Mr. Li served as a financial controller at Weibo Corporation (Nasdaq: WB) and Sina Corporation (Nasdaq: SINA) from 2013 to 2019. Mr. Li previously worked at PricewaterhouseCoopers Zhong Tian LLP between 2005 and 2013, with his last role as an audit manager. Mr. Li received his master's degree in business administration from Jinan University. He is a certified public accountant in the State of New Hampshire and a member of the American Institution of Certified Public Accountants. Mr. Li also qualifies as a member of the Association Chartered Certified Accountant and a member of the Chinese Institute of the Certified Public Accountant.

6.B. Compensation

In 2022, we paid an aggregate of RMB18.0 million (US\$2.6 million) in cash compensation to our directors and executive officers. We have not set aside or accrued any amount to provide pension, retirement or other similar benefits to our directors and executive officers. Our PRC subsidiaries and the VIEs and their subsidiaries are required by law to make contributions equal to certain percentages of each employee's salary for his or her pension insurance, medical insurance, unemployment insurance and other statutory benefits and a housing provident fund.

Employment Agreements and Indemnification Agreements

We have entered into employment agreements with each of our executive officers. Each of our executive officers is employed for indefinite duration until the employment is terminated pursuant to the employment agreement or as mutually agreed between the executive officer and us. We may terminate an executive officer's employment for cause at any time without advance notice in certain events. Save for certain exceptions, either we or the executive officer may terminate the employment at any time by giving a prior written notice. Each executive officer has agreed to hold, unless expressly consented to by us, at all times during and after the termination of his or her employment agreement, in strict confidence and not to use, any of our confidential information including the confidential information of our users, customers and suppliers. In addition, each executive officer has agreed to be bound by certain non-competition and non-solicitation restrictions during the term of his or her employment and 12 months after the termination of the employment.

We have also entered into indemnification agreements with each of our directors and executive officers. Under these agreements, we agree to indemnify our directors and executive officers against certain liabilities and expenses incurred by such persons in connection with

claims made by reason of their being a director or officer of our company.

Share Incentive Plan

2015 Share Incentive Plan

We adopted an employee share incentive plan, which we refer to as the 2015 Plan, in February 2015, as may be amended, restated and/or supplemented from time to time. The 2015 Plan was amended in April 2018. The purpose of the 2015 Plan is to promote the success and enhance the value of our company by linking the personal interests of the employees, directors and consultants to those of our shareholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to our shareholders. The maximum aggregate number of ordinary shares we are authorized to issue pursuant to equity awards granted under the 2015 Plan is 10,222,222 shares. As of March 31, 2023, options to purchase a total of 4,408,892 ordinary shares are outstanding under the 2015 Plan, and 2,731,072 of such options had vested and become exercisable.

The following paragraphs summarize the terms of the 2015 Plan.

Types of Awards. The 2015 Plan permits the awards of options, restricted shares, restricted share units, share appreciation rights, dividend equivalents, share payments, deferred shares and other type of awards as designed and approved by the plan administrator.

Plan Administration. The 2015 Plan shall be administrated by the board or a committee of the board as may be designated by the board.

Eligibility. Any employee, director or consultant of the company shall be eligible to participate in the 2015 Plan, as determined by the plan administrator.

Award Agreement. Each award under the 2015 Plan shall be evidenced and governed exclusively by an award agreement executed by the company and the participants, including any amendments thereto. The award agreement may include the term of an award, the provisions applicable in the event the participant's employment or service terminates, and the company's authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind an award. The award agreement shall also include such additional provisions as may be specified by the plan administrator.

Conditions of Award. The plan administrator of the 2015 Plan shall determine the provisions, terms, and conditions of each award including, but not limited to, the types of awards, award vesting schedule, number of awards to be granted and the number of shares to be covered by the awards, exercise price, any restrictions or limitations on the award and term of each award.

Acceleration of Awards upon Change in Control. Upon a change of control of the company, any award previously granted pursuant to the 2015 Plan shall vest immediately unless the plan administrator determines otherwise.

Protection against Dilution. In the event of any dividend, share split, combination or exchange of shares, amalgamation, arrangement or consolidation, spin-off, recapitalization or other distribution (other than normal cash dividends) of company assets to our shareholders, or any other change affecting the share capital, the plan administrator shall make such proportionate adjustments, if any, as necessary to reflect such change with respect to (i) the aggregate number and type of shares that may be issued under the 2015 Plan; (ii) the terms and conditions of any outstanding awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and (iii) the grant or exercise price per share for any outstanding awards under the 2015 Plan.

Amendment, Suspension or Termination of the 2015 Plan. With the approval of the board, the plan administrator may terminate, amend or modify the 2015 Plan; provided, however, that to the extent necessary and desirable to comply with any applicable law, regulation, or stock exchange rule, unless the company decides to follow home country practice not to seek the shareholder approval for any amendment or modification of the 2015 Plan, the company shall obtain shareholder approval of any plan amendment in such a manner and to such a degree as required. No termination, amendment, or modification of the 2015 Plan shall adversely affect in any material way any award previously granted pursuant to the 2015 Plan without the prior written consent of the participant.

2023 Share Incentive Plan

We adopted an employee share incentive plan, which we refer to as the 2023 Plan, in April 2023, as may be amended, restated and/or

supplemented from time to time. The purpose of the 2023 Plan is to promote the success and enhance the value of our company by linking the personal interests of the employees, directors and consultants to those of our shareholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to our shareholders. The maximum aggregate number of ordinary shares we are authorized to issue pursuant to equity awards granted under the 2023 Plan is 5,668,625 shares.

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The following paragraphs summarize the terms of the 2023 Plan.

Types of Awards. The 2023 Plan permits the awards of options, restricted shares, restricted share units, share appreciation rights, dividend equivalents, share payments, deferred shares and other type of awards as designed and approved by the plan administrator.

Plan Administration. The 2023 Plan shall be administrated by the board or a committee of the board as may be designated by the board.

Eligibility. Any employee, director or consultant of the company shall be eligible to participate in the 2023 Plan, as determined by the plan administrator.

Award Agreement. Each award under the 2023 Plan shall be evidenced and governed exclusively by an award agreement executed by the company and the participants, including any amendments thereto. The award agreement may include the term of an award, the provisions applicable in the event the participant's employment or service terminates, and the company's authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind an award. The award agreement shall also include such additional provisions as may be specified by the plan administrator.

Conditions of Award. The plan administrator of the 2023 Plan shall determine the provisions, terms, and conditions of each award including, but not limited to, the types of awards, award vesting schedule, number of awards to be granted and the number of shares to be covered by the awards, exercise price, any restrictions or limitations on the award and term of each award.

Acceleration of Awards upon Change in Control. Upon a change of control of the company, any award previously granted pursuant to the 2023 Plan shall vest immediately unless the plan administrator determines otherwise.

Protection against Dilution. In the event of any dividend, share split, combination or exchange of shares, amalgamation, arrangement or consolidation, spin-off, recapitalization or other distribution (other than normal cash dividends) of company assets to our shareholders, or any other change affecting the share capital, the plan administrator shall make such proportionate adjustments, if any, as necessary to reflect such change with respect to (i) the aggregate number and type of shares that may be issued under the 2023 Plan; (ii) the terms and conditions of any outstanding awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and (iii) the grant or exercise price per share for any outstanding awards under the 2023 Plan.

Amendment, Suspension or Termination of the 2023 Plan. With the approval of the board, the plan administrator may terminate, amend or modify the 2023 Plan. No termination, amendment, or modification of the 2023 Plan shall adversely affect in any material way any award previously granted pursuant to the 2023 Plan without the prior written consent of the participant.

The following table summarizes, as of March 31, 2023, the number of ordinary shares underlying outstanding options that we granted to our directors and executive officers:

	Ordinary Shares Underlying Options Outstanding	Exercise Price (US\$/Share)	Date of Grant	Date of Expiration
William Lei Ding	—	—	—	—
Feng Zhou	—	—	—	—
Harry Heung Yeung Shum			February 25, 2020 January 25, 2021 and January 18, 2022	February 25, 2026, January 25, 2027 and January 18, 2028
	*	US\$4.0 to US\$4.5		
Jimmy Lai			January 25, 2021 and January 18, 2022	January 25, 2027 and January 18, 2028
	*	US\$4.5		
Lei Jin	*	US\$4.5	January 25, 2021	January 25, 2027
Yinghui Wu	*	US\$4.5	January 25, 2021	January 25, 2027

Renlei Liu			February 11, 2015, January 17, 2017 and January 25, 2021	October 20, 2023, January 17, 2024 and January 25, 2027
	*	US\$1.5 to US\$4.5		
Peng Su			May 30, 2019 and January 25, 2021	May 30, 2025 and January 25, 2027
	*	US\$3.5 to US\$4.5		

	Ordinary Shares Underlying Options Outstanding	Exercise Price (US\$/Share)	Date of Grant	Date of Expiration
Yongwei Li			May 30, 2019, January 14, 2020 and January 25, 2021	May 30, 2025, January 14, 2026 and January 25, 2027
	*	US\$3.5 to US\$4.5	February 11, 2015, January 17, 2017, May 30, 2019, January 14, 2020, February 25, 2020, January 25, 2021 and January 18, 2022	October 20, 2023, January 17, 2024, May 30, 2025, January 14, 2026, February 25, 2026, January 25, 2027 and January 18, 2028
All directors and executive officers as a group	*	US\$1.5 to US\$4.5		

* Less than 1% of our total outstanding shares.

As of March 31, 2023, our employees as a group hold options to purchase 4,408,892 ordinary shares, with exercise prices ranging from US\$1.5 per share to US\$4.5 per share, with a weighted average of exercise prices of US\$3.6 per share.

For discussions of our accounting policies and estimates for awards granted pursuant to the 2015 Plan, see “Item 5. Operating and Financial Review and Prospects—5.A. Operating Results—Critical Accounting Policies and Judgments—Share-based compensation.”

6.C. Board Practices

Board of Directors

Our board of directors consists of four directors. A director is not required to hold any shares in our company to qualify to serve as a director. For so long as Dr. Zhou beneficially owns not less than 50% of the ordinary shares that he beneficially owned immediately upon the completion of our initial public offering, his shareholding entity shall be entitled to nominate at least one non-independent director but no more than one-third of all non-independent directors then in office, whose appointment and removal shall be subject to the approval by the board of directors or the shareholders by an ordinary resolution. Subject to the MAA, our company may by ordinary resolution appoint any person to be a director and the board may, by affirmative vote of a simple majority of the remaining directors present and voting at a board meeting, appoint any person as a director to fill a casual vacancy or as an addition to the existing board. Subject to any separate requirement for audit committee approval under applicable law or the NYSE rules, a director may vote with respect to any contract, proposed contract or arrangement notwithstanding that he may be interested therein, and if he does so his vote shall be counted and he may be counted in the quorum at any meeting of our directors at which any such contract or proposed contract or arrangement is considered, provided that such director declares the nature of his interest at the meeting of the board at which the question of entering into the contract or arrangement is first considered, if he knows his interest then exists, or in any other case at the first meeting of the board after he knows that he is or has become so interested. The directors may exercise all the powers of the company to borrow money, to mortgage or charge its undertaking, property and uncalled capital, and to issue debentures or other securities whenever money is borrowed or as security for any debt, liability or obligation of the company or of any third party. None of our non-executive directors has a service contract with us that provides for benefits upon termination of service.

Committees of the Board of Directors

We have established an audit committee, a compensation committee and a nominating and corporate governance committee under our board of directors, and have adopted a charter for each of the three committees. Each committee's members and functions are described below.

Audit Committee. Our audit committee consists of Mr. Harry Shum and Mr. Jimmy Lai, and is chaired by Mr. Jimmy Lai. We have determined that both Mr. Harry Shum and Mr. Jimmy Lai satisfy the requirements of Section 303A of the Corporate Governance Rules of the NYSE and meet the independence standards under Rule 10A-3 under the Securities Exchange Act of 1934, as amended. We have determined that Mr. Jimmy Lai qualifies as an “audit committee financial expert.” The audit committee oversees our accounting and financial reporting processes and the audits of the financial statements of our company. The audit committee is responsible for, among other things:

- reviewing and recommending to our board for approval, the appointment, re-appointment or removal of the independent auditor, after considering its annual performance evaluation of the independent auditor;
- approving the remuneration and terms of engagement of the independent auditor and pre-approving all services permitted to be performed by our independent auditors;
- evaluating the independent auditor’s qualifications, performance and independence;
- reviewing with the independent registered public accounting firm any audit problems or difficulties and management’s response;
- discussing with our independent auditor, among other things, the audits of the financial statements, including whether any material information should be disclosed, issues regarding accounting and auditing principles and practices;
- reviewing and approving all proposed related party transactions, as defined in Item 7 of Form 20-F, including transactions between NetEase and us;
- discussing the annual audited financial statements with management and the independent registered public accounting firm;
- reviewing our accounting and internal control policies and procedures and any special steps taken to monitor and control major financial risk exposures;
- periodically reviewing and reassessing the adequacy of the committee charter;
- approving annual audit plans, and undertaking an annual performance evaluation of the internal audit function;
- meeting separately and periodically with management and the independent registered public accounting firm;
- monitoring compliance with our code of business conduct and ethics and report on such compliance to the board; and
- reporting regularly to the board.

Compensation Committee. Our compensation committee consists of Mr. Harry Shum and Mr. Jimmy Lai and is chaired by Mr. Harry Shum. We have determined that both directors satisfy the “independence” requirements of Section 303A of the Corporate Governance Rules of the NYSE. The compensation committee assists the board in reviewing and approving the compensation structure, including all forms of compensation, relating to our directors and executive officers. Our chief executive officer may not be present at any committee meeting during which their compensation is deliberated upon. The compensation committee is responsible for, among other things:

- overseeing the development and implementation of compensation programs in consultation with our management;
- reviewing and approving, or recommending to the board for its approval, the compensation for our executive officers;
- reviewing and recommending to the board for determination with respect to the compensation of our non-executive directors;
- reviewing periodically and approving any incentive compensation or equity plans, programs or other similar arrangements;
- periodically reviewing and reassessing the adequacy of the committee charter;
- selecting compensation consultant, legal counsel or other adviser only after taking into consideration all factors relevant to that person’s independence from management; and
- reporting regularly to the board.

Nominating and Corporate Governance Committee. Our nominating and corporate governance committee consists of Mr. Harry Shum and Mr. Jimmy Lai, and is chaired by Mr. Harry Shum. We have determined that both directors satisfy the “independence” requirements of Section 303A of the Corporate Governance Rules of the NYSE. The nominating and corporate governance committee assists the board in selecting individuals qualified to become our directors and in determining the composition of the board and its committees. The nominating and corporate governance committee is responsible for, among other things:

- recommending nominees to the board for election or reelection to the board, or for appointment to fill any vacancy on the board;
- reviewing and evaluating the size, composition, function and duties of the board consistent with its needs;
- reviewing candidates’ qualifications for membership on the board or a committee of the board based on the criteria approved by the board;
- reviewing and approving compensation (including equity-based compensation) for the directors;
- making recommendations to the board as to determinations of director independence;
- periodically reviewing and reassessing the adequacy of the committee charter; and
- evaluating the performance and effectiveness of the board as a whole.

Duties and Functions of Directors

Under Cayman Islands law, our directors owe fiduciary duties to our company, including a duty of loyalty, a duty to act honestly and a duty to act in what they consider in good faith to be in our best interests. Our directors must also exercise their powers only for a proper purpose. Our directors also owe to our company a duty to exercise the skill they actually possess and such care and diligence that a reasonable prudent person would exercise in comparable circumstances. It was previously considered that a director need not exhibit in the performance of his duties a greater degree of skill than may reasonably be expected from a person of his knowledge and experience. However, English and Commonwealth courts have moved towards an objective standard with regard to the required skill and care and these authorities are likely to be followed in the Cayman Islands. In fulfilling their duty of care to us, our directors must ensure compliance with our memorandum and articles of association, as amended and restated from time to time. Our company has the right to seek damages if a duty owed by our directors is breached. In limited exceptional circumstances, a shareholder may have the right to seek damages in our name if a duty owed by our directors is breached. In accordance with our MAA, the functions and powers of our board of directors include, among others, (i) convening shareholders’ annual general meetings and reporting its work to shareholders at such meetings, (ii) declaring dividends, (iii) appointing officers and determining their terms of offices and responsibilities, and (iv) approving the transfer of shares of our company, including the registering of such shares in our share register. In addition, in the event of a tie vote, the chairman of our board of directors has, in addition to his personal vote, the right to cast a second or casting vote.

Terms of Directors and Officers

Our officers are elected by and serve at the discretion of the board. Each director is not subject to a term of office and holds office until such time as his successor takes office or until the earlier of his death, resignation or removal from office by ordinary resolution or the affirmative vote of a simple majority of the other directors present and voting at a board meeting. A director will be removed from office automatically if, among other things, the director (i) becomes bankrupt or makes any arrangement or composition with his creditors; (ii) dies or is found by our company to be of unsound mind; (iii) resigns by notice in writing to our company; (iv) is prohibited by law or NYSE rules from being a director; or (v) is removed from office pursuant to any other provisions of our MAA.

Interested Transactions

A director may, subject to any separate requirement for audit committee approval under applicable law or applicable NYSE rules as well as laws of the Cayman Islands, vote in respect of any contract or transaction in which he or she is interested, provided that the nature of the interest of any directors in such contract or transaction is disclosed by him or her at or prior to its consideration and any vote in that matter.

6.D. Employees

We had 5,068 full-time employees as of December 31, 2022, most of which were located in our offices in Beijing, Xi'an, Guangzhou, Hangzhou and Nanjing, China. The following table sets forth the breakdowns of our full-time employees by function as of December 31, 2022:

Function	Number of Full-Time Employees	Percentage
Teaching staff ⁽¹⁾ and product and service operations	2,369	46.7%
R&D and related	1,123	22.2%
Sales and marketing	1,236	24.4%
General and administrative	340	6.7%
Total	5,068	100.0%

Note:

- (1) Our teaching staff consists of (i) instructors; and (ii) teaching assistants focused on providing students with academic and administrative support.

We enter into standard employment contracts with our full-time employees. In addition to salaries and benefits, we provide performance-based bonuses for our full-time employees and commission-based compensation for our sales force.

Under PRC law, we participate in various employee social security plans that are organized by municipal and provincial governments for our PRC-based full-time employees, including pension, unemployment insurance, childbirth insurance, work-related injury insurance, medical insurance and housing insurance. We are required under PRC law to make contributions from time to time to employee benefit plans for our PRC-based full-time employees at specified percentages of the salaries, bonuses and certain allowances of such employees, up to a maximum amount specified by the local governments in China.

We believe that we maintain a good working relationship with our employees, and we have not experienced any material labor disputes in the past. None of our employees are represented by labor unions.

We also use the services provided by part-time employees, including personnel that primarily act in teaching, ancillary secretarial and technical roles, such as translation and website maintenance and monitoring.

6.E. Share Ownership

The following table sets forth information concerning the beneficial ownership of our ordinary shares as of March 31, 2023 by:

- each of our directors and executive officers; and
- each person known to us to beneficially own more than 5% of our ordinary shares.

We have adopted a dual-class voting structure. The calculations in the table below are based on 124,214,435 ordinary shares issued and outstanding as of March 31, 2023, consisting of 35,926,075 class A ordinary shares and 88,288,360 Class B ordinary shares (excluding 1,755,011 Class A ordinary shares repurchased in the form of ADSs).

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we have included shares that the person has the right to acquire within 60 days, including through the exercise of any option, warrant, or other right or the conversion of any other security. These shares, however, are not included in the computation of the percentage ownership of any other person.

Ordinary Shares Beneficially Owned as of March 31, 2023	
Class A	Class B

	Ordinary Shares		Ordinary Shares		Total Ordinary Shares		Voting Power %***
	Number	%	Number	%	Number	%	
Directors and Executive Officers: †							
William Lei Ding ⁽¹⁾	2,479,232	6.9	29,424,222	33.3	31,903,454	25.7	30.2
Feng Zhou ⁽²⁾	—	—	20,341,200	23.0	20,341,200	16.4	20.3

	Ordinary Shares Beneficially Owned as of March 31, 2023							
	Class A		Class B		Total Ordinary Shares		Voting Power %***	
	Ordinary Shares Number	%	Ordinary Shares Number	%	Number	%		
Harry Heung Yeung Shum	*	*	—	—	*	*	*	
Jimmy Lai	*	*	—	—	*	*	*	
Lei Jin ⁽³⁾	*	*	920,000	1.0	*	*	*	
Yinghui Wu ⁽⁴⁾	*	*	1,640,000	1.9	1,648,000	1.3	1.6	
Renlei Liu ⁽⁵⁾	604,000	1.7	—	—	*	*	*	
Peng Su	*	*	—	—	*	*	*	
Yongwei Li	*	*	—	—	*	*	*	
All directors and executive officers as a group	3,398,415	9.3	52,325,422	59.3	55,723,837	44.6	53.2	
Principal Shareholders:								
NetEase, Inc. ⁽⁶⁾	2,898,293	8.1	65,387,160	74.1	68,285,453	55.0	66.2	
Peng Ke Holdings Inc. ⁽²⁾	—	—	20,341,200	23.0	20,341,200	16.4	20.3	
Orbis ⁽⁷⁾	14,807,838	41.2	—	—	14,807,838	11.9	4.9	

Notes:

- * Less than 1% of our total issued and outstanding shares on an as-converted basis.
- ** For each person and group included in this table, percentage ownership is calculated by dividing the number of shares beneficially owned by such person or group by the sum of (i) 124,214,435, being the number of ordinary shares on an as-converted basis issued and outstanding as of March 31, 2023 (excluding 1,755,011 Class A ordinary shares repurchased in the form of ADSs); and (ii) the number of ordinary shares underlying share options held by such person or group that are exercisable within 60 days after March 31, 2023.
- *** For each person and group included in this column, percentage of voting power is calculated by dividing the voting power beneficially owned by such person or group by the voting power of all of our ordinary shares as a single class.
- † The business address of our directors and executive officers, except William Lei Ding, Harry Heung Yeung Shum, and Jimmy Lai, is No. 399 Wangshang Road, Binjiang District, Hangzhou 310051, People's Republic of China.
- (1) Represents (i) 1,175,000 ADSs, representing 1,175,000 Class A ordinary shares held of record by Dragon Creation Technology Limited, a company incorporated under the laws of the British Virgin Islands, (ii) 1,304,232 ADSs, representing 1,304,232 Class A ordinary shares held of record by NetEase (of which Mr. Ding is the chief executive officer, a director and a major shareholder), and (iii) 29,424,222 Class B ordinary shares held of record by NetEase. Dragon Creation Technology Limited is wholly owned by Sino Intelligence Holding Limited, which is in turn wholly owned by Sino Intelligence Trust, or the Trust, for which TMF (Cayman) Ltd. acts as the trustee. Mr. Ding is the sole director of Dragon Creation Technology Limited and the settlor of the Trust, retaining the investment and dispositive powers with respect to the assets of the Trust. The beneficiaries of the Trust are William Lei Ding and his family. In addition, Mr. Ding, through Shining Globe International Limited, beneficially owns approximately 45.0% equity interest in NetEase as of March 31, 2023, and Shining Globe International Limited is the record owner of 1,450,300,000 ordinary shares of NetEase as of March 31, 2023. Shining Globe International Limited is wholly owned by Shining Globe Holding Limited, which is in turn wholly owned by Shining Globe Trust. Mr. Ding, being the sole director of Shining Globe International Limited and the settlor of the Shining Globe Trust, retains the investment and dispositive powers with respect to the assets of the Shining Globe Trust. The business address of William Lei Ding is NetEase Building, No. 599 Wangshang Road, Binjiang District, Hangzhou 310052, People's Republic of China.
- (2) Represents 20,341,200 Class B ordinary shares held of record by Peng Ke Holdings Inc., a British Virgin Islands company ultimately wholly owned by Cititrust Private Trust (Cayman) Limited as the trustee of a discretionary and revocable trust constituted under the laws of the Cayman Islands, with Dr. Zhou as the settlor and the sole beneficiary. The registered address of Peng Ke Holdings Inc. is Kingston Chambers, PO Box 173, Road Town, Tortola, British Virgin Islands. The business address of Dr. Zhou is the same as the address of our principal executive offices.
- (3) Represents 920,000 Class B ordinary shares held of record by JinLei Quark Tech, Inc., a British Virgin Islands company wholly owned by Mr. Jin, and 8,000 Class A ordinary shares underlying share options exercisable within 60 days after March 31, 2023. The registered address of JinLei Quark Tech, Inc. is Kingston Chambers, PO Box 173, Road Town, Tortola, Virgin Islands (British). The business address of Mr. Jin is the same as the address of our principal executive offices.

- (4) Represents 1,640,000 Class B ordinary shares held of record by Ice River Tech, Inc., a British Virgin Islands company wholly owned by Mr. Wu and 8,000 Class A ordinary shares underlying share options exercisable within 60 days after March 31, 2023. The registered address of Ice River Tech, Inc. is Kingston Chambers, PO Box 173, Road Town, Tortola, British Virgin Islands. The business address of Mr. Wu is the same as the address of our principal executive offices.
- (5) Represents 184,000 Class A ordinary shares held of record by Taersi, Inc., a British Virgin Islands company wholly owned by Mr. Liu. with a registered address at Kingston Chambers, PO Box 173, Road Town, Tortola, Virgin Islands (British) and 420,000 Class A ordinary shares underlying share options exercisable within 60 days after March 31, 2023. The business address of Mr. Liu is the same as the address of our principal executive offices.

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- (6) The business address of NetEase, Inc., a Cayman Islands company, is NetEase Building, No. 599 Wangshang Road, Binjiang District, Hangzhou 310052, People's Republic of China. NetEase is a reporting company under the Exchange Act and is listed on the NASDAQ Global Select Market and the Main Board of the Hong Kong Stock Exchange.
- (7) Represents 14,807,838 ADSs, representing 14,807,838 Class A ordinary shares beneficially owned by Orbis Investment Management Limited, as reported in Schedule 13G filed by Orbis Investment Management Limited on February 14, 2023. The business address of Orbis Investment Management Limited is Orbis House, 25 Front Street, Hamilton, HM 11, Bermuda.

To our knowledge, as of March 31, 2023, 35,742,075 of our Class A outstanding ordinary shares were held by one record holder in the United States, which is the depository of our ADS program, representing 28.8% of our total issued and outstanding ordinary shares (excluding 1,755,011 Class A ordinary shares repurchased in the form of ADSs) as of such date. We are not aware of any arrangement that may, at a subsequent date, result in change of control of our company.

6.F. Disclosure of a Registrant's Action to Recover Erroneously Awarded Compensation

Not applicable.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

7.A. Major Shareholders

Please refer to "Item 6. Directors, Senior Management and Employees—6.E. Share Ownership."

