

Foreign Exchange Controls

Indonesia has limited foreign exchange controls. The Indonesian Rupiah has been, and in general is, freely convertible. A number of regulations, however, have an impact on the exchange system. For example, only banks are authorized to deal in foreign exchange and execute exchange transactions related to the import and export of goods. In addition, Indonesian banks (including branches of foreign banks in Indonesia) are required to report to Bank Indonesia any fund transfers exceeding US\$10,000.

Following the disbanding of the PKLN Team in accordance with Presidential Regulation No.82 of 2020, we are no longer required to obtain the PKLN Team's approval to enter foreign commercial loans. Based on Presidential Regulation No.59 of 1972, however, we are still required to obtain an approval from the MOF prior to entering foreign commercial loans. We are also required to submit periodic reports to MOF during the term of such foreign commercial loans. Following the disbanding of the PKLN Team and pending the issuance of the relevant implementing regulations, there is uncertainty as to the MOF's approval process and how periodic reports on foreign commercial loans will be handled.

B. CAPITALIZATION AND INDEBTEDNESS

Not applicable.

C. REASON FOR THE OFFER AND USE OF PROCEEDS

Not applicable.

D. RISK FACTORS

An investment in our ADSs or shares involves risks. You should carefully consider the risks described below, as well as the other information included or incorporated by reference in this Form 20-F, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The market or trading price of our ADSs could decline due to any of these risks, and you may lose all or part of your investment. In addition, the risks discussed below also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. You should also review the section of this Form 20-F captioned "Item 5. Operating and Financial Review and Prospects—G. Safe Harbor on Forward-Looking Statements." Please note that additional risks not presently known to us, that we currently deem immaterial or that we have not anticipated may also impair our business and operations.

Risks Factor Summary

Risks Related to Our Business

Operational Risks

- A material failure in the continuing operations of our network, certain key systems, gateways to our network or the networks of other network operators could adversely affect our business, financial condition, results of operations and prospects.
- We may, in the future, be required to share our network infrastructure and capacity with our competitors.
- Our operations have been and may continue to be adversely affected by an outbreak of an infectious disease, such as the novel coronavirus (COVID-19) or other epidemics.
- Our networks face both potential physical and cyber security threats, such as theft, vandalism and acts intended to disrupt our operations, which could adversely affect our operating results.

- We face a number of risks relating to our internet-related services.
- A revenue leakage might occur due to internal weaknesses or external factors and if this risk were to materialize, it could have an adverse effect on our operating results.
- New technologies may adversely affect our ability to remain competitive.
- Expected benefits from investment in new networks and technologies may not be realized.
- Our satellites have limited operational life and they may be damaged or destroyed during in-orbit operation or suffer launch delays or failures. The loss or reduced performance of a satellite, whether caused by equipment failure or its license being revoked, may adversely affect our financial condition, results of operations and ability to provide certain services.

Risks Related to our Fixed and Cellular Telecommunications Business

- Competition from existing cellular service providers may adversely affect our cellular services business.
- We may further lose wireline telephone subscribers and revenues derived from our wireline voice services may continue to decline, which may materially adversely affect our results of operations, financial condition and prospects.
- Our data and internet services are facing increasing competition, and we may experience declining margins and/or market share from such services as such competition intensifies.
- Cellular network congestion and limited spectrum availability could limit our cellular subscriber growth and cause reductions in our cellular service quality.
- Continuing growth in and the converging nature of wireless and broadband services will require us to deploy increasing amounts of capital and require ongoing access to spectrum in order to provide attractive services to customers.
- Our continued investments in the construction of our infrastructure network may not adequately address the issues resulting from the substantial increases in data traffic or otherwise achieve the desired economic returns.
- We are subject to the control of the Government.

Financial Risks

- We are exposed to interest rate risk and risks inherent to potential changes in relevant benchmarks and indices, including changes to the administration of certain benchmarks or their future discontinuation, such as the potential phasing out of LIBOR after 2021.
- We may be unable to fund the capital expenditures needed for us to remain competitive in the telecommunications industry in Indonesia.

Legal and Compliance Risks

- If we are found liable for anti-competitive practices, we may be subjected to substantial liability which could have an adverse effect on our reputation, business, financial condition, results of operations and prospects.

Regulatory Risks

- We operate in a legal and regulatory environment that is undergoing significant change. These changes may result in increased competition, which may result in reduced margins and operating revenue, among other things. These changes may also directly reduce our margins or reduce the costs of our competitors. These adverse changes resulting from regulation may have a material adverse effect on us.
- Enactment of the Job Creation Law and its implementing regulations.
- Regulatory changes may adversely affect our business and results of operations.
- Applicable regulations on tariffs and their implementation as supervised by the MoCI may affect our revenues and earnings.
- Regulations for the configuration of BTS towers may delay the installation of new BTS towers or changes in the placement of existing towers, and may erode our leadership position by requiring us to share our towers with our competitors.
- We may experience local community opposition to some of our tower sites.
- We are subject to numerous non-tax state revenue payments and a Universal Service Obligation Contribution ("USO Contribution").
- The interpretation and application of the anticipated enactment of a new consumer data protection regulation are uncertain and may adversely affect our business, financial condition, results of operations and prospects.
- Our electronic money business activity is highly regulated.

Risks Related to Development of New Businesses and Acquisitions

- We may not succeed in our efforts to develop new businesses.
- Our acquisition activities expose us to various risks.

Risks Related to our Corporate Structure

- We are dependent on our subsidiary, Telkomsel, a cellular telecommunications services and cellular telecommunications networks company.
- Our controlling shareholder's interest may differ from those of our other shareholders.
- Our Articles of Association contain certain anti-takeover provisions that could adversely affect the rights of holders of our ordinary shares and ADSs.

Risks Related to Indonesia

Political and Social Risks

- Current political and social events in Indonesia may adversely affect our business.
- Terrorist activities in Indonesia could destabilize Indonesia, which would adversely affect our business, financial condition and results of operations, and the market price of our securities.

Macro-Economic Risks

- Negative changes in global, regional or Indonesian economic activity could adversely affect our business.
- Fluctuations in the value of the Indonesian Rupiah may materially and adversely affect us.
- Downgrades of credit ratings of the Government or Indonesian companies could adversely affect our business.

Risks relating to Natural Disasters

- Indonesia is vulnerable to natural disasters and events beyond our control, which could adversely affect our business and operating results.
- We may be affected by uncertainty in the balance of power between local governments and the central government in Indonesia.

Risks related to our ADSs

- The trading price of our ADSs may be volatile, which could result in substantial losses to you.
- If securities or industry analysts do not publish research reports about us or our business, or if they adversely change their recommendations regarding our ADSs, the market price for our ADSs and trading volume could decline.
- The different characteristics of the capital markets in Indonesia and the U.S. may negatively affect the trading prices of our ADSs and shares.
- Our financial results are reported to the OJK in conformity with IFAS, which differs in certain respects from IFRS, and we distribute dividends based on profit for the year attributable to owners of the parent company and net income per share determined in reliance on IFAS.
- As a foreign private issuer in the U.S., we are permitted to, and we have relied and will rely on exemptions from certain NYSE corporate governance standards applicable to domestic U.S. issuers. This may afford less protection to holders of our ADSs.
- As a foreign private issuer in the U.S., we are exempt from certain disclosure requirements under the Exchange Act, which may afford less protection to holders of our ADSs than they would enjoy if we were a domestic U.S. company.
- The voting rights of holders of our ADSs are limited by the terms of the Deposit Agreement.
- Holders of our ADSs may be subject to limitations on transfer of their ADSs.
- Holders of our ADSs may not receive distributions on our ordinary shares or any value for them if it is illegal or impractical to make them available to them.
- Holders of our ADSs may experience dilution of their holdings due to their inability to participate in rights offerings.
- The time required for the exchange between ADSs and shares might be longer than expected and investors might not be able to settle or effect any sale of their securities during this period.

- We are established in Indonesia and it may not be possible for investors to effect service of process or enforce judgments, on us, our Commissioners, Directors or officers within the United States, or to enforce judgments of a foreign court against us or any of these persons in Indonesia.

Risks Related to Our Business

Operational Risks

A material failure in the continuing operations of our network, certain key systems, gateways to our network or the networks of other network operators could adversely affect our business, financial condition, results of operations and prospects

We depend to a significant degree on the uninterrupted operation of our network to provide our services. For example, we depend on access to our fixed wireline network for the operation of our fixed line network and the termination and origination of cellular telephone calls to and from fixed line telephones, and a significant portion of our cellular and international long distance call traffic is routed through the PSTN. We also depend on access to an internet and broadband network and a cellular network. Our integrated network includes a copper access network, fiber optic access network, BTSs, switching equipment, optical and radio transmission equipment, an IP Core network, satellites and application servers.

In addition, we also rely on interconnection to the networks of other telecommunications operators to carry calls and data from our subscribers to the subscribers of operators both within Indonesia and overseas. We also depend on certain technologically sophisticated management information systems and other systems, such as our customer billing system, to enable us to conduct our operations. Our network, including our information systems, IT and infrastructure and the networks of other operators with whom our subscribers are interconnected, are vulnerable to damage or interruptions in operation from a variety of sources including earthquake, fire, flood, power loss, equipment failure, network software flaws, transmission cable disruption or similar events. For example, in 2018 and 2019, a number of submarine cables that we rely on to provide services across the Indonesian archipelago were damaged mostly as a result of earthquakes. In 2020, a few submarine cables were damaged due to shunt faults (i.e., existence of a current leakage path between the power conductor and seawater without a break in the power conductor) and cuts. As a result, services in east Indonesia faced slowdowns and disruptions as we had to redirect affected traffic through satellites until the submarine cables could be restored. One of our building in Pekanbaru suffered fire damage in August 2020 and certain of our infrastructures and equipment were damaged by flood in Jakarta, Sulawesi and Kalimantan in 2020, without any such damages causing material interruption to our operations.

Although we have implemented a business continuity plan and a disaster recovery plan, which we test regularly, we cannot guarantee that the implementation of such plans will be completely or partially successful should any portion of our network be severely damaged or interrupted. Any failure that results in an interruption of our operations or of the provision of any service, whether from operational disruption, natural disaster or otherwise, could adversely affect our business, financial condition, results of operations and prospects.

We may be required to share our network infrastructure and capacity with our competitors

Under the Job Creation Law and Government Regulation No. 46 of 2021 on Post, Telecommunication and Broadcasting ("GR No.46/2021"), telecommunication service providers with passive telecommunication infrastructure (e.g., ducts, towers, poles, or communication manholes, among others) has to give access to its passive telecommunication infrastructure to other telecommunication providers. GR No.46/2021 states that such use of passive telecommunication infrastructure must be based on cooperation and mutual agreement between the parties involved in a fair, reasonable and non-discriminative manner.

Further, a telecommunication service provider with active telecommunication and/or broadcasting infrastructure may give access to such active infrastructure to other telecommunication provider as agreed mutually and in furtherance of fair business competition. This may be achieved by leasing of network capacity to other telecommunication providers.

It remains to be seen how these new provisions will affect our business and our relations with other telecommunication players in Indonesia. We cannot assure you that the Government will adopt final terms which we will consider to be commercially reasonable. For example, we cannot assure you that any subsequent or implementing regulations will allow us to charge competitors who lease our network capacity fees at rates which we will consider to be commercially acceptable. If such regulations were to be implemented, it could have a material adverse effect on our revenue, financial condition, results of operations and prospects.

Our operations have been and may continue to be adversely affected by an outbreak of an infectious disease, such as the novel coronavirus (COVID-19) or other epidemics

An outbreak, or the fear of an outbreak of any severe infectious disease such as diseases caused by the novel coronavirus (COVID-19), Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), the H5N1 avian flu or the human swine flu (H1N1) or a similar communicable diseases, if uncontrolled, or restrictions or containment measures taken by the governments of affected countries, including Indonesia, could have a material adverse effect on the overall business sentiment in Indonesia and in economies where we carry out our business, on Indonesian and international consumers' confidence and purchasing behavior, and in turn, on demand for our products and services. Most recently, in January 2020, an outbreak of COVID-19 believed to have started in Wuhan, Hubei, China, spread aggressively in multiple countries, including Indonesia, other countries in Southeast Asia, Europe and North America. The World Health Organization (the "WHO") declared the outbreak of COVID-19 a "pandemic" on March 11, 2020. On April 13, 2020, the President of Indonesia issued Presidential Decree No. 12 of 2020 declaring the current COVID-19 pandemic a national disaster. Various measures have been implemented to contain the outbreak in certain regions and countries, resulting in extensive government-imposed restrictions and containment measures, including restrictions on domestic and international travel, restrictions on public gatherings, social distancing, office and school closures, and local or general "stay at home" or quarantine orders. Such measures have resulted in a period of business disruptions, including prolonged disruptions to manufacturing and global supply chains as well as restrictions on business activities and the movement of people comprising a significant portion of the world's population, and a decrease in economic activities in several countries, including Indonesia. In response to the COVID-19 outbreak or other epidemics or outbreak of infectious diseases, similar or more stringent measures could be taken that may further worsen the Indonesian economy and the global economy.