7.B. Related Party Transactions

Transactions with NetEase and Other Related Parties

The table below sets forth our significant related party transactions with entities that control us or are under common control with us, or entities on which we have significant influence for the periods indicated:

	For the Year Ended December 31,			
	2020	2021	2022	
	RMB	RMB	RMB	US\$
	(in thousands)			
<i>Services and products provided to NetEase Group</i>				
Learning services provided to NetEase Group ⁽¹⁾	5,826	7,360	18,029	2,614
Smart devices provided to NetEase Group ⁽²⁾	7,607	6,607	8,748	1,268
Online marketing services provided to NetEase Group ⁽³⁾	15,860	9,823	7,925	1,149
Other services provided to NetEase Group ⁽⁴⁾	—	—	9,588	1,390
Fixed assets provided to NetEase Group ⁽⁵⁾	—	—	936	136
<i>Services and products purchased from NetEase Group and other related parties</i>				
Services purchased from NetEase Group ⁽⁶⁾	163,487	143,186	153,523	22,258
Services purchased from other related party ⁽⁷⁾	—	—	9,572	1,388
Fixed assets and inventories purchased from NetEase Group ⁽⁸⁾	2,198	2,489	1,087	158
<i>Loan-related transactions</i>				
Interest expenses on loans from NetEase Group ⁽⁹⁾	31,215	31,644	45,607	6,612
Addition of long-term loans from NetEase Group ⁽¹⁰⁾	—	257,522	225,941	32,758
<i>Equity-related transactions</i>				
Share-based compensation under NetEase Plan ⁽¹¹⁾	2,682	1,043	1,499	217
Deemed distribution to NetEase ⁽¹²⁾	2,060	4,171	—	—
<i>Other transactions</i>				
Disposal of Youdao Cloudnote business to NetEase Group ⁽¹³⁾	670	—	—	—

Notes:

(1) Mainly refer to the translation services provided to the entities within NetEase Group.

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- (2) Mainly refer to the arrangements where entities within NetEase Group act as the distributors to sell our smart devices.
- (3) Mainly refer to the advertising services we provide to the other members of NetEase Group to promote their services and products.
- (4) Mainly refer to the server leasing services provided to the entities within NetEase Group.
- (5) Mainly consist of certain fixed assets provided by us to NetEase Group.
- (6) Mainly consist of the human resource functions performed by employees of other members of NetEase Group, office leasing and the purchase of sever custody service.
- (7) Mainly refer to the technical support services provided by an equity investee of us.
- (8) Mainly consist of certain fixed assets and hardware purchased by us from NetEase Group.
- (9) Represent the short-term loans we borrowed from NetEase Group.
- (10) Represent the long-term loans we borrowed from NetEase Group.
- (11) Represent the share-based compensation under NetEase's RSU Plan allocated to us based on grants under such plan to our employees. For more information about NetEase's RSU Plan, see "Item 5. Operating and Financial Review and Prospects—5.A. Operating Results—Critical Accounting Policies and Judgments—Share-based compensation—NetEase's RSU Plan."
- (12) Represent the deemed distribution to NetEase Group by purchasing restricted share units for Youdao's employees under NetEase's RSU Plan.
- (13) Disposal of *Youdao Cloudnote* business related to disposal of *Youdao Cloudnote* business to an investee established by the company and NetEase in December 2020.

The table below sets forth the balances with NetEase Group as of the dates indicated:

	As of December 31,		
	2021	2022	
	RMB	RMB	US\$
	(in thousands)		
Amounts due from NetEase Group	6,192	7,888	1,144
Prepayment to other related party	—	7,762	1,125
Amounts due to NetEase Group	83,041	68,809	9,976
Short-term loans from NetEase Group	878,000	878,000	127,298
Long-term loans from NetEase Group	255,028	522,345	75,733

The amounts due from NetEase Group as of December 31, 2021 and 2022 primarily consisted of amounts unsettled in connection with the services and products provided to NetEase Group, as indicated in the table for the significant related party transactions above. The prepayment to other related party as of December 31, 2022 consisted of the prepaid balance for technical support services provided by an equity investee of us. The amounts due to NetEase Group as of December 31, 2021 and 2022 primarily consisted of amounts unsettled in connection with the services and products purchased from NetEase Group, as indicated in the table for the significant related party transactions above.

The short-term loans from NetEase Group as of December 31, 2021 and 2022 consisted of RMB-denominated entrustment loans from NetEase Group, all of which were repayable within one year with interest rates ranging from 3.5% to 3.9% per annum.

The long-term loans from NetEase Group as of December 31, 2022 consisted of US\$75.0 million US-denominated loans from NetEase Group, which were drawn down from the US\$300.0 million revolving loan facility with maturity dated March 31, 2024.

Contractual Arrangements

See "Item 4. Information on the Company—4.C. Organizational Structure—Contractual Arrangements with the VIEs and the VIEs' Respective Shareholders" for a description of the contractual arrangements by and among our PRC subsidiary, the VIEs and the shareholders of the VIEs.

Employment Agreements and Indemnification Agreements

See "Item 6. Directors, Senior Management and Employees—6.B. Compensation—Employment Agreements and Indemnification

Agreements.”

Share Incentives

See “Item 6. Directors, Senior Management and Employees—6.B. Compensation—Share Incentive Plan.”

7.C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

8.A. Consolidated Statements and Other Financial Information

We have appended consolidated financial statements filed as part of this annual report.

Litigation

We are involved in various claims and legal actions that arise in the ordinary course of business. We do not believe that the ultimate resolution of these actions will have a material adverse effect on us.

Dividend Policy

We have not previously declared or paid any cash dividend or dividend in kind and we have no plan to declare or pay any dividends in the foreseeable future on our shares or the ADSs representing our Class A ordinary shares. We currently intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business.

We are a holding company incorporated in the Cayman Islands. We rely principally on dividends from our PRC subsidiaries for our cash requirements, including any payment of dividends to our shareholders. PRC regulations may restrict the ability of our PRC subsidiaries to pay dividends to us. See “Item 4. Information on the Company—4.B. Business Overview—Regulation—Regulation Related to Foreign Exchange” and “Item 3. Key Information—3.D. Risk Factors—Risk Related to Doing Business in China—Governmental control of currency conversion may limit our ability to utilize our revenues effectively and affect the value of your investment.”

Our board of directors has discretion as to whether to distribute dividends, subject to certain requirements of Cayman Islands law. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our board of directors. Under Cayman Islands law, a Cayman Islands company may pay a dividend out of either profit or share premium account, provided that in no circumstances may a dividend be paid if this would result in the company being unable to pay its debts as they fall due in the ordinary course of business. Even if our board of directors decides to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the board of directors may deem relevant. If we pay any dividends on our ordinary shares, we will pay those dividends which are payable in respect of the Class A ordinary shares underlying the ADSs to the depositary, as the registered holder of such Class A ordinary shares, and the depositary then will pay such amounts to the ADS holders in proportion to the Class A ordinary shares underlying the ADSs held by such ADS holders, subject to the terms of the deposit agreement, including the fees and expenses payable thereunder. See “Item 12. Description of Securities Other Than Equity Securities—12.D. American Depositary Shares.”

8.B. Significant Changes

Except as otherwise disclosed in this report, we have not experienced any significant changes since the date of the annual financial statements included herein.

ITEM 9. THE OFFER AND LISTING

9.A. Offering and Listing Details

Our ADSs have been listed on the NYSE since October 25, 2019 under the symbol “DAO.” Each ADS represents one ordinary share, par value US\$0.0001 per share.

9.B. Plan of Distribution

Not applicable.

9.C. Markets

The ADSs representing our Class A ordinary shares have been listed on the NYSE since October 25, 2019 under the symbol “DAO.”

9.D. Selling Shareholders

Not applicable.

9.E. Dilution

Not applicable.

9.F. Expenses of the Issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

10.A. Share Capital

Not applicable.

10.B. Memorandum and Articles of Association

We are a Cayman Islands exempted company and our affairs are governed by our memorandum and articles of association, as amended and restated from time to time, and Companies Act of the Cayman Islands, and the common law of the Cayman Islands.

We incorporate by reference into this annual report our MAA, the form of which was filed as Exhibit 3.2 to our registration statement on Form F-1 (File Number 333-234009) filed with the SEC on September 30, 2019. We adopted our MAA by a special resolution of our shareholders on September 27, 2019, which became effective immediately prior to completion of our initial public offering of ADSs representing our Class A ordinary shares.

The following are summaries of material provisions of our MAA and the Companies Act as they relate to the material terms of our ordinary shares.

Registered Office and Objects

Our registered office in the Cayman Islands is at the offices of Maples Corporate Services Limited at PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.

According to Clause 3 of our MAA, the objects for which we are established are unrestricted and we have full power and authority to carry out any object not prohibited by the Companies Act or as the same may be revised from time to time, or any other law of the Cayman Islands.

Board of Directors

See “Item 6. Directors, Senior Management and Employees.”

Ordinary Shares

General. Holders of ordinary shares will have the same rights except for voting and conversion rights. All of our issued and outstanding ordinary shares are fully paid and non-assessable. Certificates representing the ordinary shares are issued in registered form. We may not issue share to bearer. Our shareholders who are non-residents of the Cayman Islands may freely hold and transfer their ordinary shares.

Dividends. The holders of our ordinary shares are entitled to such dividends as may be declared by our board of directors subject to our MAA and the Companies Act. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the

amount recommended by our directors. Our MAA provide that dividends may be declared and paid out of our profits, realized or unrealized, or out of share premium account or as otherwise permitted under the Companies Act. No dividend may be declared and paid unless our directors determine that, immediately after the payment, we will be able to pay our debts as they become due in the ordinary course of business, and we have funds lawfully available for such purpose.

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Classes of Ordinary Shares. Our ordinary shares are divided into Class A ordinary shares and Class B ordinary shares. Except for conversion rights and voting rights, the Class A ordinary shares and Class B ordinary shares shall carry equal rights and rank pari passu with one another, including but not limited to the rights to dividends and other capital distributions.

Conversion. A Class B ordinary share is convertible into one Class A ordinary share at any time by the holder thereof, while Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances. Upon any sale, transfer, assignment or disposition of any Class B ordinary shares by a holder thereof to any “person who is not an affiliate” of such holder, or upon a change of beneficial ownership of any Class B ordinary shares as a result of which any person who is not an affiliate of the holders of such Class B ordinary shares becomes a beneficial owner of such Class B ordinary shares, each of such Class B ordinary shares will be automatically and immediately converted into one Class A ordinary share. For the purpose of the foregoing sentence, an “affiliate” of a given shareholder means any person which, directly or indirectly, controls, is controlled by or is under the common control of such given shareholder. Specifically, affiliates of a given shareholder also include (a) such person’s spouse, parents, children, siblings and other individuals living in the same household; (b) estates, trusts, partnerships and other Persons which directly or indirectly through one or more intermediaries are controlled by the foregoing. For the purposes of this definition, “control” means, in relation to any person, having the power to direct the management or policies of such person, including but not limited to through the ownership of more than 50% of the voting power of such person, through the power to appoint a majority of the members of the board of directors or similar governing body of such person, or through contractual arrangements or otherwise. In addition, In the event that a beneficial owner of Class B ordinary shares is a director, an executive officer of the company, an employee of the company or a subsidiary or consolidated affiliated entity of the company, where such person ceases to be a director, an executive officer of the company or an employee of the company or a subsidiary or consolidated affiliated entity of the company, all such Class B ordinary shares as beneficially owned by such person shall be automatically and immediately converted into an equal number of Class A ordinary shares. For the avoidance of doubt, any sale, transfer, assignment or disposition of any Class B ordinary shares by a holder thereof to any person which is also a beneficial owner of Class B ordinary shares shall not trigger the automatic conversion of such Class B ordinary shares into Class A ordinary shares.

Voting Rights. In respect of all matters subject to a shareholders’ vote, holders of Class A ordinary shares and Class B ordinary shares shall, at all times, vote together as one class on all matters submitted to a vote by the members at any such general meeting. Each Class A ordinary share shall be entitled to one vote on all matters subject to the vote at general meetings of our company, and each Class B ordinary share shall be entitled to three votes on all matters subject to the vote at general meetings (include extraordinary general meetings) of our company. All shareholder resolutions shall be determined by poll and not on a show of hands.

A quorum required for a meeting of shareholders consists of one or more holders of shares which carry a majority of all the issued and outstanding shares entitled to vote at general meetings present in person or by proxy or, if a corporation or other non-natural person, by its duly authorized representative. As a Cayman Islands exempted company, we are not obliged by the Companies Act to call shareholders’ annual general meetings. Our MAA provide that we may (but are not obliged to) in each year hold a general meeting as our annual general meeting in which case we will specify the meeting as such in the notices calling it, and the annual general meeting will be held at such time and place as may be determined by our directors. We, however, will hold an annual shareholders’ meeting during each fiscal year, as required by the Listing Rules at the NYSE. Each general meeting, other than an annual general meeting, shall be an extraordinary general meeting. Shareholders’ annual general meetings and any other general meetings of our shareholders may be called by a majority of our board of directors or our chairman or upon a requisition of shareholders holding at the date of deposit of the requisition not less than one-third of the votes attaching to the issued and outstanding shares entitled to vote at general meetings, in which case the directors are obliged to call such meeting and to put the resolutions so requisitioned to a vote at such meeting; however, our MAA do not provide our shareholders with any right to put any proposals before annual general meetings or extraordinary general meetings not called by such shareholders. Advance notice of at least fifteen (15) calendar days is required for the convening of our annual general meeting and other general meetings unless such notice is waived in accordance with our articles of association.

An ordinary resolution to be passed at a meeting by the shareholders requires the affirmative vote of a simple majority of the votes attaching to the ordinary shares cast by those shareholders entitled to vote who are present in person or by proxy at a general meeting, while a special resolution also requires the affirmative vote of no less than two-thirds of the votes attaching to the ordinary shares cast by those shareholders entitled to vote who are present in person or by proxy at a general meeting. A special resolution will be required for important matters such as a change of name or making changes to our MAA.

In addition, if (i) Dr. Zhou beneficially owns not less than 50% of the ordinary shares he beneficially owned immediately upon the

completion of our initial public offering; and (ii) Dr. Zhou serves as a director or an executive officer of our company, none of the following actions shall be taken without the affirmative vote of the shareholding entity of Dr. Zhou, where he shall have the number of votes equal to the votes of all members who vote for the special resolution, plus one if such matter has not received the approval of the shareholding entity of Dr. Zhou: (i) alter, amend or add to these Articles, to the extent that such alteration, amendment or addition materially adversely varies or abrogates the rights of the shareholding entity of Dr. Zhou; and (ii) liquidation or dissolution of our company.

Transfer of Ordinary Shares. Subject to the restrictions in our MAA as set out below, any of our shareholders may transfer all or any of his or her ordinary shares by an instrument of transfer in the usual or common form or in a form prescribed by the NYSE or any other form approved by our board of directors.

Our board of directors may, in its absolute discretion, decline to register any transfer of any ordinary share which is not fully paid up or on which we have a lien. Our board of directors may also decline to register any transfer of any ordinary share unless:

- the instrument of transfer is lodged with us, accompanied by the certificate for the ordinary shares to which it relates and such other evidence as our board of directors may reasonably require to show the right of the transferor to make the transfer;
- the instrument of transfer is in respect of only one class of shares;
- the instrument of transfer is properly stamped, if required;
- in the case of a transfer to joint holders, the number of joint holders to whom the ordinary share is to be transferred does not exceed four; and
- a fee of such maximum sum as the NYSE may determine to be payable or such lesser sum as our directors may from time to time require is paid to us in respect thereof.

If our directors refuse to register a transfer they shall, within two months after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

The registration of transfers may, after compliance with any notice required of the NYSE, be suspended and the register closed at such times and for such periods as our board of directors may, in their absolute discretion, from time to time determine, *provided* that the registration of transfers shall not be suspended nor the register closed for more than 30 days in any year.

Liquidation. On a return of capital on winding up or otherwise (other than on conversion, redemption or purchase of ordinary shares), if the assets available for distribution amongst our shareholders shall be more than sufficient to repay the whole of the share capital at the commencement of the winding up, the surplus shall be distributed amongst our shareholders in proportion to the par value of the shares held by them at the commencement of the winding up, subject to a deduction from those shares in respect of which there are monies due, of all monies payable to our company for unpaid calls or otherwise. If our assets available for distribution are insufficient to repay all of the whole of the share capital, the assets will be distributed so that the losses are borne by our shareholders in proportion to the par value of the shares held by them. Any distribution of assets or capital to a holder of ordinary share will be the same in any liquidation event.

Calls on Ordinary Shares and Forfeiture of Ordinary Shares. Our board of directors may from time to time make calls upon shareholders for any amounts unpaid on their ordinary shares (whether on account of the nominal value of the ordinary shares or by way of premium or otherwise) in a notice served to such shareholders at least 14 calendar days prior to the specified time of payment. The ordinary shares that have been called upon and remain unpaid are subject to forfeiture.

Redemption, Repurchase and Surrender of Ordinary Shares. We may issue shares on terms that such shares are subject to redemption, on such terms and in such manner as may be determined, before the issue of such shares, by our board of directors. Our company may also repurchase any of our shares provided that the manner and terms of such purchase have been approved by our board of directors or are otherwise authorized by the MAA. Under the Companies Act, the redemption or repurchase of any share may be paid out of our company's profits, share premium account, capital redemption reserve, or out of capital if the company can, immediately following such payment, pay its debts as they fall due in the ordinary course of business. In addition, under the Companies Act, no such share may be redeemed or repurchased (a) unless it is fully paid up, (b) if such redemption or repurchase would result in there being no shares outstanding, or (c) if the company has commenced liquidation. In addition, our company may accept the surrender of any fully paid share for no consideration.

Variations of Rights of Shares. If at any time our share capital is divided into different classes or series of shares, the rights attached to any class or series of shares (unless otherwise provided by the terms of issue of the shares of that class or series), whether or not our company is being wound-up, may be varied with the consent in writing of the holders representing at least two-thirds of the issued shares of

that class or series or with the sanction of a special resolution at a separate meeting of the holders of the shares of the class or series. The rights conferred upon the holders of the shares of any class issued shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be materially adversely varied by the creation or issue of further shares ranking pari passu with such existing class of shares.

Inspection of Books and Records. Holders of our ordinary shares have no general right under Cayman Islands law to inspect or obtain copies of our list of shareholders or our corporate records. However, we will provide our shareholders with annual audited financial statements.

Issuance of Additional Shares. Our MAA authorizes our board of directors to issue additional ordinary shares from time to time as our board of directors shall determine, to the extent of available authorized but unissued shares.

Our MAA also authorizes our board of directors to establish from time to time one or more series of preferred shares and to determine, with respect to any series of preferred shares, the terms and rights of that series, including:

- the designation of the series;
- the number of shares of the series;
- the dividend rights, dividend rates, conversion rights, voting rights; and
- the rights and terms of redemption and liquidation preferences.

Our board of directors may issue preferred shares without action by our shareholders to the extent authorized but unissued. Issuance of these shares may dilute the voting power of holders of ordinary shares.

Anti-Takeover Provisions. Some provisions of our MAA may discourage, delay or prevent a change of control of our company or management that shareholders may consider favorable, including provisions that authorize our board of directors to issue preferred shares in one or more series and to designate the price, rights, preferences, privileges and restrictions of such preferred shares without any further vote or action by our shareholders.

Exempted Company. We are an exempted company with limited liability incorporated under the Companies Act. The Companies Act distinguishes between ordinary resident companies and exempted companies. Any company that is registered in the Cayman Islands but conducts business mainly outside of the Cayman Islands may apply to be registered as an exempted company. The requirements for an exempted company are essentially the same as for an ordinary company except that an exempted company:

- does not have to file an annual return of its shareholders with the Registrar of Companies;
- is not required to open its register of members for inspection;
- does not have to hold an annual general meeting;
- may issue negotiable or bearer shares or shares with no par value;
- may obtain an undertaking against the imposition of any future taxation (such undertakings are usually given for 20 years in the first instance);
- may register by way of continuation in another jurisdiction and be deregistered in the Cayman Islands;
- may register as a limited duration company; and
- may register as a segregated portfolio company.

“Limited liability” means that the liability of each shareholder is limited to the amount unpaid by the shareholder on that shareholder’s shares of the company.

10.C. Material Contracts

We have not entered into any material contracts other than in the ordinary course of business and other than those described in this annual report.

10.D. Exchange Controls

The Cayman Islands currently has no exchange control regulations or currency restrictions.

10.E. Taxation

The following discussion of Cayman Islands, PRC and United States federal income tax consequences of the ownership and disposition of the ADSs or Class A ordinary shares is based upon laws and relevant interpretations thereof in effect as of the date of this annual report, all of which are subject to change. This discussion does not deal with all possible tax consequences relating to the ownership and disposition of the ADSs or Class A ordinary shares, such as the tax consequences under state, local and other tax laws. To the extent that the discussion relates to matters of Cayman Islands tax law, it represents the opinion of Maples and Calder (Hong Kong) LLP, our Cayman Islands counsel. To the extent that the discussion relates to matters of PRC tax law, it represents the opinion of Tian Yuan Law Firm, our PRC legal counsel.

Cayman Islands Taxation

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation, and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us or holders of the ADSs or Class A ordinary shares levied by the government of the Cayman Islands, except for stamp duties which may be applicable on instruments executed in, or after execution brought within the jurisdiction of the Cayman Islands. The Cayman Islands is not party to any double tax treaties that are applicable to any payments made to or by our company. There are no exchange control regulations or currency restrictions in the Cayman Islands.

Payments of dividends and capital in respect of the ADSs or Class A ordinary shares will not be subject to taxation in the Cayman Islands and no withholding will be required on the payment of a dividend or capital to any holder of the ADSs or Class A ordinary shares, nor will gains derived from the disposal of the ADSs or Class A ordinary shares be subject to Cayman Islands income or corporation tax.

No stamp duty is payable in respect of the issue of the shares or an instrument of transfer in respect of a share.

People's Republic of China Taxation

Under the Enterprise Income Tax Law of the PRC, which became effective on January 1, 2008 and most recently amended on December 29, 2018, an enterprise established outside the PRC with “de facto management body” within the PRC is considered a “resident enterprise” for PRC enterprise income tax purposes and is generally subject to a uniform 25% enterprise income tax rate on its worldwide income. Under the Implementing Rules of the Enterprise Income Tax Law, a “de facto management body” is defined as a body that has material and overall management and control over the manufacturing and business operations, personnel and human resources, finances and properties of an enterprise.

In addition, the STA Circular 82 issued by the STA in April 2009 specifies that certain offshore incorporated enterprises controlled by PRC enterprises or PRC enterprise groups will be classified as PRC resident enterprises if the following are located or resident in the PRC: (a) senior management personnel and departments that are responsible for daily production, operation and management; (b) financial and personnel decision making bodies; (c) primary assets, accounting books and records, company seal, minutes of board meetings and shareholders' meetings; and (d) half or more of the senior management or directors having voting rights. Further to STA Circular 82, the STA issued the STA Bulletin 45, which took effect in September 2011, to provide more guidance on the implementation of STA Circular 82. STA Bulletin 45 provides for procedures and administration details of determination on resident status and administration on post-determination matters. Our company is a company incorporated outside the PRC. As a holding company, its primary assets are its ownership interests in its subsidiaries, and its primary assets are located, and its records (including the resolutions of its board of directors and the resolutions of its shareholders) are maintained, outside the PRC. As such, we do not believe that our company meets all of the conditions above or is a PRC resident enterprise for PRC tax purposes. For the same reasons, we believe our other entities outside of China are not PRC resident enterprises either. However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “de facto management body.” There can be no assurance that the PRC government will ultimately take a view that is consistent with us. If the PRC tax authorities determine that our Cayman Islands holding company is a PRC resident enterprise for PRC enterprise income tax purposes, a number of unfavorable PRC tax consequences could follow. For example, a 10% withholding tax would be imposed on dividends we pay to our non-PRC enterprise shareholders (including the ADS holders). In addition, non-resident enterprise shareholders (including the ADS holders) may be subject to PRC tax at a rate of 10% on gains realized on the sale or other disposition of ADSs or Class A ordinary shares, if such gains are treated as derived from a PRC source. Furthermore, if we are deemed a PRC resident enterprise, dividends paid to our non-PRC individual shareholders (including the ADS holders) and any gain realized on the

transfer of ADSs or Class A ordinary shares by such shareholders may be subject to PRC individual income tax at a rate of 20% (which, in the case of dividends, may be withheld at source by us). These rates may be reduced by an applicable tax treaty, but it is unclear whether non-PRC shareholders of our company would, in practice, be able to obtain the benefits of any tax treaties between their country of tax residence and the PRC in the event that we are treated as a PRC resident enterprise. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Doing Business in China—If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders.”

Material U.S. Federal Income Tax Considerations

The following are material U.S. federal income tax consequences to the U.S. Holders described below of owning and disposing of the ADSs or Class A ordinary shares, but this discussion does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a particular person's decision to hold the ADSs or Class A ordinary shares.

This discussion applies only to a U.S. Holder that holds the ADSs or the underlying Class A ordinary shares as capital assets for U.S. federal income tax purposes. In addition, it does not describe all of the tax consequences that may be relevant in light of a U.S. Holder's particular circumstances, including the alternative minimum tax, the Medicare contribution tax on net investment income and tax consequences applicable to U.S. Holders subject to special rules, such as:

- certain financial institutions;
- insurance companies;
- regulated investment companies;
- dealers or traders in securities that use a mark-to-market method of tax accounting;
- persons holding ADSs or Class A ordinary shares as part of a straddle, integrated or similar transaction;
- persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
- entities classified as partnerships for U.S. federal income tax purposes and their partners;
- tax-exempt entities, "individual retirement accounts" or "Roth IRAs";
- persons who acquired our ADSs or Class A ordinary shares pursuant to the exercise of an employee stock option or otherwise as compensation;
- persons that own or are deemed to own ADSs or Class A ordinary shares representing 10% or more of our voting power or value; or
- persons holding ADSs or Class A ordinary shares in connection with a trade or business outside the United States.

If a partnership (or other entity that is classified as a partnership for U.S. federal income tax purposes) owns ADSs or Class A ordinary shares, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships owning ADSs or Class A ordinary shares and their partners should consult their tax advisers as to their particular U.S. federal income tax consequences of owning and disposing of ADSs or Class A ordinary shares.

This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, administrative pronouncements, judicial decisions, final, temporary and proposed Treasury regulations, and the income tax treaty between the United States and the PRC, or the Treaty, all as of the date hereof, any of which is subject to change, possibly with retroactive effect. This discussion assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms.

As used herein, a "U.S. Holder" is a person that is, for U.S. federal income tax purposes, a beneficial owner of ADSs or Class A ordinary shares and:

- a citizen or individual resident of the United States;
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

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In general, a U.S. Holder that owns ADSs will be treated as the owner of the underlying Class A ordinary shares represented by those ADSs for U.S. federal income tax purposes. Accordingly, no gain or loss will be recognized if a U.S. Holder exchanges ADSs for the underlying Class A ordinary shares represented by those ADSs.

This discussion does not address the effects of any state, local or non-U.S. tax laws, or any U.S. federal taxes other than income taxes (such as U.S. federal estate or gift tax consequences). U.S. Holders should consult their tax advisers concerning the U.S. federal, state, local and non-U.S. tax consequences of owning and disposing of ADSs or Class A ordinary shares in their particular circumstances.

Taxation of Distributions

This discussion is subject to the discussion under “— *Passive Foreign Investment Company Rules*” below.

Distributions paid on the ADSs or Class A ordinary shares, other than certain pro rata distributions of ADSs or Class A ordinary shares, will be treated as dividends to the extent paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Because we do not maintain calculations of our earnings and profits under U.S. federal income tax principles, it is expected that distributions generally will be reported to U.S. Holders as dividends. Dividends will not be eligible for the dividends-received deduction generally available to U.S. corporations under the Code. Subject to applicable limitations, dividends paid by “qualified foreign corporations” to certain non-corporate U.S. investors are taxable at the favorable rates applicable to long-term capital gains. A non-U.S. corporation is treated as a qualified foreign corporation with respect to dividends paid on stock that is readily tradable on a securities market in the United States, such as the NYSE, where the ADSs are listed. The favorable rate does not apply if the non-U.S. corporation is a PFIC (or is treated as a PFIC with respect to the relevant U.S. Holder) for the taxable year in which the dividend is paid or the preceding taxable year. Non-corporate U.S. Holders should consult their tax advisers to determine whether the favorable rate will apply to dividends they receive and whether they are subject to any special rules that limit their ability to be taxed at this favorable rate.

Dividends will be included in a U.S. Holder’s income on the date of the U.S. Holder’s, or in the case of ADSs, the depositary’s, receipt. The amount of any dividend income paid in foreign currency will be the U.S. dollar amount calculated by reference to the spot rate in effect on the date of receipt, regardless of whether the payment is in fact converted into U.S. dollars on such date. If the dividend is converted into U.S. dollars on the date of receipt, a U.S. Holder generally should not be required to recognize foreign currency gain or loss in respect of the amount received. A U.S. Holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt.

Dividends will be treated as foreign-source income for foreign tax credit purposes. As described in “—People’s Republic of China Taxation,” dividends paid by us may be subject to PRC withholding tax. For U.S. federal income tax purposes, the amount of the dividend income will include any amounts withheld in respect of PRC withholding tax. Subject to applicable limitations that vary depending upon the U.S. Holder’s circumstances and the discussion below regarding certain Treasury regulations, PRC taxes withheld from dividend payments (at a rate not exceeding the applicable rate provided in the Treaty if the U.S. Holder is eligible for Treaty benefits) generally will be creditable against a U.S. Holder’s U.S. federal income tax liability.

The rules governing foreign tax credits are complex, and U.S. Holders should consult their tax advisers regarding the creditability of foreign taxes in their particular circumstances. For example, Treasury regulations provide that, in the absence of an election to apply the benefits of an applicable income tax treaty, in order for non-U.S. income taxes to be creditable, the relevant non-U.S. income tax rules must be consistent with certain U.S. federal income tax principles, and we have not determined whether the PRC income tax system meets this requirement. In lieu of claiming a credit, a U.S. Holder may elect to deduct creditable PRC taxes in computing its taxable income, subject to applicable limitations. An election to deduct foreign taxes instead of claiming foreign tax credits applies to all creditable foreign taxes paid or accrued in the relevant taxable year.

Sale or Other Taxable Disposition of ADSs or Class A Ordinary Shares

This discussion is subject to the discussion under “— *Passive Foreign Investment Company Rules*” below.

A U.S. Holder will generally recognize capital gain or loss on a sale or other taxable disposition of ADSs or Class A ordinary shares in an amount equal to the difference between the amount realized on the sale or disposition and the U.S. Holder’s tax basis in the ADSs or Class A ordinary shares disposed of, in each case as determined in U.S. dollars. Such gain or loss will be long-term capital gain or loss if, at the time

of the sale or disposition, the U.S. Holder has owned the ADSs or Class A ordinary shares for more than one year. Long-term capital gains recognized by non-corporate U.S. Holders are subject to tax rates that are lower than those applicable to ordinary income. The deductibility of capital losses is subject to limitations.

As described in “—People’s Republic of China Taxation,” gains on the sale of ADSs or Class A ordinary shares may be subject to PRC taxes. Under the Code, capital gains of U.S. persons are generally treated as U.S.-source income. However, a U.S. Holder may be able to elect to treat the gain as foreign-source income under the Treaty and claim foreign tax credit in respect of any PRC tax on dispositions. Treasury regulations generally preclude a U.S. Holder from claiming a foreign tax credit with respect to PRC income taxes on gains from dispositions of ADSs or Class A ordinary shares unless the U.S. Holder is eligible for, and elects to apply, the benefits of the Treaty. It is possible that any PRC taxes on disposition gains that are not creditable may either be deductible or reduce the amount realized on the disposition. The rules governing foreign tax credits and deductibility of foreign taxes are complex. U.S. Holders should consult their tax advisers regarding the consequences of the imposition of any PRC tax on disposition gains, including the Treaty’s resourcing rule, any reporting requirements with respect to a Treaty-based return position and the creditability or deductibility of the PRC tax on disposition gains in their particular circumstances (including any applicable limitations).

Passive Foreign Investment Company Rules

In general, a non-U.S. corporation is a PFIC for U.S. federal income tax purposes for any taxable year in which (i) 50% or more of the average value of its assets (generally determined on a quarterly basis) consists of assets that produce, or are held for the production of, passive income, or (ii) 75% or more of its gross income consists of passive income. For purposes of the above calculations, a non-U.S. corporation that owns (or is treated as owning for U.S. federal income tax purposes), directly or indirectly, at least 25% by value of the shares of another corporation is treated as if it held its proportionate share of the assets of the other corporation and received directly its proportionate share of the income of the other corporation. Passive income generally includes dividends, interest, rents, royalties and certain gains. Cash is a passive asset for these purposes. Goodwill is generally characterized as an active asset to the extent it is associated with business activities that produce active income.

Based on the composition of our income and assets and the value of our assets, including goodwill, which is based on the price of the ADSs, we believe that we were not a PFIC for our 2022 taxable year. However, our PFIC status for any taxable year is an annual determination that will depend on the composition of our income and assets and the value of our assets from time to time (which may be determined, in part, by reference to the market price of the ADSs, which has been volatile). Because we hold a substantial amount of cash and financial investments, fluctuations in the market price of our ADSs could cause us to become a PFIC for the current or any future taxable year if the value of our assets (including goodwill) is determined by reference to our market capitalization. Moreover, it is not entirely clear how the contractual arrangements between us and the VIEs will be treated for purposes of the PFIC rules, and we may be or become a PFIC if the VIEs are not treated as owned by us for these purposes. In addition, the extent to which our goodwill should be characterized as an active asset is not entirely clear. In addition, the composition of our income and assets may change over time. For these reasons, there can be no assurance that we will not be a PFIC for any taxable year.

If we were a PFIC for any taxable year and any entity in which we own or are deemed to own equity interests (including our subsidiaries and the VIEs) were also a PFIC (any such entity, a “Lower-tier PFIC”), U.S. Holders would be deemed to own a proportionate amount (by value) of the shares of each Lower-tier PFIC and would be subject to U.S. federal income tax according to the rules described in the next paragraph on (i) certain distributions by a Lower-tier PFIC and (ii) dispositions of shares of Lower-tier PFICs, in each case as if the U.S. Holders held such shares directly, even though the U.S. Holders did not receive any proceeds of those distributions or dispositions.

In general, if we were a PFIC for any taxable year during which a U.S. Holder held ADSs or Class A ordinary shares, gain recognized by such U.S. Holder on a sale or other disposition (including certain pledges) of its ADSs or Class A ordinary shares would be allocated ratably over its holding period. The amounts allocated to the taxable year of the sale or disposition and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, for that taxable year, and an interest charge would be imposed on the resulting tax liability for each such year. Furthermore, to the extent that distributions received by a U.S. Holder in any year on its ADSs or Class A ordinary shares exceeded 125% of the average of the annual distributions on the ADSs or Class A ordinary shares received during the preceding three years or the U.S. Holder’s holding period, whichever is shorter, such distributions would be subject to taxation in the same manner. If we were a PFIC for any taxable year during which a U.S. Holder owned ADSs or Class A ordinary shares, we would generally continue to be treated as a PFIC with respect to the U.S. Holder for all succeeding years during which the U.S. Holder owned such ADSs or Class A ordinary shares, even if we ceased to meet the threshold requirements for PFIC status, unless the U.S. Holder made a timely “deemed sale” election, in which case any gain on the deemed sale would be taxed under the PFIC rules described above.

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Alternatively, if we were a PFIC and if the ADSs were “regularly traded” on a “qualified exchange,” a U.S. Holder could make a mark-to-market election with respect to the ADSs that would result in tax treatment different from the general tax treatment for PFICs described in the preceding paragraph. The ADSs would be treated as regularly traded for any calendar year in which more than a *de minimis* quantity of the ADSs were traded on a qualified exchange on at least 15 days during each calendar quarter. The NYSE, on which the ADSs are listed, is a qualified exchange for this purpose. If a U.S. Holder makes a mark-to-market election, the U.S. Holder generally will recognize as ordinary income any excess of the fair market value of the ADSs at the end of each taxable year over their adjusted tax basis, and will recognize an ordinary loss in respect of any excess of the adjusted tax basis of the ADSs over their fair market value at the end of the taxable year (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). If a U.S. Holder makes the election, the U.S. Holder's tax basis in the ADSs will be adjusted to reflect the income or loss amounts recognized. Any gain recognized on the sale or other disposition of ADSs in a year in which we are a PFIC will be treated as ordinary income, and any loss will be treated as an ordinary loss (but only to the extent of the net amount of income previously included as a result of the mark-to-market election, with any excess treated as capital loss). If a U.S. Holder makes the mark-to-market election, distributions paid on ADSs will be treated as discussed under “—Taxation of Distributions” above. U.S. Holders should consult their tax advisers regarding the availability and advisability of making a mark-to-market election in their particular circumstances. In particular, U.S. Holders should consider carefully the impact of a mark-to-market election with respect to their ADSs given that we may have Lower-tier PFICs for which a mark-to-market election may not be available.

We do not intend to provide information necessary for U.S. Holders to make “qualified electing fund” elections, which if available would result in tax treatment different from the general tax treatment for PFICs described above.

If we were a PFIC for any taxable year during which a U.S. Holder owned any ADSs or Class A ordinary shares, the U.S. Holder would generally be required to file annual reports with the Internal Revenue Service. U.S. Holders should consult their tax advisers regarding the determination of whether we are a PFIC for any taxable year and the potential application of the PFIC rules to their ownership of ADSs or Class A ordinary shares.

Information Reporting and Backup Withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries may be subject to information reporting and backup withholding, unless (i) the U.S. Holder is a corporation or other “exempt recipient” and (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against such U.S. Holder's U.S. federal income tax liability and may entitle such U.S. Holder to a refund, provided that the required information is timely furnished to the Internal Revenue Service.

Certain U.S. Holders who are individuals (or certain specified entities) may be required to report information relating to their ownership of ADSs or Class A ordinary shares or non-U.S. accounts through which ADSs or Class A ordinary shares are held. U.S. Holders should consult their tax advisers regarding their reporting obligations with respect to ADSs and Class A ordinary shares.

10.F. Dividends and Paying Agents

Not applicable.

10.G. Statement by Experts

Not applicable.

10.H. Documents on Display

We previously filed with the SEC registration statement on Form F-1 (File Number 333-234009), as amended to register our Class A ordinary shares in relation to our initial public offering. We also filed with the SEC related registration statement on Form F-6 (File Number 333-234194) to register the ADSs representing our Class A ordinary shares.

We are subject to the periodic reporting and other informational requirements of the Exchange Act as applicable to foreign private

issuers. Under the Exchange Act, we are required to file reports and other information with the SEC. Specifically, we are required to file annually a Form 20-F within four months after the end of each fiscal year. Copies of reports and other information, when so filed with the SEC, can be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street N E, Room 1580, Washington, D.C. 20549. You can request copies of these documents, upon payment of a duplicating fee, by writing to the SEC. The public may obtain information regarding the Washington, D.C. Public Reference Room by calling the Commission at 1-800-SEC-0330. The SEC also maintains a web site at www.sec.gov that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR system. As a foreign private issuer, we are exempt from the rules of the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and our executive officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act.

We will furnish The Bank of New York Mellon, the depositary of the ADSs, with our annual reports, which will include a review of operations and annual audited consolidated financial statements prepared in conformity with U.S. GAAP, and all notices of shareholders' meetings and other reports and communications that are made generally available to our shareholders. The depositary will make such notices, reports and communications available to holders of ADSs and, upon our request, will mail to all record holders of ADSs the information contained in any notice of a shareholders' meeting received by the depositary from us.

10.I. Subsidiary Information.

Not applicable.

10.J. Annual Report to Seucirt Holders

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest rate risk

Our exposure to interest rate risk primarily relates to the interest income generated by excess cash, which is mostly held in interest-bearing bank deposits. We have not used any derivative financial instruments to manage our interest risk exposure. Interest-earning instruments carry a degree of interest rate risk. We have not been exposed, nor do we anticipate being exposed, to material risks due to changes in interest rates. However, our future interest income may be lower than expected due to changes in market interest rates.

Foreign exchange risk

Substantially all of our net revenues and expenses are denominated in Renminbi. We do not believe that we currently have any significant direct foreign exchange risk and have not used any derivative financial instruments to hedge exposure to such risk. Although our exposure to foreign exchange risks should be limited in general, the value of your investment in the ADSs will be affected by the exchange rate between U.S. dollar and Renminbi because the value of our business is effectively denominated in RMB, while the ADSs representing our Class A ordinary shares will be traded in U.S. dollars.

The value of the Renminbi against the U.S. dollar and other currencies is affected by changes in China's political and economic conditions and by China's foreign exchange policies, among other things. In July 2005, the PRC government changed its decades-old policy of pegging the value of the Renminbi to the U.S. dollar, and the Renminbi appreciated more than 20% against the U.S. dollar over the following three years. Between July 2008 and June 2010, this appreciation subsided and the exchange rate between the Renminbi and the U.S. dollar remained within a narrow band. Since June 2010, the Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. While appreciating approximately by 7% against the U.S. dollar in 2017, the Renminbi in 2018 and 2019 depreciated approximately by 5% and 1% against the U.S. dollar, respectively. Since October 1, 2016, the RMB has joined the International Monetary Fund's basket of currencies that make up the Special Drawing Right, along with the U.S. dollar, the Euro, the Japanese yen and the British pound. With the development of the foreign exchange market and progress towards interest rate liberalization and Renminbi internationalization, the PRC government may in the future announce further changes to the exchange rate system and there is no guarantee that the RMB will not appreciate or depreciate significantly in value against the U.S. dollar in the future. It is difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollar in the future.

To the extent that we need to convert U.S. dollars into Renminbi for our operations, appreciation of Renminbi against the U.S. dollar would reduce the Renminbi amount we receive from the conversion. Conversely, if we decide to convert Renminbi into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs, servicing our outstanding debt, or for other business purposes, appreciation of the U.S. dollar against the Renminbi would reduce the U.S. dollar amounts available to us.

Inflation risk

Since our inception, inflation in China has not materially impacted our results of operations. According to the National Bureau of Statistics

of China, the year-over-year percent changes in the consumer price index for December 2020, 2021 and 2022 were increases of 0.2%, 1.5% and 1.8%, respectively. Although we have not in the past been materially affected by inflation since our inception, we can provide no assurance that we will not be affected in the future by higher rates of inflation in China.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

12.A. Debt Securities

Not applicable.

12.B. Warrants and Rights

Not applicable.

12.C. Other Securities

Not applicable.

12.D. American Depositary Shares

Persons depositing or withdrawing shares or ADS holders must pay:

- US\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)
- US\$0.05 (or less) per ADS
- A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs
- US\$0.05 (or less) per ADS per calendar year
- Registration or transfer fees
- Expenses of the depositary
- Taxes and other governmental charges the depositary or the custodian has to pay on any ADSs or shares underlying ADSs, such as stock transfer taxes, stamp duty or withholding taxes
- Any charges incurred by the depositary or its agents for servicing the deposited securities

For:

- Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property
- Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates
- Any cash distribution to ADS holders
- Distribution of securities distributed to holders of deposited securities (including rights) that are distributed by the depositary to ADS holders
- Depositary services
- Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares
- Cable and facsimile transmissions (when expressly provided in the deposit agreement)
- Converting foreign currency to U.S. dollars
- As necessary
- As necessary

The depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may collect its annual fee for depositary services by deduction from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The depositary may collect any of its fees by deduction from any cash distribution payable (or by selling a portion of securities or other property distributable) to ADS holders that are obligated to pay those fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

From time to time, the depositary may make payments to us to reimburse us for costs and expenses generally arising out of

establishment and maintenance of the ADS program, waive fees and expenses for services provided to us by the depositary or share revenue from the fees collected from ADS holders. In 2020, 2021 and 2022, we received nil, US\$0.2 million and nil, after deduction of applicable U.S. taxes, from the depositary for our expenses incurred in connection with investor relationship programs related to the ADS facility. In performing its duties under the deposit agreement, the depositary may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the depositary and that may earn or share fees, spreads or commissions.

The depositary may convert currency itself or through any of its affiliates and, in those cases, acts as principal for its own account and not as agent, adviser, broker or fiduciary on behalf of any other person and earns revenue, including, without limitation, transaction spreads, that it will retain for its own account. The revenue is based on, among other things, the difference between the exchange rate assigned to the currency conversion made under the deposit agreement and the rate that the depositary or its affiliate receives when buying or selling foreign currency for its own account. The depositary makes no representation that the exchange rate used or obtained in any currency conversion under the deposit agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to ADS holders, subject to the depositary's obligations under the deposit agreement. The methodology used to determine exchange rates used in currency conversions is available upon request.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

14.A. – 14.D. Material Modifications to the Rights of Security Holders

See “Item 10. Additional Information” for a description of the rights of shareholders, which remain unchanged.

14.E. Use of Proceeds

The following “Use of Proceeds” information relates to the registration statement on Form F-1 (File No. 333-234009), as amended, which registered 5,600,000 Class A ordinary shares represented by 5,600,000 ADSs issued and sold by us, at a public offering price of US\$17.00 per ADS for a total offering size of approximately US\$95.2 million, and was declared effective by the SEC on October 24, 2019, for our initial public offering, which closed in October 2019. Citigroup Global Markets Inc., Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC were the representatives of the underwriters.

The total expenses incurred for our company's account in connection with our initial public offering were approximately US\$7.0 million, which included US\$6.7 million in underwriting discounts and commissions for the initial public offering and approximately US\$0.3 million in other costs and expenses for our initial public offering. We received net proceeds of approximately US\$213.2 million from our initial public offering and the concurrent private placements to Orbis in October 2019. None of the transaction expenses included payments to directors or officers of our company or their associates, persons owning more than 10% or more of our equity securities or our affiliates. None of the net proceeds from the initial public offering and the concurrent private placements to Orbis were paid, directly or indirectly, to any of our directors or officers or their associates, persons owning 10% or more of our equity securities or our affiliates.

As of the date of this annual report, we have used all of the proceeds from our initial public offering and the concurrent private placements to Orbis. Such proceeds have been used primarily for investing in technology and product development, expanding our branding and marketing efforts, further growing our user base and for other general corporate purpose.

The following “Use of Proceeds” information relates to the registration statement on Form F-3, as amended (File No. 333-252936) that became effective immediately upon filing on February 10, 2021, and the applicable prospectus supplements in relation to our offering of 7,000,000 ADSs, each representing one Class A ordinary share of our company, at a public offering price of US\$34.00 per ADS for a total offering size of approximately US\$238.0 million for our follow-on offering, which closed in February, 2021. Citigroup Global Markets Inc., Credit Suisse Securities (USA) LLC, J.P. Morgan Securities LLC and China International Capital Corporation Hong Kong Securities Limited were the representatives of the underwriters.

The total expenses incurred for our company's account in connection with our follow-on offering was approximately US\$6.4 million, which included US\$4.8 million in underwriting discounts and commissions for the follow-on offering and approximately US\$1.6 million in other

costs and expenses for our follow-on offering. We received net proceeds of approximately US\$231.6 million from our follow-on offering. None of the transaction expenses included payments to directors or officers of our company or their associates, persons owning more than 10% or more of our equity securities or our affiliates. None of the net proceeds from the follow-on offering were paid, directly or indirectly, to any of our directors or officers or their associates, persons owning 10% or more of our equity securities or our affiliates.

As of the date of this annual report, we have used all of the net proceeds received from the follow-on offering. Such proceeds have been used primarily for investing in technology and product development, expanding our branding and marketing efforts, further growing our user base and for other general corporate purpose.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and vice president of finance, has performed an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this report, as required by Rule 13a-15(b) under the Exchange Act.

Based upon that evaluation, our management has concluded that, as of December 31, 2022, our disclosure controls and procedures were effective in ensuring that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act was recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and vice president of finance, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. As required by Rule 13a-15(c) of the Exchange Act, our management conducted an evaluation of our company's internal control over financial reporting as of December 31, 2022 based on the framework in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2022.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness of our internal control over financial reporting to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Attestation Report of the Registered Public Accounting Firm

PricewaterhouseCoopers Zhong Tian LLP has audited the effectiveness of our internal control over financial reporting as of December 31, 2022 as stated in its report, which appears on page F-2 of this annual report on Form 20-F.

Changes in Internal Control over Financial Reporting

There were no changes in our internal controls over financial reporting that occurred during the period covered by this annual report on Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16.A. AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Mr. Jimmy Lai, an independent director and the chairperson of our audit committee, qualifies as an "audit committee financial expert" within the meaning of the SEC rules and possesses financial sophistication within the meaning of Listing Rules of the NYSE. Mr. Jimmy Lai satisfies the "independence" requirements of Rule 10A-3 under the Securities Exchange Act of 1934, as amended, and Section 303A of the Corporate Governance Rules of the NYSE.

ITEM 16.B. CODE OF ETHICS

Our board of directors has adopted a code of business conduct and ethics that applies to all of our directors, officers, employees, including certain provisions that specifically apply to our principal executive officer, principal financial officer, principal accounting officer or controller, and any other persons who perform similar functions for us. We have filed our code of business conduct and ethics, as amended, as Exhibit 11.1 to this annual report on Form 20-F and posted a copy of our code of business conduct and ethics on our website at <https://ir.youdao.com>. We hereby undertake to provide to any person without charge, a copy of our code of business conduct and ethics within ten working days after we receive such person's written request.

ITEM 16.C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Auditor Fees

The following table sets forth the aggregate fees by categories specified below in connection with certain professional services rendered by PricewaterhouseCoopers Zhong Tian LLP, our independent registered public accounting firm, for the periods indicated.

	Year Ended December 31,	
	2021	2022
	RMB	RMB
	(in thousands)	
Services		
Audit Fees ⁽¹⁾	8,500	8,200
Other Fees ⁽²⁾	2,832	150
Total	11,332	8,350

- (1) *Audit Fees.* Audit fees mean the aggregate fees billed in each of the fiscal years listed for professional services rendered by our principal auditors for the audit of our annual consolidated financial statements and assistance with and review of documents filed with the SEC.
- (2) *Other Fees.* Other fees mean fees incurred from professional services related to non-audit services.

The policy of our audit committee is to pre-approve all audit and non-audit services provided by PricewaterhouseCoopers Zhong Tian LLP, our independent registered public accounting firm, including audit services and other services as described above, other than those for *de minimus* services which are approved by the audit committee prior to the completion of the audit.

ITEM 16.D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

ITEM 16.E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

On August 31, 2021, our controlling shareholder, NetEase, Inc. adopted a share purchase program of up to US\$50.0 million of our outstanding ADSs for a period not to exceed 36 months beginning on September 2, 2021 (the “2021 Share Purchase Program”). Under the terms of this program, NetEase may purchase our ADSs in open-market transactions on the New York Stock Exchange. The purchase program may be suspended or discontinued by NetEase at any time. As of March 31, 2023, a total of approximately 2.7 million ADSs have been purchased under this program. The table below is a summary of the shares purchased under this program from April 1, 2022 to March 31, 2023. All shares were purchased in the open market pursuant to the share purchase program announced on August 31, 2021.

Period	Total Number of ADSs Purchased	Average Price Paid Per ADS	Total Number of ADSs Purchased as Part of the Publicly Announced Plan	Approximate Dollar Value of ADSs that May Yet Be Purchased Under the Plan
April 2022	190,000	7.18	190,000	34,561,951
May 2022	199,500	5.86	199,500	33,392,270
June 2022	199,500	5.44	199,500	32,307,760
July 2022	190,000	4.71	190,000	31,413,404
August 2022	218,500	5.03	218,500	30,315,346
September 2022	198,750	5.15	198,750	29,292,721
October 2022	198,170	4.20	198,170	28,459,451

November 2022	152,000	3.56	152,000	27,918,203
December 2022	—	—	—	27,918,203
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	Total Number of ADSs Purchased	Average Price Paid Per ADS	Total Number of ADSs Purchased as Part of the Publicly Announced Plan	Approximate Dollar Value of ADSs that May Yet Be Purchased Under the Plan
January 2023	—	—	—	27,918,203
February 2023	—	—	—	27,918,203
March 2023	—	—	—	27,918,203
Total	1,546,420	5.18	1,546,420	

On November 17, 2022, our board of directors authorized us to adopt a share repurchase program for up to US\$20.0 million of our Class A ordinary shares (including in the form of ADSs) during a period of up to 36 months (the “2022 Share Repurchase Program”). Repurchases under the company’s share repurchase program, if adopted, may be made from time to time on the open market at prevailing market prices, in open-market transactions, privately negotiated transactions or block trades, and/or through other legally permissible means, depending on market conditions and in accordance with the applicable rules and regulations. The timing and conditions of the share repurchases will be subject to various factors including the requirements under Rule 10b-18 and Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. As of March 31, 2023, a total of approximately 1.8 million Class A ordinary shares had been purchased under this program.

The table below is a summary of the shares purchased under this program from November 17, 2022 to March 31, 2023. All shares were purchased in the open market pursuant to the share purchase program announced on November 17, 2022.

Period	Total Number of ADSs Purchased	Average Price Paid Per ADS	Total Number of ADSs Purchased as Part of the Publicly Announced Plan	Approximate Dollar Value of ADSs that May Yet Be Purchased Under the Plan
November 2022	221,437	3.82	221,437	19,154,878
December 2022	952,749	5.30	952,749	14,101,857
January 2023	580,825	7.06	580,825	10,000,002
February 2023	—	—	—	10,000,002
March 2023	—	—	—	10,000,002
Total	1,755,011	5.70	1,755,011	

ITEM 16.F. CHANGE IN REGISTRANT’S CERTIFYING ACCOUNTANT

Not applicable.

ITEM 16.G. CORPORATE GOVERNANCE

As a Cayman Islands exempted company listed on the NYSE, we are subject to corporate governance listing standards of NYSE. However, NYSE rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the NYSE corporate governance listing standards. We currently intend to follow Cayman Islands corporate governance practices in lieu of the corporate governance requirements of the NYSE that listed companies must have a majority of independent directors and that the audit committee consist of at least three members. In addition, we relied on home country practice exemption with respect to Section 3.02.00 of the NYSE Listed Company Manual, which requires a NYSE-listed company to hold an annual shareholders’ meeting during each fiscal year, and we did not hold an annual shareholders’ meeting in 2022. To the extent that we choose to follow home country practice in the future, our

shareholders may be afforded less protection than they otherwise would enjoy under NYSE corporate governance listing standards applicable to U.S. domestic issuers. See “Item 3. Key Information—3.D. Risk Factors—Risks Related to Our Class A Ordinary Shares and Our ADSs—As an exempted company incorporated in the Cayman Islands, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from the NYSE corporate governance listing standards. These practices may afford less protection to shareholders than they would enjoy if we complied fully with the NYSE corporate governance listing standards.”