If the current COVID-19 outbreak or other epidemics or outbreaks of infectious diseases were to develop and persist, customers may delay, suspend or decrease orders for our products and services, and demand for certain of our products and services may decrease. Our distribution network and retail outlets may also experience significant disruption due to physical distancing measures and other containment measures. Our ability to provide services to our clients that require our teams to access their homes or offices may also be negatively impacted. Such disruptions did occur in the year ended December 31, 2020 but did not significantly affect our operations, business and results of operations. Regardless of enhanced hygiene and precautionary measures to safeguard the safety and health of our employees and customers, we could be subject to labor shortages or suspension of work if certain of our personnel, in Indonesia or elsewhere, were to become infected with the disease or restrictions and containment measures described above were to affect their ability to reach our offices and outlets. Our operations may also be significantly and adversely affected if government-imposed restrictions or other containment measures require us to suspend our operations, partially or entirely. Finally, the negative impact of the outbreak on the global economy may increase counterparty risks or increase difficulties in collecting fees, which may negatively impact our cashflows, delay certain of our projects, and reduce our ability to access capital or increase financing costs.

As at the date hereof, the potential economic impact on Indonesia and the global economy brought by, and the duration of, the COVID-19 pandemic is highly uncertain, subject to change and difficult to estimate or predict. There is no assurance that the outbreak of COVID-19 in Indonesia or elsewhere can be effectively controlled, or that another disease outbreak will not happen in the future. Whereas we are closely monitoring the current situation and potential developments, there is still uncertainty as to the full extent of the above-described potential delays and disruptions on our business, operations, prospects and results of operations.

Our networks face both potential physical and cyber security threats, such as theft, vandalism and acts intended to disrupt our operations, which could adversely affect our operating results

Our networks and equipment, particularly our wireline access network, face both potential physical and cyber security threats. Physical threats include theft and vandalism of our equipment and organized attacks against key infrastructure intended to disrupt operations. In addition, telecommunications companies worldwide face increasing cyber security threats as businesses become increasingly dependent on telecommunications and computer networks, and adopt cloud technologies. Cyber security threats include gaining unauthorized access to our systems or inserting computer viruses or malicious software in our systems to misappropriate consumer data and other sensitive information, corrupt our data or disrupt our operations. Unauthorized access may also be gained through traditional means such as the theft of computers, portable data devices or mobile phones and intelligence gathering on employees with access to our systems.

Although we have not experienced any material successful cyberattacks to date that have affected our operations, our network and website are frequently targeted by cyberattacks. For example, in October 2018, PT Telkom Satelit Indonesia's ("Telkomsat") corporate website was defaced. The content on the homepage was altered, which left customers unable to access the site for part of one day, before the site was restored. In 2020, we detected 49.44 million cyber threats to our servers. Almost all of those threats were non-disruptive and only 78 of them raised to the level of issues we needed to specifically address, which we did successfully and promptly. In addition, we cannot guarantee that safety procedures we have in place and our intrusion detection systems may always prove efficient against illegal access to our internal data and databases, customers', suppliers and other parties' data hosted on our systems. If we are unable to prevent such attacks or successfully detect such intrusions in a timely manner or at all, such data could be misappropriated and illegally used or disseminated. While none of these cyberattacks have caused significant losses to date, a successful cyberattack may lead us to incur substantial costs to repair damage or restore data, implement substantial organizational changes and training to prevent future similar attacks and lost revenues and litigation costs due to misused sensitive information, liabilities for information loss, breach of confidentiality of private information, and cause substantial reputational damage. Cyberattacks may also cause equipment failures, loss of information, including sensitive information or information stored in our customers' computer systems and mobile phone systems, failure or perceived failure to comply with applicable privacy, security or data protection laws, as well as disruption to our operations or our customers' operations. Furthermore, it might be difficult to calculate the economic costs caused by potential cyber security incidents and maintain sufficient insurance coverage relating to them at commercially reasonable rates and terms. Eliminating computer viruses and other security problems may also require interruptions, delays or suspension of our services, reduce our customer satisfaction and cause us to incur additional costs. Due to the evolving nature of cyber security threats, the scope and impact of any future incident cannot be precisely predicted. We take preventive and remedial measures with respect to our systems, including enhanced cooperation with the police, particularly in areas prone to criminal activity and regular updates of our information system security measures. While we believe that we have taken appropriate measures to protect our network, there is no assurance that these physical and cyber security measures will be successful. Damage to our network, equipment or data and the need to repair such damage resulting from a physical or cyberattack may materially and adversely affect our business, financial condition and operating results.

We face a number of risks relating to our internet-related services

In addition to cyber security threats, since we provide connections to the internet and host websites for customers and develop internet content and applications, we may be perceived as being associated with the content carried over our network or displayed on websites that we host. For example, in the past, due to an escalation in spam messages generated from email addresses on the Telkom network, Telkom was placed on certain DNS blacklists which blocked all email generated from Telkom addresses for almost a week until remedial measures could be put into place. This did not occur in 2020 as anti-spam tools already deployed into our systems significantly mitigated the effect of cyberattacks on our systems.

While we have made certain administrative and technical adjustments to identify and combat spam, we cannot assure you that such measures will always be effective and that we would not be placed on certain DNS blacklists again in the future. In addition, the content carried over our network or the websites that we host may contain materials or information which may be illegal, defamatory, impermissible or infringe on third party copyrights. We cannot and do not screen all of this content and may face litigation claims due to a perceived association with such content. These types of claims can be costly to defend, divert management resources and attention, and may damage our reputation.

A revenue leakage might occur due to internal weaknesses or external factors and if this risk were to materialize, it could have an adverse effect on our operating results

We may face revenue leakage or problems with collecting all the revenues to which we may be entitled, due to the possibility of inaccurate billing, delays in transaction processing, dishonest customers or other factors. Further, our services might be susceptible to piracy and unauthorized usage. Such piracy and unauthorized usage may lead to a loss of revenue for our Group which may affect our financial conditions and results of operations. For example, in recent years the use of simboxes, which are electronic boxes that use cell phone antennae or a BTS on which local operator SIM cards are installed so that international calls can be fraudulently terminated through local numbers so that the fraudster can bypass interconnection rates in the destination country, have led to a loss of revenue for our Group.

We have taken certain preventive measures to mitigate the possibility of revenue leakage by increasing control functions in all of our existing business processes, increasing cooperation and information sharing between operational units to detect potential fraud, implementing revenue assurance methods, employing adequate policies and procedures as well as implementing information systems applications to minimize revenue leakages. Nonetheless, there is no assurance that in the future there will be no significant revenue leakages or that any such leakages will not have a material adverse effect on our operating results.

New technologies may adversely affect our ability to remain competitive

The telecommunications industry is characterized by rapid and significant changes in technology. We may face increasing competition due to technologies under development or which may be developed in the future. Future development or application of new or alternative technologies, services or standards could require significant changes to our business model, the development of new products, the provision of additional services and substantial new investments by us. New products and services may be expensive to develop and may result in the introduction of additional competitors into the marketplace. We cannot accurately predict how emerging and future technological changes will affect our operations or the competitiveness of our services. Furthermore, we cannot guarantee that we will be able to effectively integrate new technologies into our existing business model.

One of the main challenges faced by the telecommunications industry in Indonesia is the increasing use of Over The Top services that has become a substitute for voice and SMS services, in line with the growing number of smartphone users. In particular, the percentage contribution from cellular phone services to our consolidated revenues has declined from 26.3% for 2018 to 14.2% for 2020. This has happened not only in Indonesia, but also in developed countries where smartphone penetration is high. In addition, we face a continuing risk of market entry by new operators and service providers (including non-telecommunications players and Over The Top players) who, by using newer or lower cost technologies, may succeed in rapidly attracting customers away from established market participants such as ourselves. This may result in a loss of market share and could have a material adverse effect on our business, financial condition and results of operations. In particular, the rapid development of new technologies, new services and products, and new business models has resulted in distinctions between local, long distance, wireless, cable and internet communication services entry barriers being lessened and has brought new competitors into the telecommunications market. For example, the increased availability of high-throughput satellite capacity in Indonesia has increased competition, and adversely affected pricing, for our satellite business.

We cannot assure you that our technologies will not become obsolete, or be subjected to competition from new technologies in the future, or that we will be able to acquire new technologies necessary to compete in changed circumstances on commercially acceptable terms. Our failure to react to rapid technological changes could adversely affect our business, financial condition, results of operations and prospects.

Expected benefits from investment in new networks and technologies may not be realized

We may pursue new growth opportunities in the communications industry in the future, including introducing services and products employing new technologies, such as next generation mobile technologies, 5G, virtualization, software-defined networking, cloud based technologies, new video and content delivery platforms and digital marketing. The implementation of these new technologies depends on a number of factors, including developing our network and the launch of new and commercially viable products and services involving these technologies. We may have to incur substantial expenditure to develop our network, services and products and to gain access to related or enabling technologies in order to successfully implement these new technologies. We may not be successful in modifying our network infrastructure in a timely and cost-effective manner to facilitate such implementation, which could adversely affect our quality of service, financial condition and results of operations.

Further, we may face the risk of unforeseen complications in the deployment of new technologies. Any newly adopted technology may not perform as expected, and we may not be able to successfully or on a timely basis to develop the new technology to effectively and economically deliver services based on such technology.

Our satellites have limited operational life and they may be damaged or destroyed during in-orbit operation or suffer launch delays or failures. The loss or reduced performance of a satellite, whether caused by equipment failure or its license being revoked, may adversely affect our financial condition, results of operations and ability to provide certain services

We operate three satellites, namely Telkom-2, Telkom-3S and the Merah Putih Satellite. These satellites have limited operational lives, and their design lives ended or will end approximately in 2020, 2032 and 2033, respectively. Following an assessment from its manufacturer, Telkom-2's operational life can be extended beyond December 2020 and we expect to operate this satellite until May 2021. A number of factors affect the operational lives of satellites, including the quality of their construction, the durability of their systems, sub-systems and component parts, on-board fuel reserves, accuracy of their launch into orbit, exposure to micrometeorite storms, or other natural events in space, collision with orbital debris, or the manner in which the satellite is monitored and operated. We use satellite transponder capacity on our satellites in connection with many aspects of our business, including direct leasing of such capacity and routing for our international long distance and cellular services.

International Telecommunication Union regulations specify that a designated satellite orbital slot has been allocated for Indonesia and the Government has the right to determine which party is licensed to use such slot. While we hold a license to use the designated satellite orbital slot, in the event any of our satellites experience technical problems or failure, the Government may determine that we have failed to optimize the existing slot under our license, which may result in the Government withdrawing our license. We cannot assure you that we will be able to maintain use of the designated satellite orbital slot in a manner deemed satisfactory by the Government.

Risks Related to our Fixed and Cellular Telecommunications Business

Competition from existing cellular service providers may adversely affect our cellular services business

The Indonesian cellular service business is highly competitive. Competition among cellular service providers in Indonesia is based on various factors, including pricing, network quality and coverage, the range of services, features offered and customer service. With the increasing popularity of smart phones in Indonesia, we believe that data network quality and coverage, including 4G/LTE coverage, will increasingly become an intense area of competition. In recent years, competitors have offered promotions such as bonus data packages in order to attract customers, which has generally made the pricing environment in Indonesia less profitable. In 2019, the intensity of downward pressure on selling prices decreased but this trend reversed in 2020. Since early 2020, the COVID-19 outbreak created uncertainty and a general economic slowdown in Indonesia that impacted consumers' purchasing power and, as a result, translated into lower consumer spending. This accelerated a shift from Telkomsel's legacy business to its data services and generally exacerbated competition among operators, which translated into increased downward pressure on selling prices. This competition is likely to continue, particularly as telecommunications companies are affected by increased competition from Over The Top providers. In 2020, a number of our competitors continued to increase their coverage by expanding outside Java.

For tariffs which are within the scope of the Job Creation Law, variations in selling prices may be limited because the Government may determine upper and lower limits based on public interest and fair business competition principles. Upper limits may be determined in areas where only one telecommunications operator operates. Lower limits may be determined based on the Government's assessment of prevailing market conditions (for instance to prevent unfair business competition). The implementing regulations of such law, however, have yet to be passed.

Our cellular services business, operated through our majority-owned subsidiary Telkomsel, competes primarily with Indosat and XL Axiata. However, we are also facing increased competition from smaller operators that provide cellular services in Indonesia, including PT Hutchison 3 Indonesia ("Hutchison"), which is part of the Hutchison Asia Telecom Group and operates under the "3" or "Tri" brand and PT Smartfren Telecom Tbk ("Smartfren Telecom"), which is part of the Sinar Mas Group.

There has been and we expect there could be further consolidation in our industry in the future. For instance, XL Axiata completed the acquisition of a majority interest in and merged with PT Axis Telekom in 2014, which resulted in XL Axiata acquiring additional frequency allocations to provide 4G/LTE services as well as acquiring the customers of PT Axis Telekom. In December 2020, CK Hutchison and Qatar's Ooredoo announced they had entered into a non-binding memorandum of understanding and initiated negotiations for combining their operations in Indonesia, subject to satisfactory completion of such negotiations and meeting certain requirements, including obtaining required regulatory approvals. Furthermore, we believe any merger or consolidation in the industry will help to promote a healthier competition between operators as well as better cost efficiencies and reduce overlapping in many areas.

Additional consolidation among cellular services providers may occur which may be driven by competitive factors as well as efforts to reduce operating costs and obtain wider spectrum allocation. In addition, the Government tends to encourage consolidation, including through the enactment of the Job Creation Law which regulates, among other things, telecommunications clusters, in an effort to promote healthier competition among fewer industry players with a better cost-efficiency profile and wider spectrum allocations.

Consolidation of competitors for cellular services may allow them to expand the geographic coverage of their integrated network infrastructure. In recent years, both Telkomsel and its competitors have acquired wider spectrum allocations as part of the Government's spectrum refarming initiative. In 2019, we entered into a refarming arrangement with Indosat which was approved by the Government. This has allowed them to improve the quality of their cellular services as well as to expand the amount of traffic that they can service through their network, which may allow them to expand their services and increase revenues. Furthermore, the Job Creation Law allows telecommunications operators to share network infrastructure and capacity on a B2B basis while applicable tariffs will remain determined by the operators and/or will remain based on the tariff formula as set out by the ICT ministry. Details relating to the implementation of such law are still unknown as at the date hereof since the implementing regulations have not been passed yet. See "— We may, in the future, be required to share our network infrastructure and capacity with our competitors." As the telecommunications operator with the most extensive network infrastructure in Indonesia, if capacity and network sharing pursuant to such regulation were not implemented on a B2B basis and such regulation were to become effective, it would allow our competitors to take advantage of our existing infrastructure without significant capital expenditure, which would have a significant impact on competition.

As a result, any of these developments may present challenges for Telkomsel in maintaining its market position and could adversely affect our results of operations, financial condition and prospects.

We may further lose wireline telephone subscribers and revenues derived from our wireline voice services may continue to decline, which may materially adversely affect our results of operations, financial condition and prospects

Revenues derived from our wireline voice services have declined during the past several years mainly due to the increasing popularity of mobile voice services and other alternative means of communication. Tariffs for mobile services have declined in recent years which has further accelerated substitution of mobile for wireline voice services. The number of our fixed wireline subscribers decreased by 2.7% in 2020 and revenues from our wireline voice services decreased by 27.2% in 2020. The percentage of revenues derived from our wireline voice services out of our total revenues was 1.6% in 2020.

Since the beginning of 2015, we have taken various steps to stabilize our revenues from wireline voice services by seeking to migrate subscribers to IndiHome, a service which bundles fixed broadband internet, fixed wireline phone and interactive TV services. However, we cannot assure you that we will be successful in mitigating the adverse impact of the substitution of mobile voice services and other alternative means of communication for wireline voice services or in reducing the rate of decline in our revenues generated from wireline voice services. Migration from wireline voice services to mobile services and other alternative means of communication may further intensify in the future, which may affect the financial performance of our wireline voice services and thus materially and adversely affect our results of operations, financial condition and prospects as a whole.

Our data and internet services are facing increasing competition, and we may experience declining margins and/or market share from such services as such competition intensifies

Our data and internet services are facing increased competition from other data and internet operators, including mobile operators. The number of mobile broadband subscribers have increased with the increasing popularity of smart phones in Indonesia, which adversely affects our market share and revenues from our fixed line data and internet services.

In addition, with the increasing popularity of smart phones in Indonesia, data and internet services have become an intense area of competition in our industry. We have been taking various measures in order to mitigate the impact of intense competition in our data and internet businesses. However, we cannot assure you that we will be successful in mitigating such adverse impact. Competition may further intensify in the future, which may affect the financial performance of our data and internet services and thus materially and adversely affect our results of operations, financial condition and prospects as a whole.

Cellular network congestion and limited spectrum availability could limit our cellular subscriber growth and cause reductions in our cellular service quality

We expect to continue to offer promotional plans to attract subscribers and increase usage of our network by our cellular subscribers, in particular during and in the aftermath of the COVID-19 outbreak. We also expect to continue to promote our data services and fixed broadband services. While we believe that we have sufficient spectrum allocation to support our current business, we may in the future need to acquire additional spectrum allocation to accommodate future growth in subscribers and traffic. As a result, we may experience increased network congestion, which may affect our network performance and damage our reputation with our subscribers. The Government occasionally conducts auctions for unused spectrum allocation. We seek to secure as much of the available spectrum as we expect is needed for our operations but, as this is a scarce resource and allocations are subject to regulatory factors which may change over time (such as auction rules) and other considerations, such as fair business conduct and fair competition, we cannot guarantee that we will always be in a position to secure spectrum allocations consistent with our expectations or strategic objectives.

Moreover, the increase in smartphone applications that rely on data services has resulted in the significant amount of data traffic and cellular network congestion. To support such additional demands on our network, we may be required to make significant capital expenditures to improve our network coverage. Such additional capital expenditures, together with the possible degradation of our cellular services, could materially and adversely affect our competitive position, results of operations, financial condition and prospects.

Continuing growth in and the converging nature of wireless and broadband services will require us to deploy increasing amounts of capital and require ongoing access to spectrum in order to provide attractive services to customers

Telecommunications services are undergoing rapid and significant technological changes and a dramatic increase in usage, in particular, the demand for faster and seamless usage of video and data across mobile and fixed devices. We continually invest in our networks in order to improve our wireless and broadband services to meet this increasing demand and remain competitive. Improvements in these services depend on many factors, including continued access to and deployment of adequate spectrum and the capital needed to expand our network to support transport of these services. We must maintain and expand our network capacity and coverage for transport of video, data and voice between cell and fixed landline sites. To this end, we have participated in spectrum auctions, at increasing financial cost, and continue to deploy technology advancements in order to further improve our network. Further, we must pay an annual right of usage fee for the license in case of our winning additional spectrum, such as the additional 30 MHz spectrum at 2.3 GHz frequency we won at an auction in October 2017.

Network service enhancements and product launches may not occur as scheduled or at the cost expected due to many factors, including delays in determining equipment and wireless handset operating standards, supplier delays, increases in network equipment and handset component costs, regulatory permitting delays for tower sites or enhancements, or labor-related delays. Deployment of new technology also may adversely affect the performance of the network for existing services. If we cannot acquire the required spectrum or deploy the services customers desire on a timely basis and at a reasonable price, then our ability to attract and retain customers, and therefore maintain and improve our operating margins, could be materially adversely affected.

Our continued investments in the construction of our infrastructure network may not adequately address the issues resulting from the substantial increases in data traffic or otherwise achieve the desired economic returns

We regularly review our network capability, advantage, and capacity availability and continue to make substantial investments in the construction of our infrastructure network, including our 4G/LTE infrastructure, to carry the increasing data traffic.

Our wireless data traffic business has experienced significant growth in recent years, which contributed to the growth of our operating revenue and provides our business with further opportunities for development. The COVID-19 outbreak had an impact on consumption habits with more people working and learning from home, which positively impacted data traffic and shifted traffic from business districts to residential areas. We expect a continued and substantial increase in data traffic not only as a result of changes in consumption habits and consumers' behavior but also as a result of our efforts to make our data services affordable at a time where purchasing power and disposable income have been negatively affected. We launched our 4G/LTE services in 2014 and the substantial increase in data traffic resulting from the growth of our wireless data traffic business, our 4G/LTE business and the proliferation of smartphones had significantly strained the existing capacity of our telecommunications network infrastructure. As a result, based on our anticipation of further significant traffic data growth, we have made and will continue to make substantial investments in the construction of our infrastructure network, including our 4G/LTE infrastructure, to carry the increasing data traffic. However, our ability to improve or expand our infrastructure network is subject to various factors, a number of which are not within our control, such as regulations and changes in regulations, changes to the competitive environment or technological developments that could adversely affect our ability to improve or expand our infrastructure network as expected or desired and achieve anticipated returns on our investments.

We are subject to the control of the Government

The Government, through the MSOE, owns 52.09% of our issued share capital. Consequently, the Government effectively controls the outcome of matters requiring the vote of our shareholders, including the composition of our boards of Directors and Commissioners, and determining the timing and amount of dividend payments. The Government has historically influenced, and is likely to continue to influence, our strategy and operations. In addition, the Government owns a Dwiwarna Share in our Company which gives the Government, represented by the MSOE, certain rights such as the right to veto with regards to the nomination, appointment and removal of our Directors and Commissioners, the issuance of new shares and any amendments to our Articles of Association. The rights of the Government attached to this Dwiwarna Share limit the ability of public shareholders to influence certain matters relating to our Company. Under our Articles of Association, the Government cannot transfer the Dwiwarna Share. The Government's rights with respect to the Dwiwarna Share will not terminate unless our articles of association are amended, which would require the approval of the Government as holder of the Dwiwarna Share. See "Relationship with the Government and Government Agencies – The Government as Shareholder."

There can be no assurance that the Government will exercise its control and influence to our benefit. For example, the Government may request us to enter into transactions which are not in our best interests. In addition, there can also be no assurance that we will ever become independent of our Government shareholder or even if we do become independent, that we will be able to exercise any such independence effectively in making decisions concerning our business and prospects, including decisions concerning compensation from the Government when we act in the public interest. If we agree to act in the public interest and are not adequately compensated by the Government, our business, prospects, financial condition, liquidity and result of operations may be materially and adversely affected, which would limit our ability to compete effectively and expand our business.

Financial Risks

We are exposed to interest rate risk and risks inherent to potential changes in relevant benchmarks and indices, including changes to the administration of certain benchmarks or their future discontinuation, such as the potential phasing out of LIBOR after 2021

Our debt includes bank borrowings used to finance our operations. In order to reduce our exposure to interest rate fluctuations, we aim to balance the share of our fixed rate loans and floating rate loans in our bank borrowings. We try to achieve this where there are opportunities to increase the share of fixed-rate loans in our overall loan portfolio in light of prevailing interest rates available in the market at any given time and based on market and our expectations as to future floating and fixed interest rates. As of December 31, 2020, approximately 58.7% (based on the aggregate then outstanding principal) of our total bank borrowings were floating-rate loans.

Changes in the macro-economic environment worldwide due to on-going trade disputes between the United States and China and the COVID-19 outbreak also had an impact on Southeast Asia and Indonesia. In an effort to support the Indonesian Rupiah and the Indonesian economy, Bank Indonesia decreased its benchmark interest rate five times in 2020 to 3.75%.

Moreover, reference rates and indices, including interest rate benchmarks (such as the London Interbank Offered Rate ("LIBOR"), the Euro Interbank Offered Rate ("EURIBOR"), or the Jakarta Interbank Offered Rate ("JIBOR")), which are used to determine the amounts payable under financial instruments or the value of such financial instruments ("Benchmarks"), have, in recent years, been the subject of political and regulatory scrutiny as to how they are created and operated. This has resulted, particularly in the United Kingdom, in regulatory reform and changes to existing Benchmarks, with further changes anticipated. This could increase the costs and risks of complying with any such regulations or requirements.