ITEM 16.H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 16.I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

On May 26, 2022, we were conclusively identified by the SEC under the HFCAA as having filed audit reports issued by a registered public accounting firm that cannot be inspected or investigated completed by the PCAOB in connection with our filing of our annual report on the Form 20-F for the fiscal year ended December 31, 2021. Our registered public accounting firm is headquartered in mainland China.

As of the date of this annual report and to our best knowledge:

- (i). none of the Company's shares are owned by governmental entities in the jurisdiction in which it is incorporated or otherwise organized and none of the shares of our material operating entities are owned by governmental entities in mainland China;
- (ii). none of the governmental entities in the applicable foreign jurisdiction with respect to our registered public accounting firm have a controlling financial interest in us or any of our material operating entities;
- (iii). none of the members of our board of directors or the board of directors of our material operating entities is an official of the Chinese Communist Party; and
- (iv). the currently effective Articles of Association of our company or equivalent organizing documents of our material operating entities do not contain any charter of the Chinese Communist Party, including the text of any such articles or organizing documents.

ITEM 16.J. INSIDER TRADING POLICIES

Not Applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

We have elected to provide financial statements pursuant to Item 18.

ITEM 18. FINANCIAL STATEMENTS

The consolidated financial statements of Youdao, Inc. are included at the end of this annual report.

ITEM 19. EXHIBITS

Exhibit Number	Description of Document
1.1	Fourth Amended and Restated Memorandum and Articles of Association of the Registrant, as currently in effect (incorporated herein by reference to Exhibit 3.2 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
2.1	Form of American Depositary Receipt (included in Exhibit 2.3)
2.2	Registrant's Specimen Certificate for Class A Ordinary Shares (incorporated herein by reference to Exhibit 4.2 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on October 15, 2019)
2.3	Form of Deposit Agreement among the Registrant, the depositary and holders of the American Depositary Shares (incorporated herein by reference to Exhibit 4.3 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on October 15, 2019)
2.4	Description of Registrant's Securities (incorporated herein by reference to Exhibit 2.4 to the annual report on Form 20-F (File No. 001-39087), filed with the SEC on April 29, 2020)
4.1	The First Amended and Restated 2015 Share Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.2*	The 2023 Share Incentive Plan
4.3	Form of Indemnification Agreement with the Registrant's directors (incorporated herein by reference to Exhibit 10.2 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.4	Form of Employment Agreement between the Registrant and an executive officer of the Registrant (incorporated herein by reference to Exhibit 10.3 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.5	Shareholders Agreement by and among the Registrant, NetEase, Inc. and certain other parties named therein amended and restated as of September 25, 2019 (incorporated herein by reference to Exhibit 10.4 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.6	Subscription Agreement for Series A Preferred Shares by and among the Registrant, TH EDU CAPITAL FUND I LP, NetEase, Inc., Net Depth Holdings, Inc. dated April 12, 2018 (incorporated herein by reference to Exhibit 10.5 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.7	Subscription Agreement for Series A Preferred Shares by and among the Registrant, GOOD SPIRIT LIMITED, NetEase, Inc., Net Depth Holdings, Inc. dated April 12, 2018 (incorporated herein by reference to Exhibit 10.6 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)

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Exhibit Number	Description of Document
4.8	<u>Cooperation Agreement dated July 1, 2015 between NetEase Youdao Information Technology (Beijing) Co., Ltd. and Beijing NetEase Youdao Computer System Co., Ltd. (incorporated herein by reference to Exhibit 10.7 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.9	<u>Shareholder Voting Right Trust Agreement dated September 26, 2016 between NetEase Youdao Information Technology (Beijing) Co., Ltd. and William Lei Ding (incorporated herein by reference to Exhibit 10.8 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.10	<u>Loan Agreement dated September 26, 2016 between William Lei Ding and NetEase Youdao Information Technology (Beijing) Co., Ltd. (incorporated herein by reference to Exhibit 10.9 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.11	<u>Equity Pledge Agreement dated September 26, 2016 between William Lei Ding and NetEase Youdao Information Technology (Beijing) Co., Ltd. (incorporated herein by reference to Exhibit 10.10 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.12	<u>Exclusive Purchase Option Agreement dated September 26, 2016 among William Lei Ding, NetEase Youdao Information Technology (Beijing) Co., Ltd. and Beijing NetEase Youdao Computer System Co., Ltd. (incorporated herein by reference to Exhibit 10.11 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.13	<u>Operating Agreement dated September 26, 2016 among NetEase Youdao Information Technology (Beijing) Co., Ltd., Beijing NetEase Youdao Computer System Co., Ltd. and William Lei Ding (incorporated herein by reference to Exhibit 10.12 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.14	<u>Shareholder Voting Right Trust Agreement dated November 20, 2017 between NetEase Youdao Information Technology (Beijing) Co., Ltd. and Feng Zhou (incorporated herein by reference to Exhibit 10.13 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.15	<u>Loan Agreement dated November 20, 2017 between Feng Zhou and NetEase Youdao Information Technology (Beijing) Co., Ltd. (incorporated herein by reference to Exhibit 10.14 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.16	<u>Equity Pledge Agreement dated November 20, 2017 between Feng Zhou and NetEase Youdao Information Technology (Beijing) Co., Ltd. (incorporated herein by reference to Exhibit 10.15 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.17	<u>Exclusive Purchase Option Agreement dated November 20, 2017 among NetEase Youdao Information Technology (Beijing) Co., Ltd., Feng Zhou and Beijing NetEase Youdao Computer System Co., Ltd. (incorporated herein by reference to Exhibit 10.16 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.18	<u>Operating Agreement dated November 20, 2017 among NetEase Youdao Information Technology (Beijing) Co., Ltd., Beijing NetEase Youdao Computer System Co., Ltd. and Feng Zhou (incorporated herein by reference to Exhibit 10.17 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.19	<u>Cooperation Agreement dated January 18, 2019, between NetEase Youdao Information Technology (Beijing) Co., Ltd. and Hangzhou NetEase Linjiedian Education Technology Co., Ltd. (incorporated herein by reference to Exhibit 10.18 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)</u>
4.20	<u>Shareholder Voting Right Trust Agreement dated March 25, 2019 between NetEase Youdao Information Technology (Beijing) Co., Ltd. And William Lei Ding (incorporated herein by reference to Exhibit 10.19 to the registration statement on Form F-1 (File No. 333-234009),as amended, initially filed with the SEC on September 30, 2019)</u>

4.21 [Loan Agreement dated March 25, 2019 between William Lei Ding and NetEase Youdao Information Technology \(Beijing\) Co., Ltd. \(incorporated herein by reference to Exhibit 10.20 to the registration statement on Form F-1 \(File No. 333-234009\), as amended, initially filed with the SEC on September 30, 2019\)](#)

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Exhibit Number	Description of Document
4.22	Equity Pledge Agreement dated March 25, 2019 between William Lei Ding and NetEase Youdao Information Technology (Beijing) Co., Ltd. (incorporated herein by reference to Exhibit 10.21 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.23	Exclusive Purchase Option Agreement dated March 25, 2019 among William Lei Ding, NetEase Youdao Information Technology (Beijing) Co., Ltd. and Hangzhou NetEase Linjiedian Education Technology Co., Ltd. (incorporated herein by reference to Exhibit 10.22 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.24	Operating Agreement dated March 25, 2019 among NetEase Youdao Information Technology (Beijing) Co., Ltd., Hangzhou NetEase Linjiedian Education Technology Co., Ltd. and William Lei Ding (incorporated herein by reference to Exhibit 10.23 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.25	Shareholder Voting Right Trust Agreement dated March 25, 2019 between NetEase Youdao Information Technology (Beijing) Co., Ltd. and Feng Zhou (incorporated herein by reference to Exhibit 10.24 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.26	Loan Agreement dated March 25, 2019 between Feng Zhou and NetEase Youdao Information Technology (Beijing) Co., Ltd. (incorporated herein by reference to Exhibit 10.25 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.27	Equity Pledge Agreement dated March 25, 2019 between Feng Zhou and NetEase Youdao Information Technology (Beijing) Co., Ltd. (incorporated herein by reference to Exhibit 10.26 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.28	Exclusive Purchase Option Agreement dated March 25, 2019 among NetEase Youdao Information Technology (Beijing) Co., Ltd., Feng Zhou and Hangzhou NetEase Linjiedian Education Technology Co., Ltd. (incorporated herein by reference to Exhibit 10.27 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.29	Operating Agreement dated March 25, 2019 among NetEase Youdao Information Technology (Beijing) Co., Ltd., Hangzhou NetEase Linjiedian Education Technology Co., Ltd. and Feng Zhou (incorporated herein by reference to Exhibit 10.28 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.30	Asset Transfer Agreement (for the transfer of certain fix assets, trademarks and copyrights) dated April 30, 2019 by and between NetEase (Hangzhou) Network Co., Ltd. and NetEase Youdao Information Technology (Hangzhou) Co., Ltd. (incorporated herein by reference to Exhibit 10.29 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.31	Asset Transfer Agreement (for the transfer of certain patents and software copyright) dated April 30, 2019 by and between NetEase (Hangzhou) Network Co., Ltd. and NetEase Youdao Information Technology (Hangzhou) Co., Ltd. (incorporated herein by reference to Exhibit 10.30 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.32	Domain Name Transfer Agreement dated April 30, 2019 by and between Guangzhou NetEase Computer System Co., Ltd. and Beijing NetEase Youdao Computer System Co., Ltd. (incorporated herein by reference to Exhibit 10.31 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.33	Domain Name Transfer Agreement dated April 30, 2019 by and between NetEase (Hangzhou) Network Co., Ltd. and Beijing NetEase Youdao Computer System Co., Ltd. (incorporated herein by reference to Exhibit 10.32 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)

4.34 [Entrusted Loan Agreement dated December 19, 2014 among NetEase Youdao Information Technology \(Beijing\) Co., Ltd., NetEase \(Hangzhou\) Network Co., Ltd. and Huamao sub-branch of China Construction Bank \(Beijing\) Co., Ltd. \(incorporated herein by reference to Exhibit 10.33 to the registration statement on Form F-1 \(File No. 333-234009\), as amended, initially filed with the SEC on September 30, 2019\)](#)

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Exhibit Number	Description of Document
4.35	Master Transaction Agreement dated September 27, 2019 between NetEase, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.34 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.36	Transitional Services Agreement dated September 27, 2019 between NetEase, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.35 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.37	Non-Competition Agreement dated September 27, 2019 between NetEase, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.36 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.38	Cooperation Framework Agreement dated September 27, 2019 between NetEase, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.37 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.39	Intellectual Property License Agreement dated September 27, 2019 between NetEase, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.38 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.40	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis Emerging Markets Equity Fund (Australia Registered) dated September 30, 2019 (incorporated herein by reference to Exhibit 10.39 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.41	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis Institutional Emerging Markets Equity L.P. dated September 30, 2019 (incorporated herein by reference to Exhibit 10.40 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.42	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis SICAV Emerging Markets Equity Fund dated September 30, 2019 (incorporated herein by reference to Exhibit 10.41 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.43	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis SICAV Global Equity Fund dated September 30, 2019 (incorporated herein by reference to Exhibit 10.42 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.44	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis Global Equity Fund (Australia Registered) dated September 30, 2019 (incorporated herein by reference to Exhibit 10.43 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.45	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis Global Equity LE Fund (Australia Registered) dated September 30, 2019 (incorporated herein by reference to Exhibit 10.44 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.46	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis Institutional Global Equity L.P. dated September 30, 2019 (incorporated herein by reference to Exhibit 10.45 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)

- 4.47 [Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis Global Equity Fund Limited dated September 30, 2019 \(incorporated herein by reference to Exhibit 10.46 to the registration statement on Form F-1 \(File No. 333-234009\), as amended, initially filed with the SEC on September 30, 2019\)](#)

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Exhibit Number	Description of Document
4.48	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis Institutional Funds Limited dated September 30, 2019 (incorporated herein by reference to Exhibit 10.47 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.49	Subscription Agreement for Class A Ordinary Shares in connection with the Concurrent Private Placement by and between the Registrant and Orbis OEIC dated September 30, 2019 (incorporated herein by reference to Exhibit 10.48 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
4.50†	Facility agreement of a revolving loan facility of US\$300 million between NetEase, Inc. as lender and Youdao, Inc. as borrower dated April 1, 2021 (incorporated herein by reference to Exhibit 4.49 to the annual report on Form 20-F (File No. 001-39087), filed with the SEC on April 28, 2022)
4.51*†	Cooperation Agreement dated January 1, 2022 between NetEase Youdao Information (Hangzhou) Co., Ltd. and Youdao (Guangzhou) Computer System Co., Ltd.
4.52*†	Shareholder Voting Right Trust Agreement dated January 1, 2022 between NetEase Youdao Information (Hangzhou) Co., Ltd. and Feng Zhou
4.53*†	Loan Agreement dated January 1, 2022 between Feng Zhou and NetEase Youdao Information Technology (Hangzhou) Co., Ltd.
4.54*†	Equity Pledge Agreement dated January 1, 2022 between Feng Zhou and NetEase Youdao Information Technology (Hangzhou) Co., Ltd.
4.55*†	Exclusive Purchase Option Agreement dated January 1, 2022 among Feng Zhou, NetEase Youdao Information Technology (Hangzhou) Co., Ltd. and Youdao (Guangzhou) Computer System Co., Ltd.
4.56*†	Operating Agreement dated January 1, 2022 among NetEase Youdao Information Technology (Hangzhou) Co., Ltd., Youdao (Guangzhou) Computer System Co., Ltd. and Feng Zhou
4.57*†	Shareholder Voting Right Trust Agreement dated January 1, 2022 between NetEase Youdao Information (Hangzhou) Co., Ltd. And Yinghui Wu
4.58*†	Loan Agreement dated January 1, 2022 between Yinghui Wu and NetEase Youdao Information Technology (Hangzhou) Co., Ltd.
4.59*†	Equity Pledge Agreement dated January 1, 2022 between Yinghui Wu and NetEase Youdao Information Technology (Hangzhou) Co., Ltd.
4.60*†	Exclusive Purchase Option Agreement dated January 1, 2022 among Yinghui Wu, NetEase Youdao Information Technology (Hangzhou) Co., Ltd. and Youdao (Guangzhou) Computer System Co., Ltd.
4.61*†	Operating Agreement dated January 1, 2022 among NetEase Youdao Information Technology (Hangzhou) Co., Ltd., Youdao (Guangzhou) Computer System Co., Ltd. and Yinghui Wu
8.1*	Principal Subsidiaries and the VIEs of the Registrant
11.1	Code of Business Conduct and Ethics of the Registrant (as amended) ((incorporated herein by reference to Exhibit 99.1 to the registration statement on Form F-1 (File No. 333-234009), as amended, initially filed with the SEC on September 30, 2019)
12.1*	Certification by Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2*	Certification by Principal Accounting Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1**	Certification by Principal Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2**	Certification by Principal Accounting Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1*	Consent of Tian Yuan Law Firm

- 15.2* [Consent of Maples and Calder \(Hong Kong\) LLP](#)
- 15.3* [Consent of PricewaterhouseCoopers Zhong Tian LLP, Independent Registered Public Accounting Firm](#)

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Exhibit Number	Description of Document
15.4**	Submission under Item 16I(a) of Form 20-F in relation to the Holding Foreign Companies Accountable Act
101.INS*	XBRL Instance Document—this instance document does not appear on the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith

** Furnished herewith

† Portions of this exhibit have been omitted in reliance of the revised Item 601 of Regulation S-K.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing its annual report on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Youdao, Inc.

By: /s/ Feng Zhou

Name: Feng Zhou

Title: Chief Executive Officer

Date: April 27, 2023

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Youdao, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Youdao, Inc. and its subsidiaries (the “Company”) as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive loss, of changes in shareholders’ equity/(deficit) and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Annual Report on Internal Control over Financial Reporting appearing under Item 15 of this Annual Report on Form 20-F. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Estimate of average learning period for different courses of the customers for recognition of tutoring services revenue

As described in Note 2(q) to the consolidated financial statements, the Company recognized RMB2.9 billion of revenues from tutoring services for the year ended December 31, 2022. Revenues of online live streaming courses and online pre-recorded video courses are recognized ratably over the estimated average learning period of the customers. Management considered the average period that customers typically spend on the courses and other learning behavior patterns to arrive at the best estimate for the estimated learning period for each course. Significant management assumptions applied to average learning period for different courses for recognition of tutoring services revenue include the estimated learning time customers spend on the courses, the expected number of times customers will take the courses and the similarities between newly-launched courses and existing courses.

The principal considerations for our determination that performing procedures relating to the estimate of average learning period for different courses for recognition of tutoring services revenue is a critical audit matter are the significant judgment made by management in developing this estimate, which in turn led to a high degree of auditor judgment, and effort in performing procedures to evaluate the reasonableness of the significant assumptions used by management, related to the estimated learning time customers spend on the courses, the expected number of times customers will take the courses and the similarities between newly-launched courses and existing courses.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the key judgements, inputs and assumptions of the estimate of average learning period for different courses for recognition of tutoring services revenue. These procedures also included, among others, testing management's process for developing the estimate of average learning period for different courses; testing the completeness, accuracy and relevance of underlying data used in management's development of the estimate; and evaluating significant assumptions used by management. Evaluating management's assumptions involved (i) checking the mathematical formula used in calculating the expected learning time that customers spend on the courses, how many times the customers take the courses per month and the estimated average learning period for different courses for recognition of tutoring services revenue; and (ii) assessing the reasonableness of the significant assumptions used by management when estimating average learning period for different courses for recognition of tutoring services revenue.

/s/ PricewaterhouseCoopers Zhong Tian LLP
Beijing, the People's Republic of China
April 27, 2023

We have served as the Company's auditor since 2019.

YOUDAO, INC.
CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except for share and per share data)

	As of December 31,		
	2021	2022	2022
	RMB	RMB	US\$
			Note 2(f)
ASSETS			
Current assets:			
Cash and cash equivalents	322,777	783,611	113,613
Time deposits	268	273	40
Restricted cash (Note 2(j))	749,770	873	127
Short-term investments	503,831	232,152	33,659
Accounts receivable, net	248,339	405,139	58,740
Inventories	255,411	232,260	33,675
Amounts due from NetEase Group	6,192	7,888	1,144
Prepayment and other current assets	182,577	207,777	30,124
Assets held for sale (Note 2(c))	497	—	—
Total current assets	2,269,662	1,869,973	271,122
Non-current assets:			
Property, equipment and software, net	80,315	92,116	13,356
Operating lease right-of-use assets, net	118,104	78,405	11,368
Long-term investments	32,518	90,703	13,151
Goodwill (Note 5)	109,944	109,944	15,940
Other assets, net	22,436	35,015	5,075
Assets held for sale (Note 2(c))	1,088	—	—
Total non-current assets	364,405	406,183	58,890
Total assets	2,634,067	2,276,156	330,012
LIABILITIES, MEZZANINE EQUITY AND SHAREHOLDERS' DEFICIT			
Current liabilities:			
Accounts payables (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB45,756 and RMB49,305 as of December 31, 2021 and 2022, respectively)	161,006	282,354	40,937
Payroll payable (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB11,873 and RMB10,803 as of December 31, 2021 and 2022, respectively)	277,383	266,340	38,616
Amounts due to NetEase Group (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB23,984 and RMB7,538 as of December 31, 2021 and 2022, respectively)	83,041	68,809	9,976
Contract liabilities (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB1,011,734 and RMB1,017,029 as of December 31, 2021 and 2022, respectively)	1,065,639	1,067,285	154,742
Taxes payable (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB4,072 and RMB19,516 as of December 31, 2021 and 2022, respectively)	53,323	50,908	7,381
Accrued liabilities and other payables (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB65,547 and RMB122,758 as of December 31, 2021 and 2022, respectively)	515,567	564,922	81,907
Short-term loans from NetEase Group	878,000	878,000	127,298
Total current liabilities	3,033,959	3,178,618	460,857

YOU DAO, INC.
CONSOLIDATED BALANCE SHEETS (CONTINUED)
(Amounts in thousands, except for share and per share data)

	As of December 31,		
	2021	2022	2022
	RMB	RMB	US\$
			Note 2(f)
Non-current liabilities:			
Long-term lease liabilities (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB15,803 and RMB22,565 as of December 31, 2021 and 2022, respectively)	73,070	43,635	6,326
Other non-current liabilities (including amounts of the consolidated VIEs without recourse to the primary beneficiaries of RMB nil and RMB4,498 as of December 31, 2021 and 2022, respectively)	2,411	8,832	1,281
Long-term loans from NetEase Group	255,028	522,345	75,733
Total non-current liabilities	330,509	574,812	83,340
Total liabilities	3,364,468	3,753,430	544,197
Commitments and contingencies (Note 19)			
Mezzanine equity:			
Redeemable noncontrolling interests (Note 5)	78,592	64,571	9,362
Total mezzanine equity	78,592	64,571	9,362
Shareholders' deficit:			
Class A ordinary shares (US\$0.0001 par value; 200,000,000 shares authorized; 34,979,425 shares issued and outstanding as of December 31, 2021; 34,446,977 shares issued and outstanding as of December 31, 2022)	24	24	3
Class B ordinary shares (US\$0.0001 par value; 100,000,000 shares authorized; 88,288,360 shares issued and outstanding as of December 31, 2021 and 2022, respectively)	56	56	8
Additional paid-in capital	3,913,946	3,993,026	578,934
Treasury stock (Note 14)	—	(42,330)	(6,137)
Accumulated deficit	(4,671,195)	(5,398,420)	(782,697)
Accumulated other comprehensive loss	(54,354)	(92,094)	(13,352)
Statutory reserves	4,456	4,649	674
Noncontrolling interests	(1,926)	(6,756)	(980)
Total shareholders' deficit	(808,993)	(1,541,845)	(223,547)
Total liabilities, mezzanine equity and shareholders' deficit	2,634,067	2,276,156	330,012

The accompanying notes are an integral part of the consolidated financial statements.

YUDDAO, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Amounts in thousands, except for share and per share data)

	For the year ended December 31,			
	2020	2021	2022	2022
	RMB	RMB	RMB	US\$
				Note 2(f)
Net revenues: (include transactions with related parties of RMB 29,293, RMB23,790 and RMB34,702 for the years ended December 31, 2020, 2021 and 2022, respectively)				
Learning services	1,513,960	2,441,421	3,084,375	447,192
Smart devices	539,962	980,424	1,256,446	182,168
Online marketing services	472,884	593,949	672,361	97,483
Total net revenues	2,526,806	4,015,794	5,013,182	726,843
Cost of revenues: (include transactions with related parties of RMB 115,231, RMB83,901 and RMB87,007 for the years ended December 31, 2020, 2021 and 2022, respectively)				
Learning services	(716,504)	(980,700)	(1,172,703)	(170,025)
Smart devices	(355,970)	(618,925)	(765,641)	(111,008)
Online marketing services	(346,895)	(427,331)	(488,422)	(70,815)
Total cost of revenues	(1,419,369)	(2,026,956)	(2,426,766)	(351,848)
Gross profit	1,107,437	1,988,838	2,586,416	374,995
Operating expenses:				
Sales and marketing expenses (include transactions with related parties of RMB11,670, RMB17,182 and RMB15,037 for the years ended December 31, 2020, 2021 and 2022, respectively)	(1,473,604)	(2,077,638)	(2,328,095)	(337,542)
Research and development expenses (include transactions with related parties of RMB24,699, RMB32,839 and RMB49,550 for the years ended December 31, 2020, 2021 and 2022, respectively)	(372,184)	(607,373)	(803,791)	(116,538)
General and administrative expenses (include transactions with related parties of RMB11,887, RMB9,264 and RMB11,501 for the years ended December 31, 2020, 2021 and 2022, respectively)	(113,106)	(190,297)	(229,210)	(33,232)
Impairment of intangible assets from business combination (Note 5)	—	(56,778)	—	—
Total operating expenses	(1,958,894)	(2,932,086)	(3,361,096)	(487,312)
Loss from operations	(851,457)	(943,248)	(774,680)	(112,317)
Interest income	25,524	18,780	12,908	1,871
Interest expense (include interest expense charged by related parties of RMB 31,215, RMB31,644 and RMB45,607 for the years ended December 31, 2020, 2021 and 2022, respectively)	(31,215)	(31,644)	(45,607)	(6,612)
Others, net (Note 15)	61,052	36,673	81,445	11,808
Loss before tax	(796,096)	(919,439)	(725,934)	(105,250)
Income tax expenses	(2,929)	(6,648)	(13,844)	(2,007)
Net loss from continuing operations	(799,025)	(926,087)	(739,778)	(107,257)
Net loss from discontinued operations	(954,327)	(100,267)	(6,105)	(885)
Net loss	(1,753,352)	(1,026,354)	(745,883)	(108,142)
Net loss attributable to noncontrolling interests	563	30,699	18,851	2,733
Net loss attributable to ordinary shareholders of the Company	(1,752,789)	(995,655)	(727,032)	(105,409)
Including:				

Net loss from continuing operations attributable to ordinary shareholders of the Company	(798,462)	(895,388)	(720,927)	(104,524)
Net loss from discontinued operations attributable to ordinary shareholders of the Company	(954,327)	(100,267)	(6,105)	(885)

YOUDAO, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (CONTINUED)
(Amounts in thousands, except for share and per share data)

	For the year ended December 31,			
	2020 RMB	2021 RMB	2022 RMB	2022 US\$ Note 2(f)
Net loss	(1,753,352)	(1,026,354)	(745,883)	(108,142)
Other comprehensive loss:				
Foreign currency translation adjustment	(32,531)	(7,296)	(37,740)	(5,472)
Total other comprehensive loss	(32,531)	(7,296)	(37,740)	(5,472)
Total comprehensive loss	(1,785,883)	(1,033,650)	(783,623)	(113,614)
Comprehensive loss attributable to noncontrolling interests	563	30,699	18,851	2,733
Comprehensive loss attributable to ordinary shareholders of the Company	(1,785,320)	(1,002,951)	(764,772)	(110,881)
Net loss per ordinary share/ADS				
Basic	(15.53)	(8.18)	(5.88)	(0.85)
-Continuing operations	(7.07)	(7.36)	(5.83)	(0.84)
-Discontinued operations	(8.46)	(0.82)	(0.05)	(0.01)
Diluted	(15.53)	(8.18)	(5.88)	(0.85)
-Continuing operations	(7.07)	(7.36)	(5.83)	(0.84)
-Discontinued operations	(8.46)	(0.82)	(0.05)	(0.01)
Weighted average number of ordinary shares/ADSs				
Basic	112,864,452	121,650,907	123,597,604	123,597,604
Diluted	112,864,452	121,650,907	123,597,604	123,597,604

The accompanying notes are an integral part of the consolidated financial statements.