For example, LIBOR has been questioned as a result of the absence of relevant active underlying markets and possible disincentives for market participants to continue contributing to such benchmarks. On July 27, 2017, the United Kingdom Financial Conduct Authority, which regulates LIBOR, announced that it does not intend to continue to persuade, or use its powers to compel, panel banks to submit rates for the calculation of the LIBOR benchmark to the administrator of LIBOR after 2021 (the "FCA Announcement"). The FCA Announcement indicated that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. Subsequent speeches by FCA officials have emphasized that market participants should not rely on the continued publication of LIBOR after 2021. Furthermore, on December 4, 2020, the ICE Benchmark Administration (IBA) published a consultation on its intention to cease the publication of LIBOR. Based on feedback and information received from LIBOR panel banks, and following discussions with the FCA and other official sector bodies, IBA made announcements on November 18, 2020, and November 30, 2020, that it would consult on its intention to cease certain LIBOR publications on specific dates, subject to any rights of the FCA to compel IBA to continue publication.

Following the implementation of any such changes, reforms or potential reforms, the manner of administration of LIBOR, EURIBOR or other benchmark indices such as JIBOR may change, with the result that it may perform differently than in the past or benchmarks could be eliminated entirely. Any of the above changes or any other consequential changes as a result of international or national reforms or other initiatives or investigations could have an adverse effect on the interest paid on our floating-rate loans that are linked to, reference or otherwise are dependent (in whole or in part) upon a benchmark. As of December 31, 2020, however, the aggregate outstanding amount of our floating rate loans that use LIBOR or EURIBOR as reference rates was insignificant. Nonetheless, the uncertainty as to whether LIBOR will survive in its current form or at all may lead to adverse market conditions, which may have an adverse effect on access to liquidity and debt refinancing in the future.

We may be unable to fund the capital expenditures needed for us to remain competitive in the telecommunications industry in Indonesia

The delivery of telecommunications services is capital intensive. In order to be competitive, we must continually expand, modernize and update our telecommunications infrastructure technology, which involves substantial capital investment. For the years ended December 31, 2018, 2019 and 2020, our consolidated capital expenditures totaled Rp33,620 billion, Rp36,485 billion and Rp29,279 billion (US\$2,084 million), respectively. We expect the decrease in our capital expenditure in 2020 to be temporary as such decrease did not reflect a decrease in our funding capacity, but rather the impact of practical and operational difficulties relating to the deployment of such expenditures in the context of the COVID-19 pandemic and containment measures implemented in Indonesia, as well as weaker growth in demand from IndiHome subscribers since the number of IndiHome subscribers increased by 1.0 million in 2020 compared with a 1.9 million increase in 2019. Our ability to fund capital expenditures in the future will depend on our future operating performance, which is subject to prevailing economic conditions, levels of interest rates and financial, business and other factors, many of which are beyond our control, and upon our ability to obtain additional external financing. Even if we have not experienced any difficulties in securing loan facilities and we expect our current credit profile would allow us to secure new loan facilities as necessary, we cannot assure you that additional financing will be available to us on commercially acceptable terms, or at all, in the future. In addition, we can only incur additional financing in compliance with the terms of our debt agreements. Accordingly, we cannot assure you that we will have sufficient capital resources to improve or expand our telecommunications infrastructure technology or update our other technologies to the extent necessary to remain competitive in the Indonesian telecommunications market. Our failure to do so could have a material adverse effect on our business, financial condition, results of operations and prospects.

Legal and Compliance Risks

If we are found liable for anti-competitive practices, we may be subjected to substantial liability which could have an adverse effect on our reputation, business, financial condition, results of operations and prospects

We are subject to laws and regulations relating to anti-competitive practices and anti-monopoly. Law No.5 of 1999 on Prohibition of Monopolistic Practice and Unfair Business Competition (the "Business Competition Law") prohibits agreements and activities which amount to unfair business competition and an abuse of a dominant market position. Pursuant to the Business Competition Law, the KPPU was established as Indonesia's antitrust regulator with the authority to enforce the provisions of the Business Competition Law.

In 2016, our Company, Telkomsel, and five other local operators were found to have violated the Business Competition Law for price-fixing practices related to SMS services. We and Telkomsel have paid penalties to the treasury fund in the amount of Rp18 billion and Rp25 billion, respectively.

In 2017, it was alleged that we had violated the Business Competition Law by selling our bundling program which is marketed under the retail brand "IndiHome." This product allows customers to choose one or more of our services, which consist primarily of broadband internet, fixed wireline phone and interactive TV services, at a competitive price. Although KPPU held that we did not violate the provisions in the Business Competition Law, the case highlights the risk that our business strategy could be challenged by our customers or regulators.

In November 2018, we received a summons from the KPPU regarding unspecified allegations of violations of Business Competition Law. We are in the process of gathering information for further discussion with KPPU, but we have not received any information on the exact subject matter or reason for such investigation. Our policy is to collaborate fully with KPPU and their investigation. Based on communication with KPPU, we do not expect KPPU to further investigate such allegations and, as at the date hereof, we are expecting a formal written confirmation from them that such process has been terminated.

In November 2019, we received a summons from the KPPU regarding alleged violations of the Business Competition Law relating to Telkom and Telkomsel's policy on blocking access to Netflix. Telkom has provided information in response to the investigation conducted by the KPPU and conveyed that Telkom found itself obliged to take such temporary measures to protect consumers from potential losses (e.g. despite the subscription payment, consumers are exposed to potential risk of not being able to enjoy Netflix's services if Netflix, and/or access from Indonesia to all or part of the contents they provide is banned by the Government, and also, the content Netflix provides may not be suitable for Indonesian viewers) as Telkom considers that as at the date hereof, Netflix has not yet fully complied with Indonesian regulations regarding media content, especially in relation to censorship laws. In 2020, Telkom has responded to KPPU's requests relating to its investigation into this matter. The investigation was extended to address alleged discriminatory behavior of Telkom acting as an Internet Access Provider. On April 29, 2021, KPPU concluded those proceedings when it ruled that it had not been established that either Telkom or Telkomsel had violated the Business Competition Law as previously alleged. This decision is final.

In November 2019, we also received a summons from the KPPU regarding alleged violations of the Business Competition Law relating to Telkom's Internet Protocol Transit Business in Papua. In December 2019, we provided clarifications regarding this matter as requested by the KPPU. We received a second summons from the KPPU in August 2020 that we responded to on August 7, 2020.

We cannot assure you that any new or existing governmental regulators will not, in the future, find our business practices to have an anti-competitive effect, nor can we assure you that we will not be found to have violated the relevant laws and regulations relating to anti-competition and anti-monopoly in the future. If we are found to have violated any laws and regulations relating to anti-competition and anti-monopoly, we may be subjected to substantial liability such as payments of fines, the amount of which will be subject to the discretion of the courts, which could have a material adverse effect on our reputation, business, financial condition, results of operations, and prospects.

Regulatory Risks

We operate in a legal and regulatory environment that is undergoing significant change. These changes may result in increased competition, which may result in reduced margins and operating revenue, among other things. These changes may also directly reduce our margins or reduce the costs of our competitors. These adverse changes resulting from regulation may have a material adverse effect on us

Reform of Indonesian telecommunications regulations initiated by the Government in 1999 have, to a certain extent, resulted in the industry's liberalization, including removal of barriers to entry and the promotion of competition. However, in recent years, the volume and complexity of regulatory changes has created an environment of considerable regulatory uncertainty. In addition, as the legal and regulatory environment of the Indonesian telecommunications sector continue to change, competitors, potentially with greater resources than us, may enter the Indonesian telecommunications sector and compete with us in providing telecommunications services. Furthermore, it is impossible to anticipate the regulatory policies that will be applied to new technologies.

We derive substantial revenue from interconnection services because we have the largest network in Indonesia and our competitors must pay tariffs to connect to our network. As regulated by the MoCI, although SMS interconnection rates increased from Rp23 to Rp24, as a result of ITRB No.60/BRTI/III/2014 and No.125/BRTI/IV/2014 effective April 2014, through December 31, 2015, SMS interconnection rates have been decreasing in recent years and may decrease again in the future. As a result, our revenue from interconnection services may decrease in the future if SMS interconnection rates, as regulated by the MoCI, continue to decrease.

The Government has announced its plan (and has already circulated a white paper) to gradually shift the existing interconnection services regime to be IP-based. It is expected that, in 2025, all interconnection services will be IP-based and existing interconnection services (e.g., SMS) would only be part of the value added service. As of the date hereof, amendments to MoCI Regulation No.8/2006 are being prepared to accommodate IP-based interconnection services during a transition period to allow operators able to use such technology to do so. If this governmental initiative materializes, we may need to significantly change our existing infrastructure (which our competitors rely on in carrying out conventional interconnection services and pay tariffs to us) with the new technologies. Consequently, our revenue from interconnection services may decrease, and we may need to reserve costs to procure new infrastructures.

In the future, the Government may announce or implement other regulatory changes which may adversely affect our business or our existing licenses. We cannot assure you that we will be able to compete successfully with other domestic or foreign telecommunications operators, that regulatory changes will not disproportionately reduce our competitors' costs or disproportionately reduce our revenues, or that regulatory changes, amendments or interpretations of current or future laws and regulations will not have a material adverse effect on our business and operating results.

In addition to Indonesian laws and regulations, due to the nature of our business and the services we provide, we may be subject to the laws and regulations of other jurisdictions where we operate or have customers. In particular, regulators in various jurisdictions are increasingly scrutinizing how companies collect, process, use and analyze, store, share and transmit personal data. This increased scrutiny may result in new interpretations of existing laws, thereby further impacting our business. Recent regulations, such as the General Data Protection Regulation ("GDPR"), which went into effect in the European Union ("EU") on May 25, 2018, apply to the collection, use, retention, security, processing, and transfer of personally identifiable information of residents of certain countries, such as EU member states in the case of the GDPR. The GDPR created a range of new compliance obligations, and imposes significant fines and sanctions for violations. In Indonesia, the draft data protection bill, which has adopted the contents of the GDPR, has been submitted to the House of Representatives of Indonesia (*Dewan Perwakilan Rakyat* or "DPR") in February 2020 and, as at the date hereof, is still being discussed with the Government. As a result, there is still uncertainty as to the scope of the data protection bill, including the scope and nature of exemptions from the rights of personal data owners where such data are aggregated for various purposes, such as statistical and scientific research, which could negatively impact the development of big data applications and businesses in Indonesia until such matters are settled.

Any failure, or perceived failure, by us to comply with any applicable regulatory requirements or orders, including but not limited to privacy, data protection, information security, or consumer protection related privacy laws and regulations, could result in proceedings or actions against us by governmental entities or individuals, subject us to fines, penalties, and/or judgments, or otherwise adversely affect our business, as our reputation could be negatively impacted.

Regulatory changes may adversely affect our business and results of operations

We operate in a regulated environment, and our telecommunications operations are mainly regulated by the MoCI. We are also required to comply with applicable information and technology, and consumer data protection laws and regulations in carrying out our activities. Future regulatory changes, particularly with respect to telecommunications network, telecommunications services, and data protection may generate incremental costs and delays, thereby adversely affecting our business, prospects, financial condition and results of operations.

In addition, licenses obtained by us under applicable Indonesian laws and regulations may be subject to conditions, compliance with which may be expensive, difficult or impossible. It is possible that governmental authorities could take enforcement actions against us for our failure to comply with such regulations, including the aforementioned conditions. These enforcement actions could result, among other things, in the imposition of fines or the revocation of our licenses. Compliance with such regulations could require us to make substantial capital expenditures and consequently divert funds from our planned construction projects. We could also experience delays in our business schedules as a result of such compliance efforts. Each of the above could adversely affect our business, prospects, financial condition and results of operations.

Applicable regulations on tariffs and their implementation as supervised by the Indonesian Telecommunication Regulatory Authority ("ITRA") may affect our revenues and earnings

The Government does not set a fixed amount or specified range of tariff that must be charged by telecommunications operators to their customers. However, the Government does set out formulas that telecommunications operators like us must refer to in determining the tariff for their services. MoCI Regulation No.15/PER/M.KOMINFO/4/2008 on Guidelines for Tariff Determination on Basic Telephone Service Distributed through Fixed Line ("MoCI Regulation No.15/2008") and MoCI Regulation No.09/PER/M.KOMINFO/04/2008 on Guidelines for Tariff Determination on Telecommunication Service Distributed through Mobile Cellular Network ("MoCI Regulation No.09/2008") are the applicable regulations for tariff calculation and determination relating to basic telephony and cellular services. Tariff formulation for our internet telephony services for retail customers is subject to MoCI Regulation No.8 of 2017 on Provision of Internet Telephony Service for Public ("MoCI Regulation No.8/2017"). In October 2019, MoCI issued new regulation MoCI Regulation No.13 of 2019 on Provision of Telecommunication Services ("MoCI Regulation No.13/2019") that was expected to revoke and replace MoCI Regulation No.8/2017 from April 25, 2020. MoCI Regulation No.2/2020 ("MoCI Regulation No.2/2020") amended MoCI Regulation No.13/2019 which postponed the effectiveness of MoCI Regulation No.13 of 2019 to January 31, 2021.

Neither MoCI Regulation No.8/2017 nor MoCI Regulation No.13/2019 discuss at length the formula that we must apply in determining tariff for internet telephony services as a telecommunications operator. While MoCI Regulation 13/2019 requires operators to follow the relevant MoCI guidelines, as of the date hereof, MoCI has not yet published such guidelines. MoCI Regulation No. 8/2017 requires operators to determine the internet telephony services tariff following a cost-based calculation in a manner that (i) accounts for investments in the telecommunications network, (ii) accounts for investments in infrastructure relating to internet telephony services, and (iii) ensures the tariff for internet telephony services corresponds to the applicable tariff for basic telephony services. We understand that, pending publication of the expected MoCI guidelines on the tariff for internet telephony services for retail customers in accordance with MoCI Regulation No.13/2019, operators are expected to follow the existing tariff determination process based on MoCI Regulation No.8/2017.

The formulas set out in MoCI Regulation No.15/2008 and MoCI Regulation No.09/2008 comprise numerous variables, such as cost of capital, cost of equity, cost of debt, annuity factor, traffic data and fee cost. These variables are accounted for based on, among other things, our annual financial reports and statements. Although this may seem to give us flexibility in tariff formulation, the Government is still authorized to supervise the implementation of tariff formulation through (i) the Indonesian Telecommunication Regulatory Authority ("ITRA"), for basic telephony and cellular services, and (ii) Directorate General on Post and Informatics ("DGPI"), for internet telephony services for the public. Based on its supervision, ITRA may take further action as it sees fit if any of our actions is deemed to potentially disrupt fair competition in the telecommunications market. Our promotional tariff must be carefully planned and calculated to avoid any possible "predatory pricing" claim, as the Government does not fix an amount for the lowest tariff that we may charge to our customers.

If we violate the tariff formulation as governed under these tariff regulations, we will be subject to fines (relating to MoCI Regulation No.15/2008) and examination by ITRA (relating to MoCI Regulation No.09/2008). Both regulations allow the public to participate in the supervision process by submitting complaints, e.g. regarding unfavorable fees charged by us. Meanwhile, the lack of clarity and MoCI Regulation 09/2008 with respect to non-compliance with the applicable internet telephony services tariff could lead to unpredictable action that may be taken by DGPI. We cannot assure you that there will be no actions taken by either ITRA or DGPI against us or complaints alleged by our customers against us. If these risks were to materialize, it could have an adverse effect on our business, financial condition, results of operations and prospects. As the Government dissolved ITRA in 2020 in accordance with Presidential Decree No. 112 of 2020, ITRA's former duties and functions are now assumed by the MoCI.

Regulations for the configuration of BTS towers may delay the installation of new BTS towers or changes in the placement of existing towers, and may erode our leadership position by requiring us to share our towers with our competitors

In 2008, MoCI issued MoCI Regulation No. 02/PER/M.KOMINFO/3/2008 relating to the construction, utilization and sharing of BTS towers ("MoCI Regulation No.02/2008"). In 2009, MoCI (jointly with the Minister of Home Affairs, Minister of Public Works and Head of Investment Coordinating Board) issued a joint regulation ("Joint Ministries Regulation") that supplemented MoCI Regulation No.02/2008. The purpose of this new regulation was essentially to harmonize central, local and sectoral administrative procedures and functions for granting BTS tower construction permits. MoCI Regulation No.02/2008 was revoked in 2018. As of the date hereof, the relevant regulations governing the construction of BTS towers are the Joint Ministries Regulation and the Omnibus Law.

Based on the Joint Ministries Regulation, the construction of BTS towers requires permits from the local government. This may adversely affect us in the allocation, development or expansion plan of our new BTS towers as setting up of our new towers will become more complicated. We may be prohibited from setting up new BTS towers in certain local areas thereby restricting our expansion as well. It may also adversely affect our existing BTS towers if local governments require any changes in the placement of the existing towers. For instance, in the Jakarta area, the Governor of Jakarta, by virtue of Governor Regulation No.106 of 2019 on Guideline on the Provision of Utility Network Infrastructures, requires established utility networks (such as telecommunications cable networks) to be relocated underground where Government-owned facilities that are in compliance with the Jakarta's planning masterplan can be used and leased by operators who have obtained the relevant governmental permit. Such relocation must be completed within 12 months from the date such governmental facilities are made available to operators, subject to exemptions that may be granted by the Government. As of the date hereof, the Government's underground facilities have been made available to operators in certain areas following the Government's gradual implementation of its relocation plan for utility networks in the Jakarta area. Operators who do not comply with this new requirement could be subject to sanctions (such as written warnings, forced cable cutting or pole/infrastructure retraction). A governmental initiative is only being implemented in Jakarta and Surabaya but it could be expanded to other cities by local governments, which could adversely impact our tower business. Most operators object to the high lease tariffs that are being introduced by the local governments in both Jakarta and Surabaya. As a result, the local governments are still discussing this issue with all stakeholders and evaluating the tariffs taking into account the potential impact they may have on end-consumers. Although we have been communicating with the local governments, the extent of financial exposure and the concrete implementation of this initiative remain unclear. However, we believe that the Government will likely proceed with the 12-month transition period in accordance with the regulation.

In addition, this regulation requires us to allow other telecommunications operators to lease space on and utilize our telecommunications towers in a manner that provides equal opportunity to and without any discrimination among such other telecommunications operators. This allows our competitors to expand their networks by leasing space on and utilizing our telecommunications towers without having to expend capital expenditures to build their own telecommunications towers. As a result, our competitors may be able to expand their network quickly and grow their business quickly, particularly in urban areas where new space for additional towers may be difficult to obtain. As at the date hereof, no implementing regulations have been passed in connection with the Job Creation Law regarding the telecommunications sector. As a result, it is still premature to assess risks that may materialize as a result of such law. If our wholly-owned subsidiary PT Dayamitra Telekomunikasi ("Mitratel") is subject to network sharing requirements in relation to the deployment of 5G technology, depending how such requirements (if any), are implemented, or if more than one operator obtains 5G licenses, this could reduce the potential for collocation, the availability of sites for building new BTS towers in certain areas. In addition, any requirement imposing the retrofitting of existing BTS towers to allow more than one operator to use them could create additional costs.

In order to operate our telecommunications towers, Indonesian regulations allow local governments to impose three types of fees (property tax (*Pajak Bumi dan Bangunan/PBB*), fees charged in connection with building permits (*Ijin Mendirikan Bangunan*) and the telecommunication tower control fees) fees which are determined on a cost basis subject to a formula provided by the MoF and the location of the telecommunications towers. While local governments that have begun to impose such fees have not charged material amounts as at the date hereof, we cannot assure you that such fees will not be material in the future. In addition, we cannot assure you that there will be no material difference in the amount of fees that we would be liable to pay to the relevant local governments. If these risks were to materialize, it could have an adverse effect on our operating results.

We may experience local community opposition to some of our tower sites

We have experienced, and may in the future experience, local community opposition to our existing sites or the construction of new tower sites for various reasons, including aesthetic and alleged health concerns. As a result of such opposition, we could be required by the local authorities to dismantle and relocate certain towers. Opposition to the construction of new towers could also cause delays in the availability and completion of new towers. In extreme cases, vandalism could result in damaged equipment.

If we are required to relocate a material number of our towers and cannot locate replacement sites that are acceptable to our customers, or production delays or damages to equipment occur, it could materially and adversely affect our business, prospects, results of operations and financial condition.

We are subject to numerous non-tax state revenue payments and a Universal Service Obligation Contribution ("USO Contribution")

We are subject to multiple rules and regulations authorizing the Government to collect non-tax state revenue from us. Pursuant to Government Regulation No.80 of 2015 on Applicable Types and Tariff on Non-Tax State Revenue for MoCI ("GR No.80/2015"), the Government's non-tax revenue may be derived from, among other things, tests for telecommunications devices, telecommunications operations and use of radio frequency spectrum. MoCI Regulation No.17 of 2016 on Tariff Implementation Guidelines on Non-Tax State Revenue Collected from Telecommunication Operation Rights Fee (*Biaya Hak Penyelenggaraan*, or "BHP") and USO Contribution, as amended by MoCI Regulation No.19 of 2016 ("MoCI Regulation No.19/2016") specifies that every licensed telecommunications operator must pay the Telecommunication BHP and USO Contribution. Government Regulation No.53 of 2000 on Use of Radio Frequency Spectrum and Satellite Orbit ("GR No.53/2000") and MoCI Regulation No.21 of 2014 also specifies the obligation for telecommunications operators that use a slot in the orbit for their satellite to pay a satellite orbit operation right fee.

Under Law No.36 of 1999 on Telecommunications (the "Telecommunications Law"), telecommunications operators must participate in USO Contribution. Further, according to MoCI Regulation No.10 of 2018 on Implementation of Telecommunication and Informatics USO ("MoCI Regulation No.10/2018") and GR No.46/2021, the USO Contribution will be one of the sources of funding for provision of information and communication technology infrastructure. This infrastructure provision is targeted to (i) remote areas needing access to information and telecommunications technology, (ii) groups of citizens with disabilities or economic limitations and/or (iii) other areas that still require access to information and telecommunications technology.

According to the Telecommunications Law, failure to make the non-tax state revenue payment and participate in USO Contribution will be subject to administrative sanctions; the most adverse one of which is revocation of license (which should be preceded by written warnings). While we have not previously failed to make the requisite payments, any failure by us to pay these obligations may cause our licenses to be revoked. Any revocation of licenses could have a material adverse effect on our financial condition, results of operations and liquidity.

The interpretation and application of the anticipated enactment of a new consumer data protection regulation are uncertain and may adversely affect our business, financial condition, results of operations and prospects

Law No.11 of 2008 on Electronic Information and Transactions Law as amended by Law No.19 of 2016 ("EIT Law") first came into effect on April 21, 2008. The EIT Law sets forth general principles to be further implemented through a series of Government regulations, presidential decrees and ministerial decrees, some of which have not yet been promulgated. In general, the provisions of the law are broad, and few sources of interpretive guidance are available. A number of implementing regulations to the EIT Law have been enacted, among others, Government Regulation No. 71 of 2019 on Implementation of Electronic System and Transaction, as implemented by MoCI No. 5 of 2020 on Private Electronic System Operators ("MoCI Regulation No.5/2020") ("GR No.71/2019") and MoCI Regulation No.20 of 2016 on Protection of Personal Data in an Electronic System ("MoCI Regulation No.20/2016"). These regulations are new and subject to interpretation by the regulatory authorities. Pending clear instances of the application of such regulations, it is uncertain how these regulations will affect us. Further, following the enactment of the Omnibus Law, GR No.46/2021 was passed which made recent changes to certain regulatory provisions that apply to the telecommunications sector.

GR No.71/2019 has implemented a number of significant changes, including (i) a new definition of public and private electronic system operators, (ii) new data localization requirements for public electronic system operators, (iii) further elaboration on the deletion of electronic data, (iv) the provision of electronic certificates and electronic reliability certificates, and (v) a new scope of electronic certification services. GR No.71/2019 also defines "public electronic system operators" as governmental institutions that organize, manage or operate an electronic system or any person, state apparatus or business entities appointed by any such governmental institution to organize, manage or operate an electronic system. The other electronic system operators that do fall within the foregoing category will be considered "private electronic system operators." Under MoCI Regulation No.5/2020, private electronic system operators must register their electronic systems with MoCI. The registration obligation also applies to private electronic system operators that are established under foreign laws (or are domiciled outside of Indonesia) and fulfil certain criteria. Private electronic system operators must ensure that their electronic systems do not (i) contain prohibited electronic information or documents and (ii) facilitate the dissemination of such electronic information or documents. Private electronic system operators must also take down prohibited contents within 24 hours or within four hours if they have received a take-down notice from MoCI.