YUDDAO, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY/(DEFICIT)
(Amounts in thousands, except for share data)

	Class A ordinary shares		Class B ordinary shares		Additional paid-in capital	Statutory reserves	Accumulated deficit	Accumulated other comprehensive loss	Noncontrolling interests	Total shareholders' equity/(deficit)
	Shares	Amount RMB	Shares	Amount RMB	RMB	RMB	RMB	RMB	RMB	RMB
Balance as of January 1, 2020	22,635,396	16	89,132,360	56	2,232,841	1,786	(1,920,081)	(14,527)	936	301,027
Loss for the year	—	—	—	—	—	—	(1,752,789)	—	(563)	(1,753,352)
Share issuance pursuant to incentive plan	2,961,710	2	—	—	37,604	—	—	—	—	37,606
Share-based compensation expenses	—	—	—	—	41,578	—	—	—	—	41,578
Deemed distribution to NetEase (Note 20)	—	—	—	—	(2,060)	—	—	—	—	(2,060)
Noncontrolling interests arising from business combination (Note 5)	—	—	—	—	—	—	—	—	624	624
Foreign currency translation adjustment	—	—	—	—	—	—	—	(32,531)	—	(32,531)
Appropriation to statutory reserves	—	—	—	—	—	1,164	(1,164)	—	—	—
Balance as of December 31, 2020	25,597,106	18	89,132,360	56	2,309,963	2,950	(3,674,034)	(47,058)	997	(1,407,108)

YOUDAO, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY/(DEFICIT) (CONTINUED)
(Amounts in thousands, except for share data)

	Class A ordinary shares		Class B ordinary shares		Additional paid-in capital	Statutory reserves	Accumulated deficit	Accumulated other comprehensive loss	Noncontrolling interests	Total shareholders' deficit
	Shares	Amount RMB	Shares	Amount RMB	RMB	RMB	RMB	RMB	RMB	RMB
Balance as of										
December 31, 2020	25,597,106	18	89,132,360	56	2,309,963	2,950	(3,674,034)	(47,058)	997	(1,407,108)
Loss for the year	—	—	—	—	—	—	(995,655)	—	(2,923)	(998,578)
Share issuance pursuant to incentive plan	1,538,319	1	—	—	24,549	—	—	—	—	24,550
Share issuance upon follow-on offering, net of issuance cost (Note 13)	7,000,000	5	—	—	1,498,622	—	—	—	—	1,498,627
Share-based compensation expenses	—	—	—	—	84,983	—	—	—	—	84,983
Conversion of Class B shares into Class A shares	844,000	*	(844,000)	*	—	—	—	—	—	—
Deemed distribution to NetEase (Note 20)	—	—	—	—	(4,171)	—	—	—	—	(4,171)
Foreign currency translation adjustment	—	—	—	—	—	—	—	(7,296)	—	(7,296)
Appropriation to statutory reserves	—	—	—	—	—	1,506	(1,506)	—	—	—
Balance as of										
December 31, 2021	34,979,425	24	88,288,360	56	3,913,946	4,456	(4,671,195)	(54,354)	(1,926)	(808,993)

* Less than 1.

YOUDAO, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY/(DEFICIT) (CONTINUED)
(Amounts in thousands, except for share data)

	Class A ordinary shares		Class B ordinary shares		Additional paid-in capital	Treasury stock		Statutory reserves	Accumulated deficit	Accumulated other comprehensive loss	Noncontrolling interests	Total shareholders' deficit
	Shares	Amount RMB	Shares	Amount RMB	RMB	Shares	Amount RMB	RMB	RMB	RMB	RMB	RMB
Balance as of December 31, 2021	34,979,425	24	88,288,360	56	3,913,946	—	—	4,456	(4,671,195)	(54,354)	(1,926)	(808,993)
Loss for the year	—	—	—	—	—	—	—	—	(727,032)	—	(4,830)	(731,862)
Share issuance pursuant to incentive plan	641,738	*	—	—	10,101	—	—	—	—	—	—	10,101
Repurchase of ADSs (Note 14)	—	—	—	—	—	(1,174,186)	(42,330)	—	—	—	—	(42,330)
Share-based compensation expenses	—	—	—	—	68,979	—	—	—	—	—	—	68,979
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	(37,740)	—	(37,740)
Appropriation to statutory reserves	—	—	—	—	—	—	—	193	(193)	—	—	—
Balance as of December 31, 2022	<u>35,621,163</u>	<u>24</u>	<u>88,288,360</u>	<u>56</u>	<u>3,993,026</u>	<u>(1,174,186)</u>	<u>(42,330)</u>	<u>4,649</u>	<u>(5,398,420)</u>	<u>(92,094)</u>	<u>(6,756)</u>	<u>(1,541,845)</u>

* Less than 1.

The accompanying notes are an integral part of the consolidated financial statements.

YOUDAO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands)

	For the year ended December 31,			
	2020	2021	2022	2022
	RMB	RMB	RMB	US\$
				Note 2(f)
Cash flows from operating activities:				
Net loss	(1,753,352)	(1,026,354)	(745,883)	(108,142)
Net loss from discontinued operations	(954,327)	(100,267)	(6,105)	(885)
Depreciation and amortization	15,462	30,098	42,213	6,120
Share-based compensation	36,425	72,201	70,709	10,252
Fair value changes of short-term investments	(873)	668	(626)	(91)
Allowance/(Reversal) for expected credit losses	12,120	(4,523)	6,863	995
(Reversal)/Provision of allowance for inventory	(3,162)	10,176	3,149	457
Impairment of long-term investments	—	7,000	10,300	1,493
Impairment of intangible assets from business combination (Note 5)	—	56,778	—	—
Remeasured loss from previously held interest (Note 15)	—	2,456	—	—
Deferred income taxes (Note 10)	—	(8,963)	—	—
Unrealized exchange losses/(gains)	16,252	1,391	(952)	(138)
Others	879	3,048	6,223	902
Changes in operating assets and liabilities, net of acquisitions:				
Accounts receivable	(80,057)	24,841	(163,475)	(23,702)
Inventories	(54,647)	(146,709)	20,002	2,900
Prepayment and other current assets	(120,778)	25,880	9,173	1,329
Amounts due from NetEase Group	10,849	(2,111)	(1,696)	(246)
Operating lease right-of-use assets	9,901	29,022	33,906	4,916
Other assets	(6,670)	(6,327)	(11,860)	(1,720)
Contract liabilities	545,814	115,462	9,281	1,346
Accounts payables	78,629	12,453	121,348	17,594
Payroll payable	68,249	85,423	19,468	2,823
Taxes payable	28,842	(2,156)	(2,415)	(350)
Accrued liabilities and other payables	249,703	34,344	75,843	10,996
Amounts due to NetEase Group	17,044	11,640	(14,232)	(2,063)
Long-term lease liabilities	(33,351)	(47,939)	(23,642)	(3,428)
Other non-current liabilities	(1,474)	(1,632)	(1,214)	(176)
Net cash used in continuing operating activities	(9,868)	(623,566)	(531,412)	(77,048)
Net cash used in discontinued operating activities	(311,694)	(722,844)	(71,711)	(10,397)
Net cash used in operating activities	(321,562)	(1,346,410)	(603,123)	(87,445)

YOUDAO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
(Amounts in thousands)

	For the year ended December 31,			
	2020 RMB	2021 RMB	2022 RMB	2022 US\$ Note 2(f)
Cash flows from investing activities:				
Purchases of short-term investments	(1,683,000)	(779,500)	(1,258,223)	(182,425)
Proceeds of maturities of short-term investments	1,220,000	860,000	1,530,528	221,906
Placements of time deposits	(20,663)	(897,916)	(273)	(40)
Proceeds from maturities of time deposits	1,327,451	907,759	268	39
Cash paid for business combinations, net of cash acquired (Note 5)	(6,398)	43,216	—	—
Loans to third parties	—	—	(36,500)	(5,292)
Repayment of loans from third parties	—	—	10,500	1,522
Purchase of intangible assets	—	(596)	(1,100)	(159)
Purchases of property, equipment and software	(30,770)	(63,477)	(68,657)	(9,954)
Proceeds from disposal of property, equipment and software	925	2,114	1,418	206
Impact on cash and cash equivalents from an entity disposed	—	(1,521)	—	—
Payment for long-term investments	(40,490)	(27,380)	(52,138)	(7,559)
Net cash provided by continuing investing activities	767,055	42,699	125,823	18,244
Net cash (used in)/provided by discontinued investing activities	(6,084)	4,375	—	—
Net cash provided by investing activities	760,971	47,074	125,823	18,244
Cash flows from financing activities:				
Proceeds from the issuance of follow-on offering shares, net of issuance cost (Note 13)	—	1,498,627	—	—
Payment of offering expenses	(7,909)	—	—	—
Proceeds from long-term loans from NetEase Group	—	257,522	225,941	32,758
Cash paid for repurchase of Youdao's ADSs	—	—	(50,700)	(7,351)
Proceeds from issuance of ordinary shares pursuant to incentive plan	34,468	27,564	9,408	1,364
Net cash provided by financing activities*	26,559	1,783,713	184,649	26,771
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(30,097)	(21,029)	4,588	665
Net increase/(decrease) in cash, cash equivalents and restricted cash	435,871	463,348	(288,063)	(41,765)
Cash, cash equivalents and restricted cash at the beginning of the year	173,328	609,199	1,072,547	155,505
Cash, cash equivalents and restricted cash at the end of the year	609,199	1,072,547	784,484	113,740

* There was no financing activity from discontinued operations.

YOUDAO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
(Amounts in thousands)

	For the year ended December 31,			
	2020	2021	2022	2022
	RMB	RMB	RMB	US\$
				Note 2(f)
Supplemental disclosures of cash flow information:				
Cash paid for income tax expenses	8,372	9,686	9,415	1,365
Cash paid for interest expense	28,597	28,567	39,412	5,714
Non-cash investing and financing activities:				
Unpaid consideration for business combination (Note 12)	—	5,129	—	—
Changes in accrued liabilities and other payables related to property, equipment and software addition	7,068	5,531	5,690	825
Receivable from agent for issuance of ordinary shares pursuant to incentive plan	3,138	—	693	100

The accompanying notes are an integral part of the consolidated financial statements.

YUDDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations

(a) Principal activities

Youdao, Inc. (“Youdao” or the “Company”) was incorporated in the Cayman Islands on November 27, 2014. Youdao, Inc., its subsidiaries, consolidated variable interest entities (“VIEs”) and the VIEs’ subsidiaries, together are referred to as “the Group” or “Youdao Group”. NetEase, Inc. (the “Parent” or “NetEase”), its subsidiaries, consolidated VIEs and VIEs’ subsidiaries, other than Youdao Group, are collectively referred to herein as the “NetEase Group”.

The Group provides a variety of learning content, applications and solutions, which covers a wide spectrum of topics and targets people from broad age groups for their lifelong learning needs through its websites and mobile applications. The Group generates its revenues from learning services, smart devices as well as online marketing services. The learning services mainly include tutoring services, fee-based premium services and others.

As of December 31, 2022, the Company’s major subsidiaries and consolidated VIEs are as follows:

	Place and year of incorporation	Percentage of economic ownership	Principal activities
Subsidiaries			
Youdao (Hong Kong) Limited	Hong Kong, China, 2016	100%	Holding company
Youdao Education Technology (Hong Kong) Limited	Hong Kong, China, 2021	100%	Providing sales of smart devices
NetEase Youdao Information Technology (Beijing) Co., Ltd. (“Youdao Information”)	Beijing, China, 2006	100%	Providing sales of smart devices and solutions, technical support to the VIEs
NetEase Youdao Information Technology (Hangzhou) Co., Ltd. (“Youdao Hangzhou”)	Hangzhou, China, 2019	100%	Providing technical support to the VIEs
NetEase Youdao (Hangzhou) Smart Technology Co., Ltd. (“Youdao Smart Technology”)	Hangzhou, China, 2021	100%	Providing sales of smart devices
	Place and year of incorporation	Percentage of beneficial interests	Principal activities
VIEs			
Beijing NetEase Youdao Computer System Co., Ltd. (“Youdao Computer”)	Beijing, China, 2007	100%	Providing online learning services as well as online marketing services
Hangzhou NetEase Linjiedian Education Technology Co., Ltd. (“Linjiedian Education”)	Hangzhou, China, 2019	100%	Providing online learning services
Youdao (Guangzhou) Computer System Co., Ltd. (“Youdao Guangzhou Computer”)	Guangzhou, China, 2021	100%	Providing online learning services

YODAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

(b) VIE arrangements

i) Contracts that give the Company the power to direct activities of the VIEs

Current PRC laws and regulations impose certain restrictions or prohibitions on foreign ownership of companies that engage in value-added telecommunication services and certain other businesses. Youdao Information and Youdao Hangzhou, the PRC subsidiaries, are considered foreign-invested enterprises. To comply with the foregoing restrictions imposed by PRC laws and regulations on foreign investments, the Group conduct a significant portion of businesses in China through Youdao Computer, Linjiedian Education and Youdao Guangzhou Computer, the VIEs in the PRC, based on a series of contractual arrangements between the Company's subsidiaries and the VIEs and their respective shareholders.

The following is a summary of the contractual arrangements by and among Youdao Information, Youdao Computer and the shareholders of Youdao Computer. The contractual arrangements with the other VIEs and their respective shareholders, except for the cooperation agreements, are substantially similar to the corresponding contractual arrangements as discussed below.

Loan Agreements

Each shareholder of Youdao Computer, William Lei Ding and Feng Zhou, entered into a loan agreement with Youdao Information under which, Youdao Information provided each of William Lei Ding and Feng Zhou with an interest-free loan in the principal amount of approximately RMB3.6 million and RMB1.4 million, respectively. These funds were used by each of William Lei Ding and Feng Zhou to pay the consideration to acquire his respective equity interest in Youdao Computer. Such loans can be repaid by transferring each of William Lei Ding and Feng Zhou's respective equity interest in Youdao Computer to Youdao Information or its designee or through such other method as Youdao Information shall determine. The term of each of the Loan Agreements is 10 years from the date of loan agreement and will be automatically extended for a further 10-year term unless otherwise decided by Youdao Information.

YOU DAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

(b) VIE arrangements (Continued)

i) Contracts that give the Company the power to direct activities of the VIEs (Continued)

Exclusive Purchase Option Agreements

Under the Exclusive Purchase Option Agreements entered into by Youdao Information, Youdao Computer and each of William Lei Ding and Feng Zhou, Youdao Computer granted Youdao Information an option to purchase all or a portion of the respective equity interests in Youdao Computer at a price equal to the original capital and any additional paid-in capital paid by him. In addition, under each Exclusive Purchase Option Agreement, Youdao Computer granted Youdao Information an option to purchase all or a portion of the assets held by Youdao Computer or its subsidiaries at a price equal to the net book value of such assets. Each of Youdao Computer, William Lei Ding and Feng Zhou agreed not to transfer, mortgage or permit any security interest to be created on any equity interest in or assets of Youdao Computer without the prior written consent of Youdao Information. Each Exclusive Purchase Option Agreement shall remain in effect until all of the equity interests in or assets of Youdao Computer have been acquired by Youdao Information or its designee or until Youdao Information unilaterally terminates the agreement by written notice.

Shareholder Voting Right Trust Agreements

Under the Shareholder Voting Right Trust Agreements between Youdao Information and each of William Lei Ding and Feng Zhou, respectively, each of William Lei Ding and Feng Zhou, agreed to irrevocably entrust a person designated by Youdao Information to represent him to exercise all the voting right and other shareholders' rights to which he is entitled as a shareholder of Youdao Computer. Each Shareholder Voting Right Trust Agreement shall remain effective for as long as William Lei Ding and Feng Zhou, as applicable, remains a shareholder of Youdao Computer unless Youdao Information unilaterally terminates the agreement by written notice.

Equity Pledge Agreements

Each of William Lei Ding and Feng Zhou entered into an Equity Pledge Agreement with Youdao Information. Under such Equity Pledge Agreements, each of William Lei Ding and Feng Zhou pledged his respective equity interest in Youdao Computer to Youdao Information to secure his obligations under the applicable Loan Agreement, Exclusive Purchase Option Agreement, Shareholder Voting Right Trust Agreement, and Operating Agreement. Each of William Lei Ding and Feng Zhou further agreed not to transfer or pledge his respective equity interest in Youdao Computer without the prior written consent of Youdao Information. Each of the Equity Pledge Agreements will remain binding until the respective pledger, William Lei Ding or Feng Zhou, as the case may be, discharges all his obligations under the above-mentioned agreements.

ii) Contracts that enable the Company to receive substantially all of the economic benefits from the VIEs

Operating Agreements

Each of Youdao Computer, William Lei Ding and Feng Zhou agreed that, except for transactions in the ordinary course of business, Youdao Computer will not enter into any transaction that would materially affect the assets, liabilities, rights or operations of Youdao Computer without the prior written consent of Youdao Information. Youdao Information also agreed that it would provide performance guarantees and, at Youdao Information's discretion, guarantee loans for working capital purposes to the extent required by Youdao Computer for its operations. As counter-guarantee, Youdao Computer agreed to pledge the account receivable in its operations and all of its assets to Youdao Information, which pledge has not been implemented as of the date of the report.

YUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

(b) VIE arrangements (Continued)

ii) Contracts that enable the Company to receive substantially all of the economic benefits from the VIEs (Continued)

Operating Agreements (Continued)

Furthermore, each of William Lei Ding and Feng Zhou agreed that, upon instruction from Youdao Information, he would appoint Youdao Computer's board members, president, chief financial officer and other senior executive officers. The term of each operating agreement is 20 years from the date of execution and can be extended with the written consent of Youdao Information.

Cooperation Agreements

Youdao Computer and Youdao Information entered into a cooperation agreement, or the Youdao Computer Cooperation Agreement, on July 1, 2015. Under the Youdao Computer cooperation agreement, Youdao Information has agreed to provide the following services to Youdao Computer:

- the development of computer software (including, but not limited to, producing online advertisement and distribution and maintenance of software) and technical support and maintenance for computer software operation;
- the design, development, update and upgrade of platforms for online advertisement; and
- the provision of technology support, including, but not limited to, server maintenance, development of server software and related maintenance and updates.

Youdao Computer has agreed to share a portion of its monthly income (after tax and expenses) with Youdao Information in accordance with certain formulas as specified in the Youdao Computer Cooperation Agreement. The agreement was effective from July 1, 2015 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

Linjiedian Education and Youdao Information entered into a cooperation agreement, or the Linjiedian Education Cooperation Agreement, on January 18, 2019, pursuant to which Youdao Information has agreed to provide the following services to Linjiedian Education:

- the development of computer software (including, but no limited to information management software and other technical software) and technical support and maintenance for computer software operation;
- licensing of software, trademark, domains, technical secrets and other associated intellectual property rights; and
- the provision of research and development services in relation to education courseware and teaching support services.

Linjiedian Education has agreed to share a portion of its monthly income (after tax and expenses) with Youdao Information in accordance with certain formulas as specified in the Linjiedian Education Cooperation Agreement. The agreement was effective from January 18, 2019 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

Youdao Guangzhou Computer and Youdao Hangzhou entered into a cooperation agreement, or the Youdao Guangzhou Computer Cooperation Agreement, on January 1, 2022, pursuant to which Youdao Hangzhou has agreed to provide the following services to Youdao Guangzhou Computer:

- the development of computer software (including, but no limited to information management software and other technical software) and technical support and maintenance for computer software operation;

- licensing of software, trademark, domains, technical secrets and other associated intellectual property rights; and
- the provision of research and development services in relation to education courseware and teaching support services.

YUDDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

(b) VIE arrangements (Continued)

ii) Contracts that enable the Company to receive substantially all of the economic benefits from the VIEs (Continued)

Cooperation Agreements (Continued)

Youdao Guangzhou Computer has agreed to share a portion of its monthly income (after tax and expenses) with Youdao Hangzhou in accordance with certain formulas as specified in the Youdao Guangzhou Computer Cooperation Agreement. The agreement was effective from January 1, 2022 and will continue to be effective unless it is terminated, in case of a material breach of the agreement, by written notice of the non-breaching party.

The VIEs has incurred RMB1,402.4 million, RMB2,221.2 million and RMB2,767.8 million service fees to Youdao Information and Youdao Hangzhou for the years ended December 31, 2020, 2021 and 2022, respectively.

iii) Risks in relation to VIE structure

The nominee shareholders of the VIEs are William Lei Ding, who is the chief executive officer, director and major shareholder of NetEase, the Company's controlling shareholder, Feng Zhou, who is the Chief Executive Officer of the Group, and Yinghui Wu, who is the Vice President of the Group. The enforceability, and therefore the benefits, of the contractual agreements between the Company and the VIEs depend on these individuals enforcing the contracts. There is a risk that the benefits of ownership between the Company and the VIEs may not be aligned in the future. Given the significance and importance of the VIEs, there would be a significant negative impact to the Company if these contracts were not enforced. The Group's operations depend on the VIEs to honour their contractual agreements with the Group and the Company's ability to control the VIEs also depends on the authorization by the shareholders of the VIEs to exercise voting rights on all matters requiring shareholder approval in the VIEs. The Company believes that the agreements on authorization to exercise shareholder's voting power are legally enforceable and the possibility that it will no longer be able to control and consolidate the VIEs as a result of the aforementioned risks and uncertainties is remote.

The Company believes that its contractual arrangements with the VIEs are in compliance with PRC (the People's Republic of China) law and are legally enforceable. William Lei Ding, Feng Zhou and Yinghui Wu have no current interest in seeking to act contrary to the contractual arrangements. However, uncertainties in the PRC legal system could limit the Company's ability to enforce these contractual arrangements and if William Lei Ding, Feng Zhou and Yinghui Wu were to reduce their interests in the Company, their interests may diverge from that of the Company and that may potentially increase the risk that they would seek to act contrary to the contractual terms, for example by influencing the VIEs not to pay the service fees when required to do so. If the VIEs or their respective shareholder fails to perform their respective obligations under the current contractual arrangements, the Company may have to incur substantial costs and expend significant resources to enforce those arrangements and rely on legal remedies under Chinese laws. Because of the limited volume of published decisions and their non-binding nature, the interpretation and enforcement of these laws, rules and regulations involve substantial uncertainties. These uncertainties may impede the ability of the Company to enforce these contractual arrangements, or suffer significant delay or other obstacles in the process of enforcing these contractual arrangements and materially and adversely affect the results of operations and the financial position of the Company.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

(b) VIE arrangements (Continued)

iii) Risks in relation to VIE structure (Continued)

In addition, many Chinese regulations are subject to extensive interpretive powers of governmental agencies and commissions, and there are substantial uncertainties regarding the interpretation and application of current and future Chinese laws and regulations. Accordingly, the Company cannot assure that Chinese regulatory authorities will not ultimately take a contrary view to its belief and will not take action to prohibit or restrict its business activities. The relevant regulatory authorities would have broad discretion in dealing with any deemed violations which may adversely impact the financial statements, operations and cash flows of the Company (including the restriction on the Company to carry out the business). If the legal structure and contractual arrangements were found to be in violation of any existing PRC laws and regulations, the PRC government could potentially:

- revoke the Group's business and operating licenses;
- require the Group to discontinue or restrict operations;
- restrict the Group's right to collect revenues;
- block the Group's websites and mobile applications;
- require the Group to restructure the operations in such a way as to compel the Group to establish a new enterprise, re-apply for the necessary licenses or relocate its businesses, staff and assets;
- impose additional conditions or requirements with which the Group may not be able to comply; or
- take other regulatory or enforcement actions against the Group that could be harmful to its business.

The imposition of any of these penalties may result in a material and adverse effect on the Group's ability to conduct its business. In addition, if the imposition of any of these penalties causes the Group to lose the rights to direct the activities of the VIEs or the right to receive their economic benefits, the Group would no longer be able to consolidate the VIEs. The Group does not believe that any penalties imposed or actions taken by the PRC government would result in the liquidation of the Company, its subsidiaries or the VIEs.

In accordance with VIE contractual agreements, the Company (1) could exercise all shareholder's rights of the VIEs and has power to direct the activities that most significantly affects the economic performance of the VIEs, and (2) receive the economic benefits of the VIEs that could be significant to the VIEs. Accordingly, the Company was considered as ultimate primary beneficiary of the VIEs and had consolidated the VIEs' financial results of operations, assets and liabilities in the Company's consolidated financial statements. Therefore, the Company considers that there are no assets in the VIEs that can be used only to settle obligations of the VIEs, except for the registered capital of the VIEs amounting to approximately RMB15 million as of December 31, 2021 and 2022 as well as certain non-distributable statutory reserves amounting to approximately RMB5,457 and RMB5,650, respectively, as of December 31, 2021 and 2022. As the VIEs are incorporated as limited liability companies under the PRC Company Law, creditors do not have recourse to the general credit of the Company for the liabilities of the VIEs. There is currently no contractual arrangement that would require the Company to provide additional financial support to the VIEs. As the Group is conducting certain businesses in the PRC through the VIEs, the Group may provide additional financial support on a discretionary basis in the future, which could expose the Group to a loss.

There is no VIE in the Group where the Company or any subsidiary has a variable interest but is not the primary beneficiary.

YOU DAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

(b) VIE arrangements (Continued)

iii) Risks in relation to VIE structure (Continued)

The following table sets forth the assets, liabilities, results of operations and cash flows of the VIEs and their subsidiaries taken as a whole, which were included in the Group's consolidated financial statements:

	As of December 31,	
	2021	2022
	RMB	RMB
Assets		
Cash and cash equivalents	134,639	238,585
Restricted cash (Note 2(j))	749,770	873
Short-term investments	13,617	21,356
Accounts receivable, net	146,257	170,005
Inventories	48,477	52,958
Amounts due from NetEase Group and Youdao Group	442,286	1,393,994
Prepayment and other current assets	64,005	90,365
Assets held for sale	204	—
Total current assets	1,599,255	1,968,136
Property, equipment and software, net	3,244	5,525
Operating lease right-of-use assets, net	26,320	31,985
Goodwill	103,006	103,006
Other assets, net	36,405	73,119
Total non-current assets	168,975	213,635
Total assets	1,768,230	2,181,771
Liabilities		
Accounts payables	45,756	49,305
Payroll payable	11,873	10,803
Amounts due to NetEase Group and Youdao Group	504,605	857,883
Contract liabilities	1,011,734	1,017,029
Taxes payable	4,072	19,516
Accrued liabilities and other payables	65,547	122,758
Total current liabilities	1,643,587	2,077,294
Long-term lease liabilities	15,803	22,565
Other non-current liabilities	—	4,498
Total non-current liabilities	15,803	27,063
Total liabilities	1,659,390	2,104,357

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

(b) VIE arrangements (Continued)

iii) Risks in relation to VIE structure (Continued)

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Net revenues:			
Third-party net revenues	1,792,962	2,750,610	3,505,470
Other intra-Group net revenues	552	941	10,512
Total net revenues	1,793,514	2,751,551	3,515,982
Cost and expenses:			
Third-party cost and expenses	(421,814)	(561,272)	(759,964)
Intra-Group cost and expenses related to technical consulting and related services	(1,402,371)	(2,221,199)	(2,767,812)
Other intra-Group cost and expenses	(1,107)	(10,673)	(2,685)
Total cost and expenses	(1,825,292)	(2,793,144)	(3,530,461)
Net income/(loss) from continuing operations	20,483	(58,520)	(31,539)
	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Cash flows from operating activities:			
Net cash provided by transactions with external parties	3,034,716	3,278,167	2,950,638
Net cash used in transactions with intra-Group companies related to technical consulting and related services	(3,098,831)	(2,409,300)	(2,944,165)
Net cash provided by/(used in) other transactions with intra-Group companies	1,613	(699)	(589,142)
Net cash (used in)/provided by operating activities	(62,502)	868,168	(582,669)
Cash flows from investing activities:			
Net cash provided by/(used in) transactions with external parties	65,510	8,550	(62,282)
Net cash provided by/(used in) investing activities	65,510	8,550	(62,282)

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

1. Operations (Continued)

Liquidity

The Group incurred net losses of RMB 1,753.4 million, RMB1,026.4 million and RMB745.9 million for the years ended December 31, 2020, 2021 and 2022, respectively. Net cash used in operating activities was RMB321.6 million, RMB1,346.4 million and RMB603.1 million for the years ended December 31, 2020, 2021 and 2022, respectively. Accumulated deficit was RMB4.7 billion and RMB5.4 billion as of December 31, 2021 and 2022, respectively. As of December 31, 2022, the Group was in a net current liability position of RMB1,308.6 million. The Group assesses its liquidity by its ability to generate cash from operating activities and attract additional capital and/or finance funding.