Under GR No.71/2019, there is a one-year transitional period for electronic system operators to comply with their obligation to register with MoCI and a two-year transitional period for public electronic system operators to comply with the data localization requirements, which is the obligation to manage, process and store the electronic systems and data within Indonesia. As a positive development from the previous rule, GR No.71/2019 has clarified the data localization requirements (which now comprise "managing," "processing," and "storing" electronic systems and data) and removed the uncertainty about the "public services" definition under the prior applicable rule. The previous rule only stipulated that electronic system operators for "public services" were obliged to, among others, maintain data centers within Indonesia. GR No. 71/2019 removed all references to "public services" and instead uses the concept of "public electronic system operators", which clarifies which parties are required to comply with the additional requirements under GR No. 71/2019.

Not all of the implementing regulations of the EIT Law, however, have been issued and some have only been recently enacted. Accordingly, the full impact of the EIT Law, the related implementing regulations and any change in Indonesian consumer data protection regulations on our financial and operational status cannot be determined at this time. There is no assurance that we would be able to comply with the EIT Law, or that the compliance would not require us to make substantial capital expenditure or delays in our business schedules.

Our electronic money business activity is highly regulated

We are subject to multiple rules and regulations in respect of our electronic money (e-money) business activities. The practice of e-money in Indonesia is mainly governed by Bank Indonesia ("BI") Regulation No.20/6/PBI/2018 on Electronic Money ("BI Regulation No.20/2018"). Any party which wishes to carry out e-money activities in Indonesia must first obtain an e-money license granted by BI. Although we, through our subsidiary Telkomsel, have obtained an e-money license from BI, we are still subject to evaluation conducted by BI. Under BI Regulation No.20/2018, BI is authorized to take further action based on the evaluation as it sees fit, among others, to revoke a license, to accelerate the license period or to limit the license holder's activity. Subject to evaluation, if BI takes the view that there are reasons to impose any of those further actions on Telkomsel, our ability to conduct business in the usual course would be limited, which may adversely affect our business, financial condition and results of operations.

BI Circular Letter No.16/11/DKSP dated July 22, 2014 on Electronic Money Operations which was most recently amended by BI Circular Letter No.18/21/DKSP dated September 27, 2016, further implements the obligation for e-money license holders to report any change in the type or name, developments or addition of facilities to the e-money product. See "Item 4. Information on the Company – Licensing – Payment Method Using e-Money." The amendment of this circular specifies that an e-money product with a different type and/or name, developments and/or additional facilities can only be issued after obtaining approval from BI. Further, BI Regulation No.20/2018 is also implemented by BI's Board of Governor Members Regulation No.20/21/PADG/2018 dated August 20, 2018 on the Report on the Implementation of Payment Using Card and Electronic Money Activities by Smallholder Credit Banks and Non-Bank Institutions ("BI BOG Regulation No.20/2018"). BI BOG Regulation No.20/2018 regulates the reporting obligation that must be satisfied by any party practicing e-money activity.

We must comply with these regulations as we are carrying out a business which is highly regulated. If we, through Telkomsel, fail to comply with any of these obligations, we will be subject to administrative sanctions. Any sanction imposed on Telkomsel could materially and adversely affect our business, financial condition, results of operations and prospects.

Risks Related to Development of New Businesses and Acquisitions

We may not succeed in our efforts to develop new businesses

We believe that efforts to develop new businesses other than the telecommunications business such as digital life and smart platform and enterprise digital businesses, as well as international expansion are necessary to ensure continuing business growth. Risks related to new business development include competition from established players, suitability of business model, competition from disruptive new technologies or business models, the need to acquire new expertise in the new areas of operation, and risks related to online media which include intellectual property, consumer protection and confidentiality of customer data. Further, we have to focus on securing new enterprise customers. If we are unable to secure new contracts, or we are unable to renew our existing contracts with similar contract value, size or margins to existing ones, this may adversely affect our business, results of operations and financial condition.

Focusing on international expansion is one of our strategic business initiatives. In particular, we have expanded into a number of jurisdictions in telecommunications or data related areas, namely Singapore, Hong Kong, Timor Leste, Australia, Myanmar, Malaysia, Taiwan, the United States and New Zealand. Expanding our operations internationally exposes us to a number of risks associated with operating in new jurisdictions. For example, our international operations could be adversely affected by political or social instability and unrest, regulatory changes (such as an increase in taxes applicable to our operations), macroeconomic instability, limitations on or controls on the foreign exchange trade, competition from local operators, difference in consumer preference and a lack of expertise in the local markets in which we will operate. Any of these factors could limit our expected returns from our expansion and materially and adversely affect our business, results of operations and financial condition.

Our acquisition activities expose us to various risks

We have in the past pursued, and may continue to pursue, acquisitions of complementary assets and businesses. For instance, in 2019, Mitratel purchased 2,100 telecommunications towers from PT Indosat Tbk ("Indosat"), a telecommunications operator company in Indonesia. In 2020, Mitratel entered into a conditional sale and purchase agreement for the acquisition of 6,050 telecommunications towers from our majority-owned subsidiary PT Telekomunikasi Selular ("Telkomsel"), 1,911 of which were transferred to Mitratel in October 2020 with the remaining balance similarly transferred in February 2021. The success of these acquisitions will depend, in part, on our ability to realize the anticipated growth opportunities and synergies from combining the acquired businesses with our existing businesses. Based on the size and complexity of certain businesses, integrating them into our existing business could require substantial time, expense and effort from our management. The process of integrating an acquired business may also involve unforeseen costs and delays or other operational, technical and financial difficulties that may require a disproportionate amount of management attention as well as financial and other resources. If our management's attention is diverted or there are any difficulties associated with integrating these businesses, our results of operations could be adversely affected.

Even if we are able to successfully integrate these businesses, it may not be possible to realize the full benefits we expect to result from such acquisitions and strategic transactions or realize these benefits within the time frame that we expect. Moreover, such businesses generally remain subject to unforeseeable factors outside of our control. Our acquisitions and strategic transactions, including those entered into in recent periods, may turn out to be unprofitable. Any failure to successfully incorporate the acquired businesses and assets into our existing operations, to enhance operating efficiencies from consolidation savings, minimize any unforeseen operational difficulties and realize the anticipated benefits on time, or at all, could materially and adversely affect our business, financial condition, results of operations, prospects and cash flows.

Risks Related to our Corporate Structure

We are dependent on our subsidiary, Telkomsel, a cellular telecommunications services and cellular telecommunications networks company

We derived 65.3%, 65.1% and 61.5% of our revenue in 2018, 2019 and 2020, respectively, from our mobile business through our 65.0% majority-owned subsidiary, Telkomsel. The remaining 35.0% interest in Telkomsel is held by Singapore Telecom Mobile Pte. Ltd. ("Singtel"). A telecommunication company based in Singapore, Singtel may seek to influence the management, operation and performance of Telkomsel. In the event that there are differences between us and Singtel regarding the business, strategy and operations of Telkomsel, these issues may take time to resolve, or may not result in a positive outcome for our Group. These factors could adversely affect our business, financial condition and operating results.

Our controlling shareholder's interest may differ from those of our other shareholders

The Government has a controlling equity interest of 52.09% of our issued and outstanding shares of common stock and the ability to determine the outcome of all actions requiring the approval of our shareholders. The Government also holds our one Dwiwarna Share, which has special voting rights and veto rights over certain matters, including the election and removal of our Directors and Commissioners. The Government may also use its powers as a majority shareholder or under the Dwiwarna Share to cause us to issue new shares, amend our Articles of Association or bring about actions to merge or dissolve us, increase or decrease our authorized capital or reduce our issued capital, or veto any of these actions. One or more of these may result in the delisting of our securities from certain exchanges. In addition, the Government regulates the Indonesian telecommunications industry through the MoCI.

As of December 31, 2020, the Government had a 14.29% equity interest in Indosat, which competes with us in cellular services, data center services, IT solutions, system integration services and fixed IDD telecommunications services. The Government's equity interest in Indosat also includes a Dwiwarna Share which has special voting rights and veto rights over certain strategic matters under Indosat's articles of association, including decisions on dissolution, liquidation and bankruptcy, and also permits the Government to nominate one director to its board of directors and one commissioner to its board of commissioners. As a result, there may be instances where the Government's interests will conflict with ours. There is no assurance that the Government will not direct opportunities to Indosat or favor Indosat or any other telecommunications operator when exercising regulatory powers over the Indonesian telecommunications industry. If the Government were to give priority to the business of Indosat or any other telecommunications operator over ours, or to expand its equity interest in Indosat or acquire an equity interest in any other telecommunications operator, our business, financial condition, and results of operations and prospects could be materially and adversely affected.

These provisions could have the effect of delaying, preventing or deterring a change in control, and could limit the opportunity for our shareholders to receive a premium for their ADSs and/or shares, and could also materially decrease the price that some investors are willing to pay for our ADSs and/or shares.

Risks Related to Indonesia

Political and Social Risks

Current political and social events in Indonesia may adversely affect our business

Since 1998, Indonesia has experienced a process of democratic change, resulting in political and social events that have highlighted the unpredictable nature of Indonesia's changing political landscape. In 1999, Indonesia conducted its first free elections for representatives in parliament. In 2004, 2009, 2014 and most recently, in 2019, elections were held in Indonesia to elect the President, Vice-President and representatives in parliament. Indonesia also has many political parties, without any one party holding a clear majority. Due to these factors, Indonesia has, from time to time, experienced political instability, as well as general social and civil unrest. For example, since 2000, thousands of Indonesians have participated in demonstrations in Jakarta and other Indonesian cities both for and against former presidents Abdurrahman Wahid, Megawati Soekarnoputri and Susilo Bambang Yudhoyono and current President Joko Widodo as well as in response to specific issues, including fuel subsidy reductions, privatization of state assets, anti-corruption measures, decentralization and provincial autonomy, and the American-led military campaigns in Afghanistan and Iraq. Although these demonstrations were generally peaceful, some turned violent. Indonesia announced in November 2014, and implemented with effect from January 1, 2015, a fixed diesel subsidy of Rp1,000 per liter and scrapped the gasoline subsidy. Although the implementation did not result in any significant violence or political instability, the announcement and implementation also coincided with a period where crude oil prices had dropped very significantly from 2014. Currently, the Government reviews and adjusts the price for fuel on monthly basis and implements the adjusted fuel price in the following month. There can be no assurance that future increases in crude oil and fuel prices will not result in political and social instability.

President Joko Widodo won the Indonesian presidential elections which took place in 2014, and was sworn in as President on October 20, 2014. Although the 2014 elections were conducted in a peaceful manner, President Joko Widodo's governing coalition did not hold a majority of seats in parliament. Between November 2016 and February 2017, significant demonstrations took place in central Jakarta against the governor of Jakarta. These demonstrations occurred during the closely fought Jakarta gubernatorial elections which took place in February 2017 and continued through the subsequent run-off election in April 2017. Each of the foregoing events, as well as political campaigns in Indonesia generally, may be indicative of the degree of political and social division in Indonesia. The latest presidential election took place on April 17, 2019, and incumbent President Joko Widodo won the presidential polls with 55.5% of the total votes. The result triggered allegations of electoral fraud. Thousands of supporters of the opposing party Prabowo Subianto held a rally in front of the Elections Supervisory Agency's ("BAWASLU") headquarters on Jl. Thamrin in Central Jakarta on May 21, 2019, calling for the disqualification of Joko Widodo from the presidential election. The rally ended with a riot on May 22, 2019, in Central Jakarta. The opposing party also filed a lawsuit to the Constitutional Court to challenge the election result, alleging fraud. The Constitutional Court on July 27, 2019, rejected the lawsuit challenging the presidential election result. There can be no assurance that this situation or future sources of discontent will not lead to further political and social instability.

Separatist movements and clashes between religious and ethnic groups have also resulted in social and civil unrest in parts of Indonesia, such as Aceh in the past and in Papua. There have been clashes between supporters of those separatist movements and the Indonesian military, including continued activity in Papua by separatist rebels that has led to violent incidents. There have also been inter-ethnic conflicts, for example in Kalimantan, as well as inter-religious conflict such as in Maluku and Poso.

In August 2019, after the arrest of Papuan students for allegedly vandalizing the Indonesian flag, riots broke out in Papua. The riots caused a Telkom customer service building to be damaged in 2019, but this did not result in significant issues, service interruption or damages.

In October and November 2020, there were numerous protests held across Indonesia against the newly issued Job Creation Law. This law amends more than 70 existing laws and seeks to cut red tape and boost investments for creating new jobs. Protesters claimed that the Job Creation Law will generally undermine existing labor laws and weaken environmental protections.

Labor issues have also come to the fore in Indonesia. In 2003, the Government enacted the current labor law that gave employees greater protections. Occasional efforts to reduce these protections have prompted an upsurge in public protests as workers responded to policies that they deemed unfavorable. More recently, the Job Creation Law amended certain provisions of the Labor Law.

There can be no assurance that social and civil disturbances will not occur in the future and on a wider scale, or that any such disturbances will not, directly or indirectly, materially and adversely affect our business, financial condition, results of operations and prospects.

Terrorist activities in Indonesia could destabilize Indonesia, which would adversely affect our business, financial condition and results of operations, and the market price of our securities

There have been a number of terrorist incidents in Indonesia in the past two decades, including the May 2005 bombing in Central Sulawesi, the Bali bombings in October 2002 and October 2005 and the bombings at the JW Marriot and Ritz Carlton hotels in Jakarta in July 2009, which resulted in deaths and injuries. On January 14, 2016, several coordinated bombings and gun shootings occurred in Jalan Thamrin, a main thoroughfare in Jakarta, resulting in a number of deaths and injuries. On May 24, 2017, a bombing at a bus station in Jakarta resulted in multiple deaths and injuries. In May 2018, three churches were bombed in Surabaya, killing at least 28 people and injuring at least 50 others. On October 10, 2019, Wiranto, Indonesia's Coordinating Minister for Political, Legal and Security Affairs at that time was stabbed several times by a member of Jamaah Ansharut Daulah, an extremist group, during his visit in Java. More recently, a bombing occurred on March 28, 2021 in the Makassar Cathedral injuring more than 20 people.

Although the Government has successfully countered some terrorist activities in recent years and arrested several of those suspected of being involved in these incidents, terrorist incidents may continue and, if serious or widespread, might have a material adverse effect on investment and confidence in, and the performance of, the Indonesian economy and may also have a material adverse effect on our business, financial condition, results of operations and prospects and the market price of our securities.

Macro-Economic Risks

Negative changes in global, regional or Indonesian economic activity could adversely affect our business

Changes in the Indonesian, regional and global economies can affect our performance. Two significant events in the past that impacted Indonesia's economy were the Asian economic crisis of 1997 and the global economic crisis which started in 2008. The 1997 crisis was characterized in Indonesia by, among others, currency depreciation, a significant decline in real gross domestic product, high interest rates, social unrest and extraordinary political developments. Indonesia entered a recessionary phase with relatively low levels of growth between 1999 and 2002. The rate of growth has stabilized at relatively higher levels in subsequent years, though there has been a moderate slowdown in growth from 2012 to 2016 with slight development over the following years, except in 2020, principally due to the negative impact of the COVID-19 pandemic and containment measures implemented in response to the pandemic. In addition, the Government continues to have a modest fiscal deficit and a high level of sovereign debt, its foreign currency reserves are modest, the Indonesian Rupiah continues to be volatile and has poor liquidity, and the banking sector is weak and suffers from high levels of non-performing loans. Accordingly, there is no assurance that the current Indonesian economic situation would not deteriorate, which could have an adverse effect on our business, financial condition, results of operations and prospects.

While the global economic crisis that arose from the subprime mortgage crisis in the United States did not affect Indonesia's economy as severely as in 1997, it still put Indonesia's economy under pressure. The global financial markets have also experienced volatility as a result of expectations relating to monetary and interest rate policies of the United States, concerns over the debt crisis in the Eurozone, Brexit, the United States and China trade disputes, concerns over China's economic health and economic protectionism, and most recently, the ongoing outbreak of the novel coronavirus (COVID-19). Uncertainty over the outcome of the Eurozone governments' financial support programs and worries about sovereign finances generally are ongoing. The economic and social impact of the COVID-19 spread, which as at the date hereof continues to disrupt the Indonesian economy, further escalation of trade and geopolitical tensions, uncertainties around the conditions of the future trade relationship between the United Kingdom and the EU after the UK ceased to be a member of the EU on January 30, 2020, and persistently weak economic data pointing to a protracted slowdown in global growth are among the possible triggers that could result in a major deterioration in financial market sentiment.

Trade tensions between the U.S. and major trading partners, most notably China, continue to escalate following the introduction of a series of tariff measures in both countries. Although China is the primary target of U.S. trade measures, value chain linkages mean that other emerging markets, primarily in Asia, may also be impacted. China's policy response to these trade measures also presents a degree of uncertainty. There is some evidence of China's monetary policy easing and the potential for greater fiscal spending, which could result in imbalances in the Chinese economy. This could undermine efforts to address already high debt levels and increase medium-term risks.

In Europe, the UK Government and the EU Commission announced an agreement on a EU-UK Trade and Cooperation Agreement ("TCA"). While this agreement covers a number of topics, including trade in goods and in services, digital trade, intellectual property, public procurement, aviation and road transport, energy, fisheries, social security coordination, law enforcement and judicial cooperation in criminal matters, thematic cooperation and participation in certain EU programs, there are still many unanswered questions. For instance, the TCA does not cover the specifics of the UK-EU agreement regarding financial services. In addition, the TCA is being applied on temporary basis pending the ratification of its final terms in the EU. Such uncertainties, uncertainty as to the magnitude of the expected negative impact of Brexit on the economic outlook of the UK and the Eurozone, and other expected or unexpected effects of Brexit, such as (i) the possible exit of Scotland, Wales or Northern Ireland from the UK, (ii) the possibility that other European Union member States could hold similar referendums to the one held in the UK and/or call into question their membership of the European Union, (iii) the possibility that one or more countries that adopted the Euro as their national currency might decide, in the long term, to adopt an alternative currency, or (iv) prolonged periods of uncertainty connected to these eventualities may have a negative economic impact and increase volatility in international markets. These could include greater volatility of foreign exchange and financial markets in general due to the increased uncertainty. Market and economic disruptions have affected, and may continue to affect, consumer confidence levels and spending, personal bankruptcy rates, levels of incurrence and default on consumer debt, among other factors. There can be no assurance that the market disruptions in Europe, including the increased cost of funding for certain governments and financial institutions, will not spread, nor can there be any assurance that future financial support packages will be made available or, even if provided, will be sufficient to stabilise the affected countries and markets in Europe or elsewhere.

The current COVID-19 pandemic and preventative or protective actions that governmental authorities around the world have taken to counter the effects of the pandemic, including social distancing, office and school closures, travel restrictions and the imposition of quarantines, have resulted in periods of business disruption, including prolonged disruptions to manufacturing and global supply chains as well as restrictions on business activities and the movement of people comprising a significant portion of the world's population, and a global decrease in economic activity, including in Indonesia. Such measures, and rapid increases of severe cases and deaths where such measures fail or are lifted prematurely, may cause unprecedented economic disruption in Indonesia and elsewhere. As at the date hereof, there is substantial medical uncertainty regarding COVID-19 and no government-certified treatment or vaccine available. As a result, the COVID-19 pandemic has led to uncertainty in the global economy and significant volatility in global financial markets, which may have a negative impact on global economic conditions and lead to a prolonged global economic crisis or recession. The local and global economic disruption from the COVID-19 outbreak has negatively affected individuals and Indonesian companies of all sizes, from SMEs to large corporates (a number of which are our consumers and customers) which have experienced reductions in income, sales and revenue. In 2020, Indonesia's GDP suffered a contraction by 2.07% (computed at constant market prices, based on preliminary results available as at February 2021), according to the Indonesian Central Bureau of Statistics. The consequential decrease in disposable income or available cash, together with a broad negative business sentiment could lead to weaker demand for certain of our products and services in the future. For the financial year ended December 31, 2020, there was no significant negative impact on our sales revenue.

If the current global uncertainties become protracted, we can provide no assurance that they will not have a material and adverse effect on Indonesia's economic growth and consequently on our business.

Adverse economic conditions could result in less business activity, less disposable income available for consumers to spend and reduced consumer purchasing power, which may reduce demand for communication services, including our services, which in turn would have an adverse effect on our business, financial condition, results of operations and prospects. There is no assurance that there will not be a recurrence of economic instability in future, or that, should it occur, it will not have an impact on the performance of our business.

Fluctuations in the value of the Indonesian Rupiah may materially and adversely affect us

Our functional currency is the Indonesian Rupiah. One of the most important impacts the Asian economic crisis had on Indonesia was the depreciation and volatility in the value of the Indonesian Rupiah as measured against other currencies, such as the U.S. Dollar. The Indonesian Rupiah continues to experience significant volatility.

In particular, in 2020 the Rupiah has weakened against the U.S. Dollar from Rp13,612 = US\$1.00 on January 27, 2020 to Rp16,741 = US\$1.00 on April 2, 2020 before appreciating again up to Rp14,105 = US\$1.00 on December 31, 2020. (based on the middle exchange rate announced by Bank Indonesia), due, among other factors, to the impact of the COVID-19 outbreak on the Indonesian economy.

In addition, while the Indonesian Rupiah has generally been freely convertible and transferable, from time to time, Bank Indonesia has intervened in the currency exchange markets in furtherance of its policies, either by selling Indonesian Rupiah or by using its foreign currency reserves to purchase Indonesian Rupiah. We can give no assurance that the current floating exchange rate policy of Bank Indonesia will not be modified or that the Government will take additional action to stabilize, maintain or increase the Indonesian Rupiah's value, or that any of these actions, if taken, will be successful. Modification of the current floating exchange rate policy could result in significantly higher domestic interest rates, liquidity shortages, capital or exchange controls, or the withholding of additional financial assistance by multinational lenders. This could result in a reduction of economic activity, an economic recession, loan defaults or declining subscriber usage of our services, and as a result, we may also face difficulties in funding our capital expenditures and in implementing our business strategy. Any of the foregoing consequences could materially and adversely affect our business, financial condition, results of operations and prospects.

Downgrades of credit ratings of the Government or Indonesian companies could adversely affect our business

As of the date of this annual report on Form 20-F, Indonesia's sovereign foreign currency long-term debt was rated "Baa2" with stable outlook by Moody's, "BBB" with negative outlook by Standard & Poor's and "BBB" with stable outlook by Fitch. Indonesia's short-term foreign currency debt is rated "A-2" by Standard & Poor's and "F2" by Fitch.

These ratings reflect an assessment of the Government's overall financial capacity to pay its obligations and its ability or willingness to meet its financial commitments as they become due. We can give no assurance that Moody's, Standard & Poor's, Fitch or any other statistical rating organization will not change or downgrade the credit ratings of Indonesia or Indonesian companies. In particular, the credit ratings of Indonesia or Indonesian companies, have been and may be further downgraded due to the effects of the current COVID-19 pandemic. On April 17, 2020, Standard & Poor's affirmed Indonesia's foreign currency long-term debt rating of "BBB" but revised the outlook from stable to negative. Considering the rapidly changing implications of the spread of COVID-19, it is difficult to assess the full nature and extent of the impact that the outbreak will have on such credit ratings. Any such downgrade could have an adverse impact on liquidity in the Indonesian financial markets, the ability of the Government and Indonesian companies, including us, to raise additional financing, and the interest rates and other commercial terms at which such additional financing is available. Interest rates on our floating rate Rupiah-denominated debt would also likely increase. Such events could materially and adversely affect our business, financial condition, results of operations, prospects and/or the market price of our securities.