Historically, the Group has relied principally on both operational sources of cash and non-operational sources of financing from NetEase Group and investors to fund its operations and business development. The Group's ability to continue as a going concern is dependent on management's ability to successfully execute its business plan, which includes increasing revenues while controlling operating expenses, as well as, generating operational cash flows and continuing to gain support from outside sources of financing. The Group has been continuously receiving financing support from NetEase Group and according to the support letter signed by NetEase Group in April 2023, NetEase Group will continue to provide financial support in the next twenty-five months from the date of issuance of financial statement. Refer to Note 20 for details of the Group's relationship with NetEase Group for financing activities. In October 2019, the Company has completed its IPO on the New York Stock Exchange ("NYSE") and the concurrent private placement (the "CPP") to certain investment funds managed by Orbis Investment Management Limited, raising the net proceeds of US\$88.2 million (or equivalent to RMB621.9 million) and US\$125.0 million (or equivalent to RMB881.7 million), respectively. In February 2021, the Company completed a follow-on offering of 7,000,000 ADSs with a total net proceeds of approximately US\$231.6 million (or equivalent to RMB 1,498.6 million) after deducting the underwriter commissions and relevant offering expenses. In April 2021, the Group entered into an agreement with NetEase to provide US\$300.0 million of revolving facility loan to the Company. As of December 31, 2022, the Company had drawn down US\$75.0 million under the facility with maturity dated March 31, 2024. Moreover, the Group can adjust the pace of its operation expansion and control the operating expenses. Based on the above considerations, the Group believes that funds from the equity financing and available loan facilities will be sufficient to meet the cash requirements to fund planned operations and other commitments for at least the next twelve months. The Group's consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and liquidation of liabilities in the normal course of business.

2. Summary of Significant Accounting Policies

(a) Basis of presentation

The consolidated financial statements of the Group have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Significant accounting policies followed by the Group in the preparation of the accompanying consolidated financial statements are summarized below.

(b) Principles of consolidation

Subsidiaries are those entities in which the Company, directly or indirectly, controls more than one half of the voting power, has the power to appoint or remove the majority of the members of the board of directors, or to cast a majority of votes at the meeting of the board of directors, or has the power to govern the financial and operating policies of the investee under a statute or agreement among the shareholders or equity holders.

A consolidated VIE is an entity in which the Company, or its subsidiary, through contractual arrangements, has the power to direct the activities that most significantly impact the entity's economic performance, bears the risks of and enjoys the rewards normally associated with ownership of the entity, and therefore the Company or its subsidiary is the primary beneficiary of the entity.

All significant intercompany balances and transactions within the Group have been eliminated upon consolidation.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(c) Discontinued operations

The Group reports a disposal of its component or a group of its components as discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on the Group's operations and financial results. Classification as a discontinued operation occurs upon disposal or when the operation meets the criteria to be classified as held for sale, if earlier. In the period that a discontinued operation is classified as held for sale, the assets and liabilities of the discontinued operation are presented separately in asset and liability sections, respectively, of the consolidated balance sheets and prior periods are presented on a comparative basis. In the consolidated statements of operations and comprehensive loss, the results from discontinued operations are reported separately from the income and expenses from continuing operations and prior periods are presented on a comparative basis. Cash flows for discontinued operations are presented separately in the consolidated statements of cash flows. Unless otherwise noted, discussion in the Notes to consolidated financial statements refers to the Group's continuing operations. Refer to Note 3 for additional information.

(d) Use of estimates

The preparation of the Group's consolidated financial statements in conformity with the U.S. GAAP requires management to make estimates and assumptions which affect the reported amounts of assets and liabilities, disclosure of contingent liabilities at the balance sheet date and reported revenues and expenses during the reported periods in the consolidated financial statements and accompanying notes.

Significant accounting estimates include, but are not limited to, determination of the learning period of the customers, fair value of assets and liabilities acquired in business combinations, allowances for expected credit losses, assessment for impairment of long-lived assets, intangible assets and goodwill, lower of cost and net realizable value of inventories, valuation allowance of deferred tax assets, valuation and recognition of share-based compensation expenses. Actual results could differ from those estimates and such differences may be material to the consolidated financial statements.

(e) Functional currency and foreign currency translation

The Group uses Renminbi ("RMB") as its reporting currency. The functional currency of the Company is United States dollars ("US\$" or "USD"). The functional currency of the Company's PRC subsidiaries, VIEs, VIEs' subsidiaries as well as one subsidiary incorporated in Hong Kong is RMB. The determination of the respective functional currencies based on the criteria of ASC 830, *Foreign Currency Matters*.

In the consolidated financial statements, the financial information of the Company has been translated into RMB. Assets and liabilities are translated at the exchange rates on the balance sheet date, equity amounts are translated at historical exchange rates, and revenues, expenses, gains and losses are translated using the average rate for the period. Translation adjustments are reported as foreign currency translation adjustments, and are shown as a component of other comprehensive loss in the consolidated statements of operations and comprehensive loss.

Foreign currency transactions denominated in currencies other than the functional currency are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency using the applicable exchange rates at the balance sheet date. Net gains and losses resulting from foreign exchange transactions are included in others, net in the consolidated statements of operations and comprehensive loss.

(f) Convenience translation

Translations of balances in the consolidated balance sheets, consolidated statements of operations and comprehensive loss and consolidated statements of cash flows from RMB into USD as of and for the year ended December 31, 2022 are solely for the convenience of the reader and were calculated at the rate of US\$1.00 = RMB 6.8972, representing the exchange rate set forth in the H.10 statistical release

of the Federal Reserve Board on December 30, 2022. No representation is made that the RMB amounts represent or could have been, or could be, converted, realized or settled into USD at that rate on December 31, 2022, or at any other rate.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(g) Fair value measurements

Fair value reflects the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Group considers the principal or most advantageous market in which it would transact and it considers assumptions that market participants would use when pricing the asset or liability.

The Group applies a fair value hierarchy that requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Accounting guidance specifies a hierarchy of valuation techniques, which is based on whether the inputs into the valuation techniques are observable or unobservable. The hierarchy is as follows:

Level 1—Valuation techniques in which all significant inputs are unadjusted quoted prices from active markets for assets or liabilities that are identical to the assets or liabilities being measured.

Level 2—Valuation techniques in which significant inputs include quoted prices from active markets for assets or liabilities that are similar to the assets or liabilities being measured and/or quoted prices for assets or liabilities that are identical or similar to the assets or liabilities being measured from markets that are not active. Also, model-derived valuations in which all significant inputs and significant value drivers are observable in active markets are Level 2 valuation techniques.

Level 3—Valuation techniques in which one or more significant inputs or significant value drivers are unobservable. Unobservable inputs are valuation technique inputs that reflect the Group's own assumptions about the assumptions that market participants would use in pricing an asset or liability.

Accounting guidance also describes three main approaches to measure the fair value of assets and liabilities: (1) market approach; (2) income approach and (3) cost approach. The market approach uses prices and other relevant information generated from market transactions involving identical or comparable assets or liabilities. The income approach uses valuation techniques to convert future amounts to a single present value amount. The measurement is based on the value indicated by current market expectations about those future amounts. The cost approach is based on the amount that would currently be required to replace an asset.

When available, the Group uses quoted market prices to determine the fair value of an asset or liability. If quoted market prices are not available, the Group will measure fair value using valuation techniques that use, when possible, current market-based or independently sourced market parameters, such as interest rates and currency rates.

Financial assets and liabilities of the Group primarily consist of cash and cash equivalents, time deposits, restricted cash, short-term investments, accounts receivable, other receivables, amounts due from/to NetEase Group, accounts payables, contract liabilities, accrued liabilities and other payables, short-term loans and long-term loans from NetEase Group of which the carrying values approximate their fair value. Please see Note 18 for additional information.

(h) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and demand deposits, which have original maturities less than three months and are readily convertible to known amount of cash.

(i) Time deposits

Time deposits represent time deposits placed with banks with original maturities of three months or more than three months but less than one year. Interest earned is recorded as interest income in the consolidated statements of operations and comprehensive loss during the periods presented.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(j) Restricted cash

Restricted cash represents cash deposits for the upfront tuition fee in the government custodian account required by the PRC government authorities.

(k) Receivables, net

The Group closely monitors the collection of its receivables and records a reserve for doubtful accounts against aged accounts and for specifically identified non-recoverable amounts for periods prior to January 1, 2020. If the economic situation and the financial condition of the customer deteriorate resulting in an impairment of the customer's ability to make payments, additional allowances might be required. Receivable balances are written off when they are determined to be uncollectible. From January 1, 2020, the Group's receivables are subject to the measurement of credit losses within the scope of ASC 326. To estimate expected credit losses, the Group has identified the relevant risk characteristics of its customers and the related receivables and other receivables which include size, type of the services or the products the Group provides, or a combination of these characteristics. Receivables with similar risk characteristics have been grouped into pools. For each pool, the Group considers the past collection experience, current economic conditions, future economic conditions (external data and macroeconomic factors) and changes in the Group's customer collection trends. This is assessed at each quarter based on the Group's specific facts and circumstances.

(l) Investments

i) Short-term investments

Short-term investments include investments in financial instruments with a variable interest rate indexed to performance of underlying assets. In accordance with ASC 825, *Financial Instruments*, the Group elected the fair value option at the date of initial recognition and carried these investments at fair value. Changes in the fair value are reflected in the consolidated statements of operations and comprehensive loss as others, net.

ii) Long-term investments

Long-term investments are comprised of equity investments in privately-held companies and limited partnership.

For investments in ordinary shares or in-substance ordinary shares issued by privately-held companies on which the Group does not have significant influence, and investments in privately-held companies' shares that are not ordinary shares or in-substance ordinary shares, as these equity securities do not have readily determinable fair value, the Group measures these equity investments without readily determinable fair value at cost, less impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer (referred to as the measurement alternative). All gains and losses on these equity investments, realized and unrealized, are recognized in others, net in the consolidated statements of operations and comprehensive loss.

Investments in ordinary shares or in-substance ordinary shares of privately-held companies and limited partnership in which the Group has significant influence by participating in, but not controlling or jointly controlling, the financial and operating policies are accounted for using the equity method.

Management regularly evaluates the impairment of the equity investments without readily determinable fair value and equity method investments at each balance sheet date, or more frequently if events or circumstances indicate that the carrying amount may not be recoverable. For investments without readily determinable fair values, management performs a qualitative assessment of impairment indicators. If considered impaired, management estimates the fair value of the investment, and records an impairment in the consolidated statements of operations and comprehensive loss to the extent the carrying amount exceeds the fair value. For equity method investments,

management considers if the investment is impaired when events or circumstances suggest the carrying amount may not be recoverable, and recognizes any impairment charge in the consolidated statements of operations and comprehensive loss for a decline in value that is determined to be other than temporary. The Group recognized impairment losses on long-term investments of nil, RMB7,000, and RMB 10,300 for the years ended December 31, 2020, 2021 and 2022, respectively (Note 15).

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(m) Inventories

Inventories, consisting of smart devices and learning materials for tutoring services, are stated at the lower of cost and net realizable value. Cost of inventory is determined using the weighted average cost method. Adjustments are recorded to write down the cost of inventory to the estimated net realizable value due to slow-moving merchandise and damaged goods, which is dependent upon factors such as historical and forecasted consumer demand, and promotional environment. The Group takes ownership, risks and rewards of the products purchased, but has arrangements to return unsold goods with certain vendors. Write downs are recorded in cost of revenues in the consolidated statements of operations and comprehensive loss.

(n) Property, equipment and software, net

Property, equipment and software are stated at cost less accumulated depreciation and impairment, if any. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, which range as follows:

Servers and computers	3 years
Furniture, fixtures, office and other equipment	3-10 years
Leasehold improvements	The shorter of the useful life or term of the lease
Software and others	3-5 years

Expenditures for maintenance and repairs are expensed as incurred. The gain or loss on the disposal of property, equipment and software is the difference between the net sales proceeds and the carrying amount of the relevant assets and is recognized in the consolidated statements of operations and comprehensive loss.

(o) Goodwill

Goodwill represents the excess of the purchase consideration over the fair value of the identifiable assets acquired and the liabilities assumed in business combination.

Goodwill is not amortized but is tested for impairment at the reporting unit level on an annual basis by the end of year, and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Under ASC 350-20-35, the Group has the option to choose whether it will apply the qualitative assessment first and then the quantitative assessment, if necessary, or to apply the quantitative assessment directly. The Group will perform the quantitative impairment test if the Group bypasses the qualitative assessment, or based on the qualitative assessment, if it is more likely than not that the fair value of the reporting unit is less than its carrying amount. The quantitative impairment test is comparing the fair value of the reporting unit with its carrying amount. If the fair value of the reporting unit exceeds its carrying amount, goodwill is not impaired. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Application of a goodwill impairment test requires significant management judgment, including the identification of reporting units, assigning assets and liabilities to reporting units, assigning goodwill to reporting units, and determining the fair value of each reporting unit. The judgment in estimating the fair value of reporting units includes estimating future cash flows, determining appropriate discount rates and making other assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(p) Impairment of long-lived assets

Long-lived assets are evaluated for impairment whenever events or changes in circumstances (such as a significant adverse change to market conditions that will affect the future use of the assets) indicate that the carrying value of an asset may not be fully recoverable or that the useful life is shorter than the Group had originally estimated. When these events occur, the Group evaluates the impairment for the long-lived assets by comparing the carrying value of the assets to an estimate of future undiscounted cash flows expected to be generated from the use of the assets and their eventual disposition. If the sum of the expected future undiscounted cash flows is less than the carrying value of the assets, the Group recognizes an impairment loss based on the excess of the carrying value of the assets over the fair value of the assets. The Group recognized impairment losses on intangible assets from business combination of nil, RMB56,778, and nil for the years ended December 31, 2020, 2021 and 2022, respectively.

(q) Revenue recognition

The Group adopted ASC 606, *Revenue from Contracts with Customers* ("ASC 606"), for all periods presented. According to ASC 606, revenues from contracts with customers are recognized when control of the promised goods or services is transferred to the Group's customers, in an amount that reflects the consideration the Group expects to be entitled to in exchange for those goods or services, reduced by estimates for return allowances, promotional discounts, rebates and value added tax ("VAT").

Disaggregation of net revenues

For the years ended December 31, 2020, 2021 and 2022, substantially all of the Group's net revenues were generated in the PRC. The following table provides information about disaggregated revenue by types:

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Learning services	1,513,960	2,441,421	3,084,375
Tutoring services	1,369,010	2,271,036	2,886,126
Fee-based premium services	144,950	170,385	198,249
Smart devices	539,962	980,424	1,256,446
Online marketing services	472,884	593,949	672,361
Total net revenues	2,526,806	4,015,794	5,013,182

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(q) Revenue recognition (Continued)

i) Learning services

Tutoring services

The Group offers various types of integrated learning services, which primarily cover a wide spectrum of topics and target people from broad age groups through its diverse offerings of tutoring courses and digital learning contents, foreign languages, professional and interest education services as well as IT computer skills, etc. The Group's tutoring courses consist of online live streaming and other activities during the online live streaming period including teaching material, quiz banks, online chat rooms, summary of lessons after each class and interactions with both students and instructors. Once the online live streaming is completed, the Group also offers the customer a content playback service. With respect to the content playback service, the customer has unlimited access to previous live streaming courses for a specified period. The services of online live streaming, playback service, as well as the other activities provided mentioned above are highly interdependent and interrelated in the context of the contract and are only considered accessory services to the online live streaming courses and therefore are not distinct and are not sold standalone. Therefore, the Group's tutoring courses are accounted for as a single performance obligation. This performance obligation is satisfied over the learning period of the customers. Accordingly, the Group recognizes the revenues ratably over the estimated average learning period for different courses. The Group considers the average period that customers typically spend time on the courses and other learning behavior patterns to arrive at the best estimate for the estimated learning period for each course based on the estimated learning time customers spend on the courses and the expected number of times customers will take the courses.

The Group's tutoring courses also consist of online pre-recorded video services, revenues are recognized ratably over the estimated average learning period for different courses, similar with the online live streaming courses.

The Group also offers digital learning contents to customers which are delivered together with online live streaming courses and customized planning services. The customers can either stream the digital learning contents online or download and watch them offline. The downloadable digital learning contents, streaming services, online live streaming courses and customized planning services are considered as distinct performance obligations in the contract. The transaction price is generally collected in advance and allocated to each performance obligation in the contract based on the relative standalone selling prices. The Group recognizes the revenues of downloadable digital learning contents as the performance obligation is satisfied upon the time of delivery. The revenues of streaming services and customized planning services are recognized ratably over the service period. For online live streaming courses, the revenues are recognized ratably over the estimated average learning period.

The estimated weighted average duration of learning periods is approximately ranged from four to six months for the years ended December 31, 2020, 2021 and 2022 for both live streaming courses and pre-recorded courses.

There is a refund policy provided to customers for tutoring services, depending on whether the course had commenced at the time of the refund request, the length of the course, the number of sessions that the student has taken, among other criteria. The Group determines the transaction price to be earned by estimating the refund liabilities based on historical refund ratio on a portfolio basis using the expected value method.

The Group also provides discount coupons to its customers for use in purchases on tutoring services, which are treated as a reduction of revenue when the related transaction is recognized.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(q) Revenue recognition (Continued)

i) Learning services (Continued)

Fee-based premium services

Fee-based premium services revenues, mostly operated on either consumption-basis or a monthly subscription basis, are derived principally from providing premium services of *Youdao Dictionary*, *Youdao Smart Cloud*, as well as translation services. Prepaid subscription fees collected from customers are deferred and are recognized as revenue on a straight-line basis by the Group over the subscription period, during which customers can access the premium services provided by the Group. Fees collected from customer to purchase translation services are recognized as revenue when related services are rendered. The Group also provides its customers the access to smart cloud system, through which customers could use automatic scanning, image recognition and speech recognition services. The Group recognizes the revenues related to smart cloud services based on a consumption basis or ratably over the service period.

ii) Smart devices

The Group sells smart devices such as dictionary pens, translation devices to customers through retailers or distributors. The Group recognizes revenues when control of the goods is transferred to the customer, which generally occurs upon the delivery to the end customers or upon the delivery to distributors.

Along with certain tutoring services, the Group also provides smart devices such as smart pens to facilitate customers' learnings. For such situation, the Group has determined that the smart devices are a separate performance obligation under ASC 606, as customers can benefit from smart devices on their own and the Group's promises to deliver smart devices is separately identifiable from tutoring services. The Group determines stand-alone selling price to each performance obligation in the approach of expected cost-plus margin. Revenue from smart devices is recognized when they are delivered to customers.

iii) Online marketing services

The Group derives its online marketing revenues principally from short-term contracts. The online marketing services with display period, the contracts may consist of multiple performance obligations with a typical term of less than three months. Each performance obligation generally represents different formats of advertisement, including but not limited to banners, text-links, videos, logos, buttons and rich media. In arrangements where the Group has multiple performance obligations, the transaction price is allocated to each performance obligation using the relative stand-alone selling price. The Group generally determines stand-alone selling prices based on the prices charged to customers. If the performance obligation has not been sold separately, the Group estimates the stand-alone selling price by taking into consideration of the pricing for advertising areas of the Group's platform with a similar popularities and advertisements with similar formats and quoted prices from competitors as well as other market conditions. Considerations allocated to each performance obligation is recognized as revenue over the individual advertisement display period, on a straight-line basis, which is usually within three months.

YUDDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(q) Revenue recognition (Continued)

iii) Online marketing services (Continued)

The Group also enters into cost-per-click ("CPC") advertising arrangements with customers, under which the Group recognizes revenues based on the number of actions completed resulted from the advertisements, including but not limited to when users click on links. The Group provides a technology enhanced advertising solution to advertisers, including advising advertisers to optimize delivery strategies, choose delivery channels and spaces, select key words, etc. These advertising planning services are not distinct and not considered separate performance obligations, but rather part of the advertising performance obligations.

The Group's online marketing services expand distribution of advertisers' promotional links and advertisements by leveraging traffic on third parties' internet properties, including web content, software, and mobile applications. The Group is the primary obligor to its advertisers as it is primarily responsible to the customers, bears inventory risk and has the discretion in establishing pricing. Payments made to operators of third-party internet properties are included in the traffic acquisition costs.

Certain customers may receive volume rebates, which are accounted for as variable consideration. The Group estimates annual expected revenue volume with reference to their historical results and reduce revenues recognized.

Practical expedients

The Group has used the following practical expedients as allowed under ASC 606:

- (i) The effects of a significant financing component have not been adjusted for contracts which the Group expects, at contract inception, that the period between when the Group transfers a promised good or service to the customer and when the customer pays for that good or service will be one year or less.
- (ii) The Group applied the portfolio approach in determining the learning period of the customers given that the effect of applying a portfolio approach to a group of students' behaviors would not differ materially from considering each one of them individually.

Contract balances

Timing of revenue recognition may differ from the timing of invoicing to customers. Accounts receivable represent amounts invoiced and revenue recognized prior to invoicing, when the Group has satisfied its performance obligations and has the unconditional right to payment.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(q) Revenue recognition (Continued)

Contract balances (Continued)

Contract liabilities

Contract liabilities refer to the deferred revenue and refund liabilities.

Deferred revenue is relating to the learning tuition, online marketing services and fee-based premium services with fees received from customers for which the Group's revenue recognition criteria have not been met. Revenue recognized that was included in the deferred revenue balance at January 1, 2021 and January 1, 2022 amounted to RMB854,342 and RMB941,246, respectively.

As of December 31, 2022, the aggregate amount of transaction price allocated to unsatisfied performance obligations is RMB 1,021.0 million which includes deferred revenue balances and amounts to be invoiced and recognized as revenue in future periods. The Group expects to recognize RMB1,013.4 million as revenue over the next 12 months. This balance does not include an estimate for variable consideration arising from sales rebates to advertising service customers.

Refund liabilities represent the consideration collected by the Group which it expects to refund to its customers according to refund policy. Refund liabilities are estimated based on the historical refund ratio for each of the revenue streams. The refund liabilities were not material, as of December 31, 2021 and 2022. In the event that the actual amount of refund made exceeds the estimation, such excessive amount will be deducted from net revenues.

(r) Cost of revenues

Cost of revenues primarily consists of the revenue sharing and payroll expenses to instructors and tutors, traffic acquisition costs, content costs, servers and bandwidth service fees and other direct costs of providing these services as well as costs of smart devices sold.

(s) Sales and marketing expenses

Sales and marketing expenses mainly consist of marketing and promotional expenses, payroll related expenses and third-party service fee for outsourced sales and marketing functions. The Group expenses all advertising costs as incurred and classifies these costs under sales and marketing expenses. For the years ended December 31, 2020, 2021 and 2022, advertising expenses were RMB1,122.1 million, RMB1,393.3 million and RMB1,479.0 million, respectively.

(t) Research and development expenses

Research and development expenses mainly consist of personnel related expenses and technology service costs incurred for the learning courses and its development, as well as development and enhancement of the Group's websites and applications platforms.

For internal use software, the Group expenses all costs incurred for the preliminary project stage and post implementation-operation stage of development, and costs associated with repair or maintenance of the existing platforms. Costs incurred in the application development stage are capitalized and amortized over the estimated useful life. Since the amount of the Group's research and development expenses qualifying for capitalization has been immaterial, as a result, all development costs incurred for development of internal used software have been expensed as incurred.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(t) Research and development expenses (Continued)

For external use software, costs incurred for development of external use software have not been capitalized since the inception of the Group, because the period after the date technical feasibility is reached and the time when the software is marketed is short historically, and the amount of costs qualifying for capitalization has been immaterial.

No costs incurred for development of learning content, products and advertising services have been capitalized because the period after the date technical feasibility is reached and the time when relevant products and services are marketed is historically short.

(u) Share-based compensation

The Group grants options to its employees, directors and consultants with performance conditions and service conditions. In accordance with ASC 718, *Compensation-Stock Compensation*, the Group determines grants of options to directors, employees and consultants, which are classified as equity awards and are measured at the grant date based on the fair value of the awards.

The Group adopts the binomial option pricing model to determine the fair value of stock options. The determination of the fair value of stock options is affected by the fair value of ordinary shares as well as assumptions regarding a number of complex and subjective variables, including the expected share price volatility, actual and projected employee share option exercise behavior, risk free interest rates and expected dividends. Upon the completion of the IPO, the market price of the Company's publicly traded ADSs is used as an indicator of fair value of ordinary shares for purposes of recording share-based compensation expenses. Share-based compensation expenses for share options granted with service conditions are recorded net of estimated forfeitures using graded-vesting method during the service period requirement, such that expenses are recorded only for those share-based awards that are expected to ultimately vest.

The Group also recognizes compensation expenses on restricted share units, or RSUs, granted by the Parent to the employees of the Group. RSUs are measured based on the fair market value of the underlying stock on the dates of grant. Share-based compensation expenses related are then recorded for the number of RSUs expected to vest on a graded-vesting basis, net of estimated forfeitures, over the requisite service period.

(v) Employee benefits

PRC Contribution Plan

Full-time employees of the Group in the PRC participate in a government mandated defined contribution plan, pursuant to which certain pension benefits, medical care, employee housing fund and other welfare benefits are provided to the employees. Chinese labor regulations require that the PRC subsidiaries and the VIEs of the Group make contributions to the government for these benefits based on certain percentages of the employees' salaries, up to a maximum amount specified by the local government. The Group has no legal obligation for the benefits beyond the contributions made. The total amounts of such employee benefit expenses, which were expensed as incurred, were approximately RMB68,002, RMB222,690 and RMB322,168 for the years ended December 31, 2020, 2021 and 2022, respectively.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(w) Taxation

Income taxes

Current income taxes are provided on the basis of income/(loss) for financial reporting purposes, adjusted for income and expense items which are not assessable or deductible for income tax purposes, in accordance with the regulations of the relevant tax jurisdictions. Deferred income taxes are provided using the liability method. Under this method, deferred income taxes are recognized for the tax consequences of temporary differences by applying enacted statutory rates applicable to future years to differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities. The tax base of an asset or liability is the amount attributed to that asset or liability for tax purposes. The effect on deferred taxes of a change in tax rates is recognized in the consolidated statements of operations and comprehensive loss in the period of change. A valuation allowance is provided to reduce the amount of deferred tax assets if it is considered more likely than not that some portion of, or all of the deferred tax assets will not be realized.