Risks relating to Natural Disasters

Indonesia is vulnerable to natural disasters and events beyond our control, which could adversely affect our business and operating results

Many parts of Indonesia, including areas where we operate, are prone to natural disasters such as floods, lightning strikes, typhoons, earthquakes, tsunamis, volcanic eruptions, fires, droughts, power outages and other events beyond our control. The Indonesian archipelago is one of the most volcanically active regions in the world as it is located in the convergence zone of three major lithospheric plates. It is subject to significant seismic activity that can lead to destructive earthquakes, tsunamis or tidal waves. Flash floods and more widespread flooding also occur regularly during the rainy season from November to April. Cities, especially Jakarta, are frequently subject to severe localized flooding which can result in major disruption and, occasionally, fatalities. Landslides regularly occur in rural areas during the wet season. From time to time, natural disasters have killed, affected or displaced large numbers of people and damaged our equipment. These events in the past have disrupted, and may in the future, disrupt our business activities, cause damage to equipment, and adversely affect our financial performance and profit.

For example, on September 2, 2009, an earthquake in West Java caused damage to our assets. On September 30, 2009, an earthquake in West Sumatra disrupted the provision of telecommunications services in several locations and caused severe damage to our assets. In June 2016, underwater volcanic activity caused disturbances to submarine fiber optic cable, causing disruption in services and loss of revenue. On August 5, 2018 a large earthquake hit Lombok and on September 28, 2018, a large earthquake triggered a tsunami which impacted Central Sulawesi, both of which caused operational disruptions and damage to our assets. In January 2020, landslides and floods triggered by torrential downpours in and around Jakarta, Bekasi and Bogor resulted in approximately 50 deaths and 400,000 displaced. Floodwater reached up to six meters in certain areas, making it the worst rainfall in over a decade. The extreme weather also submerged at least 169 neighborhoods. The landslides and floods caused damage to our civil mechanical and electrical equipment, production equipment, and buildings. This resulted in the congestion of data traffic when transferring data to our backup network and therefore, several hours of service disruption at various automatic telephone center (*Sentral Telepon Otomat* or "STO"). The estimated loss from the damages caused by the landslides and floods is Rp36.2 billion, out of which we had to bear approximately Rp2.0 billion after taking into account reimbursements obtained from insurance companies.

Given the geography of Indonesia, we are highly reliant on the use of submarine cables to provide services across the Indonesian archipelago. These submarine cables may be damaged by volcanic activity or friction with the ocean floor caused by earthquake tremors or otherwise, which may disrupt our ability to provide services to customers.

Although we have implemented a business continuity plan and a disaster recovery plan, which we test regularly, and we have insured certain of our assets to protect from any losses attributable to natural disasters or other phenomena beyond our control, there is no assurance that the insurance coverage will be sufficient to cover the potential losses, that the premium payable for these insurance policies upon renewal will not increase substantially in the future, or that natural disasters would not significantly disrupt our operations.

We cannot assure you that future natural disasters will not have a significant impact on us, or Indonesia or its economy. A significant earthquake, other geological disturbance or weather-related natural disaster in any of Indonesia's more populated cities and financial centers could severely disrupt the Indonesian economy and undermine investor confidence, thereby materially and adversely affecting our business, financial condition, results of operations and prospects.

We may be affected by uncertainty in the delineation of the respective prerogatives and responsibilities of, and the balance of power between local governments and the central government in Indonesia

Since 1999 regarding, various laws and regulations regarding fiscal decentralization, devolution of power to local governments and regional autonomy, among others, were implemented, amended, revoked or replaced. As at the date hereof, there is uncertainty in respect of the respective prerogatives and responsibilities, and the balance of power between the local and the central governments regarding several subject matters. Those include procedures for renewing licenses and approvals, and monitoring compliance with environmental regulations. In addition, local authorities have sought to levy additional taxes or obtain new contributions, from time to time. There can be no assurance that such uncertainty will dissipate or that our business, financial condition, results of operations and prospects will not be adversely affected by dual compliance obligations and further uncertainty as to legality to levy new taxes by certain authorities or the ability of such authorities to promulgate other regulations affecting our business.

Risks Related to our ADSs

The trading price of our ADSs may be volatile, which could result in substantial losses to you

The trading price of our ADSs may fluctuate widely due to factors beyond our control. As a result of this volatility, investors may not be able to sell their ADSs at or above the price paid for the ADSs or ordinary shares, respectively. In addition to the factors discussed in this "Risk factors" section and elsewhere in this annual report on Form 20-F, these factors include:

- variations in our revenue, earnings, cash flow and operating data;

- regulatory or legal developments in Indonesia, jurisdictions where we carry out our operations or in the United States;
- announcements of new investments, acquisitions or strategic partnerships by us or our competitors;
- general economic, political, and market conditions and overall fluctuations in the financial markets in Indonesia, the United States, and other countries where we carry out our operations, including the global and regional impacts of the COVID-19 pandemic;
- sales volumes of our ADSs or ordinary shares, or sales of our ADSs or shares by our senior management, directors or our large shareholders, or the anticipation that such sales may occur in the future;
- stock market price and volume fluctuations of comparable companies and, in particular, companies that operate in the telecommunications industry or with most of their operations in Indonesia;
- investors' general perception of us and our business;
- announcements of new products, services and expansions by us or our competitors;
- changes in financial estimates or recommendations by securities analysts;
- detrimental adverse publicity about us, our services or our industry;
- additions or departures of key personnel; and
- potential litigation or regulatory investigations.

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

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

The trading market for our ADSs will be influenced by research reports that industry or securities analysts publish about us or our business. If one or more analysts who cover us downgrade our ADSs or ordinary shares, the market price for our 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 our ADSs to decline.

The different characteristics of the capital markets in Indonesia and the U.S. may negatively affect the trading prices of our ADSs and shares

As a dual-listed company, we are subject to Indonesian and NYSE listing and regulatory requirements concurrently. The IDX and the NYSE have different trading hours, trading characteristics (including trading volume and liquidity), trading and listing rules, and investor bases (including different levels of retail and institutional participation). As a result of these differences, the trading prices of our ADSs and our shares may not be the same, even allowing for currency differences. Fluctuations in the price of our ADSs due to circumstances peculiar to the U.S. capital markets could materially and adversely affect the price of the shares, or *vice versa*. Certain events having significant negative impact specifically on the U.S. capital markets may result in a decline in the trading price of our shares notwithstanding that such event may not impact the trading prices of securities listed on the IDX generally or to the same extent, or *vice versa*.

Our financial results are reported to the OJK in conformity with IFAS, which differs in certain respects from IFRS, and we distribute dividends based on profit for the year attributable to owners of the parent company and net income per share determined in reliance on IFAS

In accordance with the regulations of the OJK and the Indonesia Stock Exchange ("IDX"), we are required to report our financial results to the OJK in conformity with IFAS. We have provided the OJK with our financial results for the year ended December 31, 2020 on April 29, 2021. We furnished such financial results to the SEC on Form 6-K dated April 30, 2021, which contains our Consolidated Financial Statements as of and for the year ended December 31, 2020, and prepared in conformity with IFAS. IFAS differs in certain significant respects from IFRS and, as a result, there are differences between our financial results as reported under IFAS and IFRS, including profit for the year attributable to owners of the parent company and net income per share. We distribute dividends based on profit for the year attributable to owners of the parent company and net income per share determined in reliance on IFAS.

Based on IFAS financial statements, our profit for the year attributable to owners of the parent company would be Rp18,663 billion in 2019 and Rp20,804 billion in 2020 and our net income per share would be Rp188.40 in 2019 and Rp210.01 in 2020. For 2019, dividends declared per share were Rp154.07 and dividends declared per ADS were Rp15,407. The dividend for 2020 will be decided at the 2021 AGMS, scheduled on May 28, 2021.

As a foreign private issuer in the U.S., we are permitted to, and we have relied and will rely on exemptions from certain NYSE corporate governance standards applicable to domestic U.S. issuers. This may afford less protection to holders of our ADSs

We are exempted from certain corporate governance requirements of the NYSE by virtue of being a foreign private issuer in the U.S. We are required to provide a brief description of the significant differences between our corporate governance practices and the corporate governance practices required to be followed by domestic U.S. companies listed on the NYSE. See "Item 16D. Exemptions from the Listing Standards for Audit Committees" and "Item 16G. Corporate Governance." The standards applicable to us are considerably different than the standards applied to domestic U.S. issuers. For instance, we are not required to: have a majority of the board of be independent (although all of the members of the audit committee must be independent under the Exchange Act), have a compensation committee or a nominating or corporate governance committee consisting entirely of independent directors, have regularly scheduled executive sessions for non-management directors, or have executive sessions of solely independent directors each year.

We have relied on and intend to continue to rely on some of these exemptions. As a result, holders of our ADSs may not be provided with the benefits of certain corporate governance requirements of the NYSE.

As a foreign private issuer in the U.S., we are exempt from certain disclosure requirements under the Exchange Act, which may afford less protection to holders of our ADSs than they would enjoy if we were a domestic U.S. company

As a foreign private issuer in the U.S., we are exempt from, among other things, the rules prescribing the furnishing and content of proxy statements under the Exchange Act and the rules relating to selective disclosure of material non-public information under Regulation FD under the Exchange Act. In addition, our executive officers, directors and principal shareholders are exempt from the reporting and short-swing profit and recovery provisions contained in Section 16 of the Exchange Act. We are also not required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as domestic U.S. companies with securities registered under the Exchange Act. For example, in addition to annual reports with audited financial statements, domestic U.S. companies are required to file with the SEC quarterly reports that include interim financial statements reviewed by an independent registered public accounting firm and certified by the companies' principal executive and financial officers. By contrast, as a foreign private issuer, we are not required to file such quarterly reports with the SEC or to provide quarterly certifications by our principal executive and financial officers. As a result, holders of our ADSs may be afforded less protection than they would under the Exchange Act rules applicable to domestic U.S. companies.

The voting rights of holders of our ADSs are limited by the terms of the Deposit Agreement

Holders of our ADSs may exercise their voting rights with respect to the ordinary shares underlying their ADSs only in accordance with the provisions of the Deposit Agreement. Upon receipt of voting instructions from them in the manner set forth in the Deposit Agreement, the depositary for our ADSs will endeavor to vote their underlying ordinary shares in accordance with these instructions. Under our Articles of Association, minimum notice periods apply for convening a general meeting or an extraordinary general meeting of shareholders. When such meetings are convened, holders of our ADSs may not receive sufficient notice of a shareholders' meeting to permit them to allow them to exercise their voting rights with respect to any specific matter at the meeting. In addition, the Depositary may not be able to send voting instructions to holders of our ADSs or carry out their voting instructions in a timely manner. Furthermore, the Depositary will not be responsible for any failure to carry out any instructions to vote, for the manner in which any vote is cast or for the effect of any vote. If no voting instructions are received by the Depositary from an holder of our ADSs on or before the date specified by the Depositary, subject to certain exceptions, the Depositary shall deem that such holder has instructed the Depositary to give a discretionary proxy to a person designated by us with respect to the shares underlying such holder's ADSs. As a result, holders of our ADSs may not be able to exercise their rights to vote and they may lack recourse if the ordinary shares underlying their ADSs are not voted as they requested.

Holders of our ADSs may be subject to limitations on transfer of their ADSs

ADSs are transferable on the books of the Depositary. However, the Depositary may close its transfer books at any time or from time to time when it deems expedient in connection with the performance of its duties. In addition, the Depositary may refuse to deliver, transfer or register transfers of ADSs generally when our books or the transfer books of the Depositary are closed, or at any time if we or the Depositary deems it 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.

Holders of our ADSs may not receive distributions on our ordinary shares or any value for them if it is illegal or impractical to make them available to them

The Depositary of our ADSs has agreed to pay holders of our ADSs the cash dividends or other distributions it receives on our ordinary shares or other deposited securities after deducting its fees and expenses, and subject to certain tax withholdings, as applicable. Holders of our ADSs will receive these distributions in proportion to the number of our ordinary shares that their ADSs represent. However, the Depositary is not responsible for making these payments or distributions if it is unlawful or impractical to make a distribution available to any holders of ADSs. For example, it would be unlawful to make a distribution to a holder of ADSs if it consists of securities that require registration under the U.S. Securities Act but that are not properly registered or distributed pursuant to an applicable exemption from registration. We have no obligation to take any action to permit the distribution of our ADSs, ordinary shares, rights or anything else to holders of our ADSs. This means that holders of our ADSs may not receive the distributions we make on our ordinary shares or any value for them if it is illegal or impractical for us to make them available. These restrictions may materially reduce the value of the ADSs.

Holders of our ADSs may experience dilution of their holdings due to their inability to participate in rights offerings

We may, from time to time, distribute rights to our shareholders, including rights to acquire securities. 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 ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.