Uncertain tax positions

In order to assess uncertain tax positions, the Group applies a more likely than not threshold and a two-step approach for the tax position measurement and financial statement recognition. Under the two-step approach, the first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not, that the position will be sustained, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. The Group recognizes interest and penalties, if any, under accrued expenses and other current liabilities on its consolidated balance sheets and under other expenses in its consolidated statements of operations and comprehensive loss. The Group did not have any significant unrecognized uncertain tax positions as of and for the years ended December 31, 2020, 2021 and 2022 nor did the Group recognize any related interest and penalties.

(x) Business combinations

The Group accounts for its business combination using the acquisition method of accounting in accordance with ASC 805, *Business Combinations*. The cost of an acquisition is measured as the aggregate of the acquisition date fair values of the assets transferred and liabilities assumed by the Group to the sellers and equity instruments issued. Transaction costs directly attributable to the acquisition are expensed as incurred. Identifiable assets and liabilities acquired or assumed are measured separately at their fair values as of the acquisition date, irrespective of the extent of any noncontrolling interests. The excess of (i) the total costs of acquisition, fair value of the noncontrolling interests and acquisition date fair value of any previously held equity interest in the acquiree over (ii) the fair value of the identifiable net assets of the acquiree is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in the consolidated statements of operations and comprehensive loss. During the measurement period, which can be up to one year from the acquisition date, the Group may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded on the consolidated statements of operations and comprehensive loss.

If a business combination is under common control, the acquired assets and liabilities are recognized at their historical book value. The consolidated financial statements include the results of the acquired entities from the earliest date presented or, if more recent, from the date when the entities first came under common control, regardless of the date of the combination. Consolidated financial statements for prior years would also be retrospectively adjusted for periods during which the entities were under common control.

In a business combination achieved in stages, the Company remeasures its previously held equity interest in the acquiree immediately before obtaining control at its acquisition-date fair value and the re-measurement gain or loss, if any, is recognized in others, net in the consolidated statements of operations and comprehensive loss.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(x) Business combinations (Continued)

The determination and allocation of fair values to the identifiable assets acquired, liabilities assumed and noncontrolling interests is based on various assumptions and valuation methodologies requiring considerable judgment from management. The most significant variables in these valuations are discount rates, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. The Company determines discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons.

(y) Operating leases

The Group has operating leases primarily for office space. The determination of whether an arrangement is a lease or contains a lease is made at inception by evaluating whether the arrangement conveys the right to use an identified asset and whether the Group obtains substantially all of the economic benefits from and has the ability to direct the use of the asset. The Group elects not to recognize lease liabilities and associated right-of-use assets for leases with a term of twelve months or less ("short-term leases"). Variable lease payments are the payments made by a lessee to a lessor for the right to use an underlying asset that vary because of changes in facts or circumstances occurring after the commencement date, other than the passage of time. Variable lease payments are recorded in the period in which the obligation for the payment is incurred. Other operating leases are included in operating lease right-of-use assets, accrued liabilities and other payables, and long-term lease liabilities on the consolidated balance sheets.

The Group uses the implicit rate when readily determinable, or its incremental borrowing rate based on the information available, at the commencement date in determining the present value of lease payments. Certain leases include renewal options and/or termination options. Renewal options are included in the lease term if the Group is reasonably certain to exercise those options while options to terminate the lease are only included in the lease term if the Group is reasonably certain not to exercise those options. Lease expenses are recorded on a straight-line basis over the lease term.

(z) Related parties

Parties are considered to be related if one party has the ability, directly or indirectly, to control the other party or exercise significant influence over the other party in making financial and operating decisions. Parties are also considered to be related if they are subject to common control or significant influence, such as a family member or relative, shareholder, or a related corporation.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(aa) Noncontrolling interests and Redeemable noncontrolling interests

For the Company's majority-owned subsidiaries and VIEs, noncontrolling interests are recognized to reflect the portion of their equity that are not attributable, directly or indirectly, to the Company as the controlling shareholders.

The noncontrolling interest will continue to be attributed with its share of losses even if that attribution results in a deficit noncontrolling interest balance.

Redeemable noncontrolling interests represent redeemable equity interests issued by a VIE's subsidiary of the Group to certain noncontrolling shareholders (Note 5), and have been classified as mezzanine classified noncontrolling interests in the consolidated financial statements as these interests are contingently redeemable upon the occurrence of certain conditional events, which is not solely within the control of the Group. The accretion of the redeemable equity interests would be recognized when the redemption value is over the balance of noncontrolling interests.

(bb) Net loss per share

Net loss per share is computed in accordance with ASC 260, *Earnings per Share*. Basic net loss per share is computed by dividing net loss attributable to ordinary shareholders, by the weighted average number of ordinary shares outstanding during the year. Diluted net loss per share is computed using the weighted average number of ordinary shares and potential ordinary shares outstanding during the period under treasury stock method. Potential ordinary shares include options to purchase ordinary shares and preferred shares, unless they were anti-dilutive. The computation of diluted net loss per share does not assume conversion, exercise, or contingent issuance of securities that would have an anti-dilutive effect (i.e. an increase in earnings per share amounts or a decrease in loss per share amounts) on net loss per share.

(cc) Statutory reserves

The Company's subsidiaries and VIEs established in the PRC are required to make appropriations to certain non-distributable reserve funds. In accordance with China's Company Laws, the Company's VIEs registered as Chinese domestic company make appropriations from their after-tax profit (as determined under the accounting principles generally acceptable in the People's Republic of China ("PRC GAAP")) to non-distributable reserve funds including (i) statutory surplus fund and (ii) discretionary surplus fund. The appropriation to the statutory surplus fund must be 10% of the annual after-tax profits calculated in accordance with PRC GAAP. Appropriation is not required if the statutory surplus fund has reached 50% of the registered capital of the respective company. Appropriation to the discretionary surplus fund is made at the discretion of the respective company.

Pursuant to the laws applicable to China's Foreign Investment Enterprises, the Company's subsidiaries registered as majority-owned or wholly-owned foreign investment enterprise ("FIE") in China make appropriations from their annual after-tax profit (as determined under PRC GAAP) to reserve funds including: (i) general reserve fund, (ii) enterprise expansion fund and (iii) staff bonus and welfare fund. The appropriation to the general reserve fund must be at least 10% of the after-tax profits calculated in accordance with PRC GAAP. Appropriation is not required if the general reserve fund has reached 50% of the registered capital of the respective company. Appropriations to the other two reserve funds are at the respective companies' discretion.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(dd) Comprehensive loss

Comprehensive loss is defined to include all changes in equity deficit of the Group during a period arising from transactions and other events and circumstances excluding transactions resulting from investments by shareholders and distributions to shareholders. Comprehensive loss includes net loss and foreign currency translation adjustment of the Group.

(ee) Segment reporting

In accordance with ASC 280, *Segment Reporting*, operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker ("CODM"), or decision-making group, in deciding how to allocate resources and in assessing performance. The Group's CODM is the Chief Executive Officer. The Group's organizational structure is based on a number of factors that the CODM uses to evaluate, view and run its business operations which include, but are not limited to, customer base, homogeneity of products and technology. The Group's operating segments are based on this organizational structure and information reviewed by the Group's CODM to evaluate the operating segment results.

Effective in the fourth quarter of 2020, the Group changed its segment disclosure to separately report the results of its smart devices business. As a result, the Group now reports segments as learning services, smart devices and online marketing services. This change in segment reporting aligns with the manner in which the Group's CODM currently receives and uses financial information to allocate resources and assess the performance of reporting segments. This change in segment presentation does not affect consolidated balance sheets, consolidated statements of operations and comprehensive loss or consolidated statements of cash flows.

The Group currently does not allocate operating expenses or assets to its segments, as its CODM does not use such information to allocate resources or evaluate the performance of the operating segments. As the Group's long-lived assets are substantially all located in the PRC and the Group's revenues are substantially derived from the PRC, no geographical segments are presented.

(ff) Recently adopted accounting pronouncements

In May 2021, the FASB issued ASU 2021-04, *Earnings Per Share (Topic 260)*, *Debt — Modifications and Extinguishments (Subtopic 470-50)*, *Compensation — Stock Compensation (Topic 718)*, and *Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40)* to clarify and reduce diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options (for example, warrants) that remain equity classified after modification or exchange. The amendments in this update are effective for all entities for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. An entity should apply the amendments prospectively to modifications or exchanges occurring on or after the effective date of the amendments. The impact of adopting the new standard was not material to the consolidated financial statements.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

2. Summary of Significant Accounting Policies (Continued)

(gg) Recently issued accounting pronouncements not yet adopted

In October 2021, the FASB issued ASU 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* (ASU 2021-08), which clarifies that an acquirer of a business should recognize and measure contract assets and contract liabilities in a business combination in accordance with Topic 606, Revenue from Contracts with Customers. The new amendments are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. The amendments should be applied prospectively to business combinations occurring on or after the effective date of the amendments, with early adoption permitted. The Group is currently evaluating the impact of the new guidance on the consolidated financial statements.

In June 2022, the FASB issued ASU 2022-03, *Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions*, which clarifies that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. The amendments also clarify that an entity cannot, as a separate unit of account, recognize and measure a contractual sale restriction. This guidance also requires certain disclosures for equity securities subject to contractual sale restrictions. The new guidance is required to be applied prospectively with any adjustments from the adoption of the amendments recognized in earnings and disclosed on the date of adoption. This guidance is effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. Early adoption is permitted. The Group is currently evaluating the impact of the new guidance on the consolidated financial statements.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
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3. Discontinued operations

In September 2021, the Company's Board of Directors approved a plan to dispose of its after-school tutoring services for academic subjects in China's compulsory education system (the "Academic AST Business") to an unaffiliated third party non-profit organization (the "Organization"), as part of its effort to fully comply with applicable PRC regulatory requirements. In the end of December 2021, the Organization qualified to operate the Academic AST Business and the Group ceased offering the Academic AST Business. The Group determined to sell the Academic AST Business to the Organization, and the held for sale criteria was met. In February 2022, the disposal was completed without consideration and immaterial disposal loss was recognized accordingly.

The disposal represented a strategic shift that had a major effect on the Group's operations and financial results and was accounted for as discontinued operations. The Group has classified the historical financial results of Academic AST Business as discontinued operations in the Group's consolidated statements of operations and comprehensive loss for all periods presented.

The following tables set forth the assets classified as held for sale and statement of operations of discontinued operations which were included in the Group's consolidated financial statements:

	As of December 31,	
	2021	2022
	RMB	RMB
Inventories	204	—
Prepayment and other current assets	293	—
Total current assets	497	—
Property, equipment and software, net	1,088	—
Total non-current assets	1,088	—
Total assets	1,585	—

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Net revenues	640,709	1,338,563	—
Cost of revenues	(293,860)	(421,190)	(3,972)
Gross profit/(loss)	346,849	917,373	(3,972)
Operating expenses:			
Sales and marketing expenses	(1,223,414)	(862,153)	—
Research and development expenses	(52,409)	(97,521)	(475)
General and administrative expenses	(25,353)	(57,966)	—
Total operating expenses	(1,301,176)	(1,017,640)	(475)
Loss from operations	(954,327)	(100,267)	(4,447)
Others, net	—	—	(1,658)
Net loss from discontinued operations	(954,327)	(100,267)	(6,105)

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

4. Concentration and Risks

Financial instruments that potentially expose the Group to significant concentration of credit risk primarily consist of cash and cash equivalents, time deposits, restricted cash, short-term investments and accounts receivable. As of December 31, 2021 and 2022, substantially all of the Group's cash and cash equivalents, time deposits, restricted cash and short-term investments were held in major financial institutions located in Mainland China and Hong Kong, which management considered being of high credit quality.

Accounts receivable are typically unsecured and are derived from revenues earned from reputable customers. There was one customer with a receivable balance exceeding 10% of the total accounts receivable balance as of December 31, 2021 and 2022, respectively as follows. The risk with respect to accounts receivable is mitigated by credit evaluations the Group performs on its customers and its ongoing monitoring process of outstanding balances.

	As of December 31,	
	2021	2022
Customer A	17%	*
Customer B	*	29%

There were no revenues from customers which individually represent greater than 10% of the total net revenues for the years ended December 31, 2020, 2021 and 2022. There was one instructor, through whom the Group's net learning services revenue earned was more than 10% of the Group's net learning services revenue for the years ended December 31, 2020, 2021 and 2022 respectively as follows:

	For the year ended December 31,		
	2020	2021	2022
Instructor A	18%	*	*
Instructor B	*	16%	*
Instructor C	*	*	18%

* The percentage was below 10% for the year.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
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5. Business Combinations

In June 2020, the Group acquired 92.5% equity interest of a private company, which primarily provides kids programming courses to its users, with cash consideration of RMB7,700. Total consideration was paid by the Group in July 2020. The Group began to consolidate its financial statements from June 2020 and the remaining 7.5% equity interest was recognized as noncontrolling interests on the balance sheet upon the acquisition date. The goodwill was allocated to learning services segment. Consideration for this transaction was allocated on the acquisition date based on the fair value of the assets acquired and the liabilities assumed as follows:

	<u>As of the acquisition date</u> RMB
Consideration	7,700
Noncontrolling interests	624
Total	8,324
Cash and cash equivalents	1,302
Other tangible assets	156
Liabilities assumed	(72)
Goodwill	6,938
Total	8,324

The acquisition above did not have a material impact on the Group's consolidated financial statements, and, therefore, pro forma disclosures have not been presented.

In May 2021, the Group acquired 100% equity interest of a private company, which primarily provides kids STEAM courses to its users, with cash consideration of RMB6,050. Total consideration was paid by the Group in June 2021. The Group obtained control and began to consolidate its financial statements from June 2021. The goodwill was allocated to learning services segment. Consideration for this transaction was allocated on the acquisition date based on the fair value of the assets acquired and the liabilities assumed as follows:

	<u>As of the acquisition date</u> RMB
Cash consideration	6,050
Total	6,050
Cash and cash equivalents	354
Other tangible assets	470
Liabilities assumed	(11,869)
Goodwill	17,095
Total	6,050

The acquisition above did not have a material impact on the Group's consolidated financial statements, and, therefore, pro forma disclosures have not been presented.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

5. Business Combinations (Continued)

In 2020, the Group acquired 16% equity interest with liquidation preference of a private company (the “Investee”), which primarily provides offline after-school tutoring services, with cash consideration of RMB30.0 million. The investment was accounted for using measurement alternative. In 2021, the Group acquired additional equity interest with consideration of RMB22.0 million from previous shareholders, and subscribed newly issued shares of the Investee with consideration of RMB100.0 million. As a result of these transactions, the Group acquired 55% equity interest of the Investee and obtained control accordingly. The Group began to consolidate its financial statements following the completion of the transaction. The goodwill was allocated to learning services segment.

Consideration for this transaction was allocated on the acquisition date based on the fair value of the assets acquired and the liabilities assumed as follows:

	As of the acquisition date RMB	Amortization Period
Cash consideration	122,000	
Previously held equity interest	27,544	
Redeemable noncontrolling interests	106,368	
Total	255,912	
Cash and cash equivalents	165,783	
Other tangible assets	18,040	
Identifiable intangible assets:		
Trademark	46,000	10 years
Licenses	6,500	10 years
Copyright	4,000	5 years
Students base	3,250	3 years
Deferred tax liabilities	(8,963)	
Liabilities assumed	(64,609)	
Goodwill	85,911	
Total	255,912	

The Group’s previously held equity interests in the acquired entity was remeasured to fair value at the acquisition date. For the year ended December 31, 2021, the Group recognized a net re-measurement loss of RMB2,456 (US\$385) in others, net in the consolidated statement of operations and comprehensive loss.

The Group had unpaid consideration of RMB 5,129 for the years ended December 31, 2021 and 2022, respectively.

Goodwill, which is non-deductible for tax purposes, is primarily attributable to the synergies expected to be achieved from the acquisitions.

Amortization expenses on intangible assets were RMB 2,972 for the year ended December 31, 2021. The identified intangible assets were fully impaired and impairment losses were RMB56,778 for the year ended December 31, 2021.

The acquisition above did not have a material impact on the Group’s consolidated financial statements, and, therefore, pro forma disclosures have not been presented.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

5. Business Combinations (Continued)

The following sets forth the changes in the Group's goodwill by segment:

	Learning services RMB
Balance as of December 31, 2019	—
Acquisition	6,938
Balance as of December 31, 2020	6,938
Acquisition	103,006
Balance as of December 31, 2021	109,944
Balance as of December 31, 2022	109,944

No impairment charge of goodwill was recognized for the years ended December 31, 2020, 2021 and 2022, respectively.

6. Accounts Receivable, Net

The following is a summary of accounts receivable as of December 31, 2021 and 2022:

	As of December 31,	
	2021	2022
	RMB	RMB
Accounts receivable, net:		
Accounts receivable	258,156	419,779
Allowance for expected credit losses:		
Balance at the beginning of the year	(14,329)	(9,817)
Additional provision charged to expenses	667	(6,675)
Write-off	3,845	1,852
Balance at the end of the year	(9,817)	(14,640)
	248,339	405,139

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

7. Prepayment and Other Current Assets

The following is a summary of prepayment and other current assets as of December 31, 2021 and 2022:

	As of December 31,	
	2021	2022
	RMB	RMB
Deferred expenses for learning services	43,202	45,683
Prepayment for promotion fees	42,696	39,955
Prepayment for value-added taxes	38,315	31,765
Loans to third parties	—	26,424
Prepayment for content fees	9,543	8,785
Prepayment for share repurchases	—	8,370
Prepaid sales commission	2,263	8,277
Prepayment for technical support fees	—	7,762
Prepayment for rental expenses	7,247	2,213
Others	39,311	28,543
Total	182,577	207,777

8. Property, Equipment and Software, Net

Property, equipment and software, net as of December 31, 2021 and 2022 are as follows:

	As of December 31,	
	2021	2022
	RMB	RMB
Servers and computers	84,425	135,740
Furniture, fixtures and office equipment	14,053	12,788
Leasehold improvements	38,120	35,674
Software and others	5,067	6,840
Total	141,665	191,042
Less: accumulated depreciation	(61,350)	(98,926)
Net book value	80,315	92,116

Depreciation expenses recognized for the years ended December 31, 2020, 2021 and 2022 were RMB 13,853, RMB21,068 and RMB42,048, respectively.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
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9. Leases

The Group has operating leases for office space, with lease terms from within one year to around ten years. Additionally, certain lease agreements with NetEase Group contain variable payments, which are determined based on actual NetEase Group's spaces occupied by the Group and are expensed as incurred and not included in the operating lease assets and liabilities. A summary related to operating leases as of December 31, 2021 and 2022 is as follows:

	As of December 31,	
	2021	2022
	RMB	RMB
Operating lease right-of-use assets, net	118,104	78,405
Operating lease liabilities - current	46,688	35,562
Operating lease liabilities - non-current	73,070	43,635
Total operating lease liabilities	119,758	79,197
Weighted average remaining lease term	3.6 years	3.0 years
Weighted average discount rate	3.99%	3.91%

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Operating lease expenses	5,924	25,449	39,675
Short-term lease expenses	2,306	3,381	1,751
Variable lease expenses	31,684	24,008	28,659
Total lease expenses	39,914	52,838	70,085
Cash paid for amounts included in the measurement of operating lease liabilities	12,431	37,756	39,327
Right-of-use assets obtained in exchange for operating lease liabilities	91,893	85,731	24,574
Lease liabilities decrease due to early termination	—	44,469	30,368

A summary of maturity of operating lease liabilities under the Group's non-cancelable operating leases as of December 31, 2022 is as follows:

	As of December 31, 2022
	RMB
2023	42,322
2024	20,006
2025	10,692
2026	8,241
2027	2,533
Thereafter	1,000
Total operating lease liabilities	84,794
Less: interest	(5,597)
Present value of operating lease liabilities	79,197

YOU DAO, INC.
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10. Taxation

(a) Sales tax

Pursuant to the provision regulation of the PRC on Value-added tax ("VAT") and its implementation rules, the Company's subsidiaries and VIEs are generally subject to VAT at a rate of 6% from revenues earned from services provided, 13% from sales of general goods or 9% from sales of electronic publications.

Since January 2020, in accordance with the Announcement on Tax Policies to Support Prevention and Control of COVID-19 issued by the Ministry of Finance and the State Taxation Administration ("STA"), and the Announcement on the Period of Implementation of Tax Policies to Support Epidemic Prevention and Control and to Ensure Supply (collectively, the "Tax Policies"), due to the COVID-19, the VAT from providing daily life services was exempted starting on January 1, 2020 and ending on March 31, 2021 (Note 15).

The Group is also subject to cultural development fee on the provision of advertising services in China. The applicable tax rate is 3% of the advertising revenue and subject to a 50% reduction which was effective from July 1, 2019. The cultural development fee on the provision of advertising services was exempted starting on January 1, 2020 until December 31, 2021 according to the Announcement on Tax and Fee Policies to Support the Film and Other Industries issued by the Ministry of Finance and STA on May 13, 2020 and Announcement of the Ministry of Finance and the State Taxation Administration on the Renewal of the Implementation of Some Tax Preferences in Response to the Epidemic (Announcement of the Ministry of Finance and the State Taxation Administration No. 7 of 2021) due to the breakout of COVID-19.

(b) Income tax

Composition of income tax

The following table presents the composition of income tax expenses for the years ended December 31, 2020, 2021 and 2022:

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Current income tax expenses	2,929	15,611	13,844
Deferred tax benefit	—	(8,963)	—
Income tax expenses	2,929	6,648	13,844

Cayman Islands

Under the current laws of the Cayman Islands, the Company is not subject to tax on income or capital gain. Additionally, upon payments of dividends by the Company in the Cayman Islands to their shareholders, no Cayman Islands withholding tax will be imposed.

Hong Kong

The subsidiaries incorporated in Hong Kong were subject to Hong Kong profits tax at a rate of 16.5% for taxable income earned in Hong Kong before April 1, 2018. Starting from the financial year commencing on April 1, 2018, the two-tiered profits tax regime took effect, under which the tax rate is 8.25% for assessable profits on the first HK\$2 million and 16.5% for any assessable profits in excess of HK\$2 million. The payments of dividends to their shareholders are not subject to withholding tax in Hong Kong.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
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10. Taxation (Continued)

(b) Income tax (Continued)

China

Under the PRC Enterprise Income Tax Law, or EIT Law, the standard enterprise income tax rate ("EIT rate") is 25%. Entities qualifying as High and New Technology Enterprises ("HNTE") qualify for a preferential tax rate of 15% subject to a requirement that they re-apply for HNTE status every three years.

Youdao Information was qualified as an HNTE in 2015 initially and extended the qualification in 2018 and 2021, and hence subject to a preferential tax rate of 15% from 2015 to 2023. Beijing Lingshi Ruifeng Education Technology Co., Ltd. was qualified as an HNTE and hence subject to a preferential tax rate of 15% from 2020 to 2022. Youdao Hangzhou was qualified as an HNTE and hence subject to a preferential tax rate of 15% from 2022 to 2024. As of December 31, 2022, the entities mentioned above were all in accumulative deficit position.

All other PRC incorporated entities of the Group were subject to a 25% income tax rate for all the periods presented.

The following table presents a reconciliation of the differences between the statutory income tax rate and the Group's effective income tax rate for the years ended December 31, 2020, 2021 and 2022:

	For the year ended December 31,		
	2020	2021	2022
Statutory income tax rate	25%	25%	25%
Permanent differences	3%	3%	7%
Tax effect of preferential tax treatment and tax difference of statutory rate in other jurisdictions	(11%)	(9%)	(8%)
Change in valuation allowance	(17%)	(21%)	(26%)
Effective income tax rate	<u>0%</u>	<u>(2%)</u>	<u>(2%)</u>

(c) Deferred tax assets

The following table presents the tax impact of significant temporary differences that give rise to the deferred tax assets as of December 31, 2021 and 2022:

	As of December 31,	
	2021	2022
	RMB	RMB
Deferred tax assets		
Net operating tax loss carry forwards	382,409	498,506
Advertising and promotion expenses in excess of deduction limit	334,697	374,925
Payroll and expense accrued	99,007	109,686
Others	3,612	15,029
Less: valuation allowance	(819,725)	(998,146)
Total deferred tax assets, net	<u>—</u>	<u>—</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
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10. Taxation (Continued)

(c) Deferred tax assets (Continued)

The following table sets forth the movement of the valuation allowances for deferred tax assets for the periods presented:

	For the year ended December 31,	
	2021 RMB	2022 RMB
Balance as of January 1	554,232	819,725
Change of valuation allowance	265,493	178,421
Balance as of December 31	819,725	998,146

The tax losses of the Group expire over different time intervals depending on local jurisdiction. Certain HNTE entity's expiration period for tax losses has been extended from five years to ten years in 2018, other entities' expiration period for tax losses maintains as five years. Tax losses of Company's subsidiary incorporated in Hong Kong can be carried forward indefinitely to offset future taxable income. As of December 31, 2022, certain entities of the Group had net operating tax loss carry forwards as follows:

	RMB
Loss expiring in 2023	139,448
Loss expiring in 2024	137,645
Loss expiring in 2025	112,456
Loss expiring in 2026	132,554
Loss expiring in 2027	216,719
Loss expiring in 2028	201,070
Loss expiring in 2029	234,168
Loss expiring in 2030	866,217
Loss expiring in 2031	662,490
Loss expiring in 2032	458,803
	3,161,570

(d) Withholding income tax

The EIT Law also imposes a withholding income tax of 10% on dividends distributed by a FIE to its immediate holding company outside of China, if such immediate holding company is considered as a non-resident enterprise without any establishment or place within China or if the received dividends have no connection with the establishment or place of such immediate holding company within China, unless such immediate holding company's jurisdiction of incorporation has a tax treaty with China that provides for a different withholding arrangement. Such withholding income tax was exempted under the previous EIT Law, which was effective before January 1, 2018. The Cayman Islands, where the Company incorporated, does not have such tax treaty with China. According to the arrangement between Mainland China and Hong Kong Special Administrative Region on the Avoidance of Double Taxation and Prevention of Fiscal Evasion in August 2006, dividends paid by a FIE in China to its immediate holding company in Hong Kong will be subject to withholding tax at a rate that may be lowered to 5% (if the foreign investor owns directly at least 25% of the shares of the FIE). STA further promulgated Circular 601 on October 27, 2009, which provides that tax treaty benefits will be denied to "conduit" or shell companies without business substance and that a beneficial ownership analysis will be used based on a "substance-over-form" principle to determine whether or not to grant the tax treaty benefits.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

10. Taxation (Continued)

(d) Withholding income tax (Continued)

To the extent that subsidiaries and VIEs of the Group have undistributed earnings, the Group will accrue appropriate expected withholding tax associated with repatriation of such undistributed earnings. As of December 31, 2021 and 2022, the Group did not record any withholding tax as the PRC entities were still in accumulated deficit position.

11. Taxes Payable

The following is a summary of taxes payable as of December 31, 2021 and 2022:

	As of December 31,	
	2021	2022
	RMB	RMB
VAT payable	30,582	14,634
Withholding individual income taxes for employees	14,724	16,680
Enterprise income taxes payable	7,656	14,036
Others	361	5,558
Total	53,323	50,908

12. Accrued Liabilities and Other Payables

The following is a summary of accrued liabilities and other payables as of December 31, 2021 and 2022:

	As of December 31,	
	2021	2022
	RMB	RMB
Accrued marketing expenses	173,944	204,064
Accrued liabilities for learning services and online marketing services	141,521	174,740
Operating lease liabilities-current portion	46,688	35,562
Accrued outside labor service fee	22,975	31,859
Accrued technical expenses	29,890	28,242
Warehousing and logistics fee	11,323	20,772
Accrued administrative expenses	26,717	20,338
Accrued professional fee	10,177	8,784
Payables for property, equipment and software	14,088	5,690
Unpaid consideration for business combination	5,129	5,129
Deferred government grant	11,503	—
Others	21,612	29,742
Total	515,567	564,922

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
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13. Ordinary Shares

The Company was incorporated in the Cayman Islands on November 27, 2014 by NetEase. Upon its incorporation, 1 ordinary share was issued at a par value of US\$1 per share. On February 3, 2015, the Company performed a share split to 10,000 shares at a par value of US\$0.0001 per share. On March 7, 2018, the Company issued 65,377,160 shares to NetEase with a total consideration of US\$ 7. This issuance to NetEase was treated as an in substance 10,000 to 65,387,160 share split. All ordinary shares and per share information are adjusted retroactively for all periods presented to reflect the share split in March 2018.

On March 28, 2018, the Company issued 26,612,840 shares to the holding vehicle of previous non-controlling shareholders in Youdao Information in exchange for their shareholding interests in Youdao Information (Note 1).

In October 2019, the Company completed the IPO on NYSE, by which, the Company sold a total of 5,600,000 ADSs, each representing one of our Class A ordinary shares, par value US\$ 0.0001 per share. In addition, the Company issued 7,352,941 Class A ordinary shares for a total consideration of US\$125.0 million in connection with concurrent private placements to certain investment funds managed by Orbis Investment Management Limited, at US\$17.00 per share. The Company received total net proceeds of approximately US\$ 213.2 million after deducting US\$7.0 million of underwriter commissions and relevant offering expenses. Immediately prior to the completion of the IPO, all the ordinary shares held by NetEase and certain key founders were converted into an equal number of the Class B ordinary shares, all the ordinary shares held by other shareholders was converted into an equal number of the Class A ordinary shares, and all of outstanding preferred shares were automatically converted into 6,814,815 Class A ordinary shares. Each Class A ordinary share is entitled to one vote per share and each Class B ordinary share is entitled to three votes per share. Each Class B ordinary share can be converted into one Class A ordinary share at any time, while Class A ordinary shares cannot be converted into Class B ordinary shares.

On February 10, 2021, the Company completed the follow-on public offering on NYSE, by which, the Company sold a total of 7,000,000 ADSs, each representing one of our Class A ordinary shares, par value US\$ 0.0001 per share. The Company received total net proceeds of approximately US\$231.6 million after deducting US\$6.4 million of underwriter commissions and relevant offering expenses.

As of December 31, 2021 and 2022, the Company had 123,267,785 and 122,735,337 ordinary shares issued and outstanding, respectively.

14. Share Repurchase Program

The Company accounts for repurchased ordinary shares under the cost method and includes such treasury stock as a component of the common shareholders' equity. Cancellation of treasury stock is recorded as a reduction of ordinary shares, additional paid-in-capital and retained earnings, as applicable. An excess of purchase price over par value is allocated to additional paid-in-capital first with any remaining excess charged entirely to retained earnings. The cost of treasury stock reissued is determined using the weighted average method and recorded as a reduction of additional paid-in-capital.

In November 2022, the Company announced that its board of directors had approved a share purchase program of up to US\$20.0 million of its Class A ordinary shares (including in the form of ADSs) during a period of up to 36 months beginning on November 23, 2022. Under the terms of this program, the Company may purchase its issued and outstanding ADSs in open-market transactions on the New York Stock Exchange. As of December 31, 2022, approximately 1.2 million ADSs had been purchased under this program for a total cost of US\$5.9 million.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

15. Others, Net

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Government grants	28,644	42,202	87,468
Foreign exchange (losses)/gains	(23,935)	(5,005)	4,051
Fair value changes of short-term investments	9,396	28,810	2,477
Impairment of long-term investments	—	(7,000)	(10,300)
Donation	(1,459)	(9,801)	(5,450)
VAT exemption due to the COVID-19 (Note 10)	51,889	(5,353)	—
Loss from lease termination	—	(2,809)	(1,168)
Remeasured loss from previously held interest (Note 5)	—	(2,456)	—
Others	(3,483)	(1,915)	4,367
Total	61,052	36,673	81,445

Government grants mainly refers to the input VAT super-credit. Pursuant to the China's VAT reform, from April 1, 2019 to December 31, 2022, general tax payers engaged in providing production and daily life services, are allowed to claim an additional 10% and 15% super-credit on their input VAT (with the 15% rate applicable from October 1, 2019).

16. Share-based Compensation

The table below sets forth the allocation of share-based compensation expenses:

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Cost of revenues	4,641	7,862	5,984
Sales and marketing expenses	4,821	10,521	12,669
Research and development expenses	19,738	33,775	30,578
General and administrative expenses	7,225	20,043	21,478
Total	36,425	72,201	70,709

NetEase Plan

(a) Description of restricted share units plan

In November 2009, NetEase adopted a restricted share units plan for NetEase's employees, directors and consultants (the "2009 RSU Plan"). NetEase has reserved 323,694,050 ordinary shares for issuance under the plan. The 2009 RSU Plan was adopted by a resolution of the board of directors on November 17, 2009 and became effective for a term of ten years unless sooner terminated.

In October 2019, NetEase adopted a 2019 restricted share unit plan (the "2019 Plan") for its employees, directors and others. The 2019 Plan has a ten-year term and a maximum number of 322,458,300 ordinary shares available for issuance pursuant to all awards under the plan.

YOU DAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

16. Share-based Compensation (Continued)

NetEase Plan (Continued)

(b) Share-based compensation expenses

NetEase recognizes share-based compensation expenses in its consolidated statements of operations and comprehensive loss based on awards ultimately expected to vest, after considering estimated forfeitures. Forfeitures are estimated based on the NetEase's historical experience over the last five years and revised in subsequent periods if actual forfeitures differ from those estimates.

The corresponding share-based compensation expenses were allocated to the Group based on grants to the Group's employees, amounting to RMB2,682, RMB1,043 and RMB1,499 which is treated as deemed contribution from NetEase Group and recorded in additional paid-in capital, for the years ended December 31, 2020, 2021 and 2022, respectively.

Youdao Plan

(a) Description of share incentive plan

On February 3, 2015, the Company adopted an option and restricted share unit plan for the Company's employees, directors and consultants (the "2015 Share Incentive Plan" or "2015 Plan"). The 2015 Plan was adopted in February 2015 and became effective for a term of ten years unless sooner terminated, initially 8,000,000 ordinary shares of the Company was reserved. In April 2018, the Company further reserved an additional 2,222,222 ordinary shares for the 2015 Plan, which resulted in the total number of ordinary shares reserved under the 2015 Plan to be 10,222,222.

(b) Valuation

The Group uses binomial option pricing model to determine fair value of the share-based awards. The fair value of each option granted for the years ended December 31, 2020, 2021 and 2022 is estimated on the date of grant using the following assumptions:

	For the year ended December 31,		
	2020	2021	2022
Expected volatility	48.90%-52.20%	52.40%-62.40%	74.30%-95.00%
Expected dividends yield	0%	0%	0%
Risk-free interest rate	0.30%-1.69%	0.58%-0.87%	1.74%-2.70%
Expected term (in years)	6	6	6
Fair value of underlying ordinary share (US\$)	16.00-42.31	9.44-35.99	4.25-13.02

The expected volatility at the grant date and each option valuation date was estimated based on the annualized standard deviation of the daily return embedded in historical share prices of comparable peer companies with a time horizon close to the expected expiry of the term of the options. The Company has not declared or paid any cash dividends on its capital stock, and the Company does not anticipate any dividend payments in the foreseeable future. Expected term is the contract life of the options. The Company estimated the risk-free interest rate based on the yield to maturity of U.S. treasury bonds denominated in USD at the option valuation date.

YOU DAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

16. Share-based Compensation (Continued)

Youdao Plan (Continued)

(b) Valuation (Continued)

The following table presents a summary of the Company's options activities for the years ended December 31, 2020, 2021 and 2022:

	Number of options (in thousands)	Weighted average exercise price per share US\$	Weighted average remaining contractual life Years	Aggregate intrinsic value US\$
Outstanding as of January 1, 2020	8,329	2.43	3.06	97,000
Granted	888	4.00		
Exercised	(2,962)	1.84		
Forfeited	(353)	3.14		
Outstanding as of December 31, 2020	5,902	2.92	3.07	139,326
Granted	1,095	4.50		
Exercised	(1,538)	2.45		
Forfeited	(554)	3.75		
Outstanding as of December 31, 2021	4,905	3.33	2.94	44,871
Granted	635	4.50		
Exercised	(642)	2.40		
Forfeited	(337)	3.90		
Outstanding as of December 31, 2022	4,561	3.58	2.74	8,188
Vested and exercisable as of December 31, 2021	1,841	2.66	1.71	18,085
Vested and exercisable as of December 31, 2022	2,234	3.09	1.86	5,115

The weighted average grant date fair value of share options granted during the years ended December 31, 2020, 2021 and 2022 were US\$23.37, US\$23.30 and US\$8.53, respectively. The total fair value of options vested during the years ended December 31, 2020, 2021 and 2022 were RMB11,087, RMB34,618 and RMB58,648 (US\$8,503), respectively.

As of December 31, 2022, the unrecognized compensation expenses related to the options granted under the 2015 Plan was estimated to US\$11,015 (RMB75,973) and is expected to be recognized through the remaining vesting period of each grant. As of December 31, 2022, the weighted average remaining vesting period was 2.29 years.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

17. Net Loss per Share

The following table sets forth the computation of basic and diluted net loss per share for the years ended December 31, 2020, 2021 and 2022:

	For the year ended December 31,		
	2020 RMB	2021 RMB	2022 RMB
Numerator:			
Net loss from continuing operations attributable to ordinary shareholders of the Company	(798,462)	(895,388)	(720,927)
Net loss from discontinued operations attributable to ordinary shareholders of the Company	(954,327)	(100,267)	(6,105)
Net loss attributable to ordinary shareholders of the Company	(1,752,789)	(995,655)	(727,032)
Denominator:			
Weighted average number of ordinary shares/ADSs outstanding, basic	112,864,452	121,650,907	123,597,604
Weighted average number of ordinary shares/ADSs outstanding, diluted	112,864,452	121,650,907	123,597,604
Net loss per share/ADS from continuing operations attributable to ordinary shareholders of the Company, basic	(7.07)	(7.36)	(5.83)
Net loss per share from discontinued operations attributable to ordinary shareholders of the Company, basic	(8.46)	(0.82)	(0.05)
Net loss per share/ADS, basic	(15.53)	(8.18)	(5.88)
Net loss per share/ADS from continuing operations attributable to ordinary shareholders of the Company, diluted	(7.07)	(7.36)	(5.83)
Net loss per share from discontinued operations attributable to ordinary shareholders of the Company, diluted	(8.46)	(0.82)	(0.05)
Net loss per share/ADS, diluted	(15.53)	(8.18)	(5.88)

Basic and diluted loss per share are computed using the weighted average number of ordinary shares/ADS outstanding during the period.

Options for the purchase of 6,363,378, 3,685,694 and 1,443,041 ordinary shares as of December 31, 2020, 2021 and 2022, respectively, were excluded from the computation of diluted net loss per share for the years then ended because of their anti-dilutive effect.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

18. Financial Instruments

Fair value

The following table sets forth the major financial instruments, measured at fair value, by level within the fair value hierarchy as of December 31, 2021 and 2022:

	Fair value measurements	
	Total	Significant other observable inputs (Level 2)
	RMB	RMB
As of December 31, 2021		
Short-term investments	503,831	503,831
Total	503,831	503,831
As of December 31, 2022		
Short-term investments	232,152	232,152
Total	232,152	232,152

The rates of interest under the loan agreements from NetEase Group were determined based on the prevailing interest rates in the market. The Group classifies the valuation techniques that use these inputs as Level 2 of fair value measurements of short-term loans and long-term loans. For other financial assets and liabilities with carrying values that approximate fair value, if measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

19. Commitments and Contingencies

(a) Commitments

As of December 31, 2022, the Group's future minimum commitments under non-cancelable agreements were as follows:

	Less than one year RMB	One to three years RMB	More than three years RMB	Total RMB
Purchase commitments	238,545	5,500	—	244,045
Capital commitments	3,029	—	—	3,029
Total	241,574	5,500	—	247,074

Purchase commitments mainly include commitments for content, marketing activities and purchase of smart devices.

Capital commitments mainly include commitments on purchase of fixed assets and the payment on leasehold improvements.

(b) Litigation

From time to time, the Group is involved in claims and legal proceedings that arise in the ordinary course of business. Based on currently available information, management does not believe that the ultimate outcome of any unresolved matters, individually and in the aggregate, is reasonably possible to have a material adverse effect on the Group's financial position, results of operations or cash flows. However, litigation is subject to inherent uncertainties and the Group's view of these matters may change in the future. The Group records a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The Group reviews the need for any such liability on a regular basis. The Group has not recorded any material liabilities in this regard as of December 31, 2021 and 2022.

20. Related Party Transactions

During the years ended December 31, 2020, 2021 and 2022, other than disclosed elsewhere, the Group had the following material related party transactions:

Name of entity or individual	Relationships with the Group
NetEase Group	Control or under common control
Equity investee A	Significant influence

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

20. Related Party Transactions (Continued)

(a) Transactions with related parties

	For the year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
<u>Services and products provided to NetEase Group</u>			
Learning services provided to NetEase Group	5,826	7,360	18,029
Smart devices provided to NetEase Group	7,607	6,607	8,748
Online marketing services provided to NetEase Group	15,860	9,823	7,925
Other services provide to NetEase Group	—	—	9,588
Fixed assets provide to NetEase Group	—	—	936
<u>Services and products purchased from NetEase Group and other related party</u>			
Services purchased from NetEase Group	163,487	143,186	153,523
Services purchased from other related party	—	—	9,572
Fixed assets and inventories purchased from NetEase Group	2,198	2,489	1,087
<u>Loan related transactions</u>			
Interest expenses on loans from NetEase Group	31,215	31,644	45,607
Addition of long-term loans from NetEase Group	—	257,522	225,941
<u>Equity related transactions</u>			
Deemed distribution to NetEase	2,060	4,171	—
Share-based compensation under NetEase Plan	2,682	1,043	1,499
<u>Other transactions</u>			
Disposal of Youdao Cloudnote business to NetEase Group	670	—	—

Learning services provided to NetEase Group mainly refer to the translation services provided to the entities within NetEase Group.

Smart devices provided to NetEase Group mainly refer to the arrangements where entities within NetEase Group acts as the distributor to sell smart devices, the revenues of which are recognized upon the delivery to the customer.

Online marketing services provided to NetEase Group mainly refer to the performance-based advertising arrangement provided to the entities within NetEase Group to promote their own services and products.

Other services provided to NetEase Group mainly refer to the server leasing services to the entities within NetEase Group.

Service purchased from NetEase Group mainly consists of the human resource which the employees are with employment contracts with the entities within NetEase Group but provide services to the Group, office leasing and purchase of server custody service.

Services purchased from other related party mainly refer to the technical support services provided by an equity investee.

YOU DAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

20. Related Party Transactions (Continued)

(a) Transactions with related parties (Continued)

Disposal of Youdao Cloudnote business related to disposal of the business to an entity under common control. In December 2020, the Group entered into agreements with NetEase to dispose Youdao Cloudnote business to an investee established by the Company and NetEase. Pursuant to the agreements, the Company acquired 37.5% equity interests of the investee with the assets transferred of Youdao Cloudnote. The Company accounted for the investment using the equity method. Since the Youdao Cloudnote business was not material to the Group's operations, the disposal did not represent a strategic shift with a major effect on the Group's operations and financial results, and did not qualify as discontinued operation in accordance with ASC 205, *Presentation of financial statements*. Further, the business was controlled by NetEase both before and after the transaction, this transaction was accounted for as a transaction under common control. Therefore, the transferred assets were accounted for at historical carrying values.

(b) Balances with related parties

	As of December 31,	
	2021	2022
	RMB	RMB
Amounts due from NetEase Group	6,192	7,888
Prepayment to other related party	—	7,762
Amounts due to NetEase Group	83,041	68,809
Short-term loans from NetEase Group	878,000	878,000
Long-term loans from NetEase Group	255,028	522,345

Short-term loans as of December 31, 2021 and 2022 amounted to RMB 878,000, respectively, which consisted of entrustment loans from NetEase Group through banks denominated in RMB. All of these loans were repayable within one year. The effective interest rate for the outstanding loans for the years ended December 31, 2021 and 2022 ranged from approximately 3.5% to 3.9% per annum. The interest expense was RMB31,215, RMB31,028 and RMB31,226 for the years ended December 31, 2020, 2021 and 2022, respectively.

In April 2021, the Group entered into a three-year US\$300.0 million revolving loan facility agreement with NetEase, which was intended for general working capital. The facility was priced at 110 basis points over LIBOR. As of December 31, 2022, the Group had drawn down US\$75.0 million under the facility with maturity dated March 31, 2024. The interest expense was RMB 616 and RMB 14,381 for the years ended December 31, 2021 and 2022, respectively.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

21. Segment Information

As disclosed in Note 2(ee), operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker ("CODM"), or decision-making group, in deciding how to allocate resources and in assessing performance. The Group's CODM is the Chief Executive Officer. The Group's organizational structure is based on a number of factors that the CODM uses to evaluate, view and run its business operations which include, but are not limited to, customer base, homogeneity of products and technology. The Group's operating segments are based on this organizational structure and information reviewed by the Group's CODM to evaluate the operating segment results.

Effective in the fourth quarter of 2020, the Group changed its segment disclosure to separately report the results of its smart devices business. As a result, the Group now reports segments as learning services, smart devices and online marketing services. This change in segment reporting aligns with the manner in which the Group's CODM currently receives and uses financial information to allocate resources and evaluate the performance of reporting segments. This change in segment presentation does not affect consolidated balance sheets, consolidated statements of operations and comprehensive loss or consolidated statements of cash flows.

The Group currently does not allocate operating expenses or assets to its segments, as its CODM does not use such information to allocate resources or evaluate the performance of the operating segments.

The table below provides a summary of the Group's segment results for the years ended December 31, 2020, 2021 and 2022.

	For the year ended December 31,		
	2020 RMB	2021 RMB	2022 RMB
Net revenues:			
Learning services	1,513,960	2,441,421	3,084,375
Smart devices	539,962	980,424	1,256,446
Online marketing services	472,884	593,949	672,361
Total net revenues	2,526,806	4,015,794	5,013,182
Cost of revenues:			
Learning services	716,504	980,700	1,172,703
Smart devices	355,970	618,925	765,641
Online marketing services	346,895	427,331	488,422
Total cost of revenues	1,419,369	2,026,956	2,426,766
Gross margin:			
Learning services	53%	60%	62%
Smart devices	34%	37%	39%
Online marketing services	27%	28%	27%
Total gross margin	44%	50%	52%

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

22. Restricted Net Assets

Relevant PRC laws and regulations permit PRC companies to pay dividends only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Additionally, the Company's PRC subsidiaries and VIEs can only distribute dividends upon approval of the shareholders after they have met the PRC requirements for appropriation to the general reserve fund and the statutory surplus fund respectively. The general reserve fund and the statutory surplus fund require that annual appropriations of 10% of net after-tax income should be set aside prior to payment of any dividends. As a result of these and other restrictions under PRC laws and regulations, the PRC subsidiaries and VIEs are restricted in their ability to transfer a portion of their net assets to the Company either in the form of dividends, loans or advances, which restricted portion amounted to approximately RMB227.2 million as of December 31, 2022. Even though the Company currently does not require any such dividends, loans or advances from the PRC subsidiaries and VIEs for working capital and other funding purposes, the Company may in the future require additional cash resources from its PRC subsidiaries and VIEs due to changes in business conditions, to fund future acquisitions and developments, or merely declare and pay dividends to or distributions to the Company's shareholders.

23. Subsequent Events

In April 2023, the Company adopted an employee share incentive plan for the Company's employees, directors and consultants (the "2023 Plan"). The 2023 Plan became effective for a term of ten years unless sooner terminated. The maximum aggregate number of ordinary shares the Company is authorized to issue pursuant to equity awards granted under the 2023 Plan is 5,668,625 shares.

24. Parent Company Only Condensed Financial Information

The Company performed a test on the restricted net assets of its consolidated subsidiaries and VIEs in accordance with Securities and Exchange Commission Regulation S-X Rule 4-08 (e) (3), "General Notes to Financial Statements" and concluded that it was applicable for the Company to disclose the financial information for the Company only.

The subsidiaries did not pay any dividend to the Company for the years presented. Certain information and footnote disclosures generally included in financial statements prepared in accordance with U.S. GAAP have been condensed and omitted. The footnote disclosures contain supplemental information relating to the operations of the Company, as such, these statements are not the general-purpose financial statements of the reporting entity and should be read in conjunction with the notes to the consolidated financial statements of the Company.

The Company did not have significant capital and other commitments, or guarantees as of December 31, 2022.

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

24. Parent Company Only Condensed Financial Information (Continued)

Condensed Balance Sheets

	As of December 31,		
	2021	2022	2022
	RMB	RMB	US\$
			Note 2(f)
ASSETS			
Current assets:			
Cash and cash equivalents	122,765	30,418	4,410
Amounts due from Youdao Group Companies	1,275	1,907	276
Prepayment and other current assets	229	9,180	1,331
Total current assets	124,269	41,505	6,017
Non-current assets:			
Amounts due from Youdao Group Companies	2,657,497	2,930,437	424,874
Total non-current assets	2,657,497	2,930,437	424,874
Total assets	2,781,766	2,971,942	430,891
LIABILITIES AND SHAREHOLDERS' DEFICIT			
Current liabilities:			
Amounts due to NetEase Group	221	2,447	355
Accrued liabilities and other payables	2,573	4,382	635
Total current liabilities	2,794	6,829	990
Non-current liabilities:			
Investments in subsidiaries and VIEs	3,328,600	3,976,660	576,561
Long-term loans from NetEase Group	255,028	522,345	75,733
Other non-current liabilities	2,411	1,197	174
Total non-current liabilities	3,586,039	4,500,202	652,468
Total liabilities	3,588,833	4,507,031	653,458
Shareholders' deficit:			
Class A ordinary shares, US\$0.0001 par value	24	24	3
Class B ordinary shares, US\$0.0001 par value	56	56	8
Additional paid-in capital	3,913,946	3,993,026	578,934
Treasury stock	—	(42,330)	(6,137)
Accumulated deficit	(4,671,195)	(5,398,420)	(782,697)
Accumulated other comprehensive loss	(54,354)	(92,094)	(13,352)
Statutory reserves	4,456	4,649	674
Total shareholders' deficit	(807,067)	(1,535,089)	(222,567)
Total liabilities and shareholders' deficit	2,781,766	2,971,942	430,891

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

24. Parent Company Only Condensed Financial Information (Continued)

Condensed Statements of Operations and Comprehensive Loss

	For the year ended December 31,			
	2020	2021	2022	2022
	RMB	RMB	RMB	US\$
				Note 2(f)
Operating expenses:				
General and administrative expenses	(13,008)	(13,048)	(12,861)	(1,865)
Total operating expenses	(13,008)	(13,048)	(12,861)	(1,865)
Loss from operations	(13,008)	(13,048)	(12,861)	(1,865)
Interest income	22,060	5,246	135	20
Interest expense	—	(616)	(14,380)	(2,084)
Others, net	792	2,289	1,354	196
Share of loss of subsidiaries and VIEs	(1,762,633)	(989,148)	(701,280)	(101,676)
Loss before tax	(1,752,789)	(995,277)	(727,032)	(105,409)
Income tax expenses	—	(378)	—	—
Net loss	(1,752,789)	(995,655)	(727,032)	(105,409)
Net loss attributable to ordinary shareholders of the Company	(1,752,789)	(995,655)	(727,032)	(105,409)
Net loss	(1,752,789)	(995,655)	(727,032)	(105,409)
Other comprehensive loss:				
Foreign currency translation adjustment	(32,531)	(7,296)	(37,740)	(5,472)
Total other comprehensive loss	(32,531)	(7,296)	(37,740)	(5,472)
Total comprehensive loss	(1,785,320)	(1,002,951)	(764,772)	(110,881)
Comprehensive loss attributable to ordinary shareholders of the Company	(1,785,320)	(1,002,951)	(764,772)	(110,881)

YOUDAO, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
(Amounts in thousands, except for share and per share data unless otherwise stated)

24. Parent Company Only Condensed Financial Information (Continued)

Condensed Statements of Cash Flows

	For the year ended December 31,			
	2020	2021	2022	2022
	RMB	RMB	RMB	US\$
				Note 2(f)
Cash flows from operating activities:				
Net cash provided by/(used in) operating activities	14,409	(9,040)	(20,545)	(2,979)
Cash flows from investing activities:				
Placements of time deposits	(20,663)	(897,916)	—	—
Proceeds from maturities of time deposits	1,257,689	907,759	—	—
Loans to subsidiaries	(1,236,543)	(1,759,925)	(272,940)	(39,573)
Recovery of loan made to subsidiaries	—	—	14,354	2,081
Payment for long-term investment	(670)	—	—	—
Net cash used in investing activities	(187)	(1,750,082)	(258,586)	(37,492)
Cash flows from financing activities:				
Proceeds from long-term loans from NetEase Group	—	257,522	225,941	32,759
Proceeds from the issuance of follow-on offering shares, net of issuance cost (Note 13)	—	1,498,627	—	—
Payment of offering expenses	(7,909)	—	—	—
Cash paid for repurchase of Youdao's ADSs	—	—	(50,700)	(7,351)
Proceeds from issuance of ordinary shares pursuant to incentive plan	34,468	27,564	9,408	1,364
Net cash provided by financing activities	26,559	1,783,713	184,649	26,772
Effect of exchange rate changes on cash and cash equivalents	(34,691)	(19,226)	2,135	310
Net increase/(decrease) in cash and cash equivalents	6,090	5,365	(92,347)	(13,389)
Cash and cash equivalents at the beginning of the year	111,310	117,400	122,765	17,799
Cash and cash equivalents at the end of the year	117,400	122,765	30,418	4,410