

ALPHABET INC. (GOOGL)

Interactive Media & Services | US

Exposed to risks of substantial regulatory scrutiny on several fronts

Score attribution by key issue

This chart highlights the company's positioning relative to the industry average for each Key Issue that contributed to its ESG Rating as of October 15, 2021.



Last ESG Rating action

Rating action date: June 28, 2021

Alphabet's rating is unchanged at 'BBB'.

Alphabet faces risks related to regulatory scrutiny on platform security and privacy, and related to stakeholder scrutiny on issues such as shareholder rights and employee discrimination (refer to the controversies report for details). The company also faces anti-trust investigations in multiple markets, including in its home market, the US, which may indicate systemic risks.

- ▶ The French privacy regulator, CNIL, levied a EUR 100 million (~USD 120 million) fine in December 2020 for the company's third-party cookie practices. Alphabet plans to block third-party cookies from its search platform, Google Chrome, effective 2022. While Google's third-party cookie replacement technology (FLoC) appears to address direct privacy issues, it may increase anti-trust scrutiny. Alphabet has many privacy best practices, including external audits of its security systems.
- ▶ Google, which operates on both the demand and supply sides of online advertising, was fined EUR 220 million (~USD 268 million) by France's competition authority (Autorite de la concurrence) in June 2021, for anti-competitive practices. The company agreed to change practices that were considered self-preferencing.
- ▶ Technology companies could face challenges related to retention, due to high competition for skilled talent. Alphabet appears to continue to be an employer of choice among peers, with its strong suite of benefits that may foster loyalty.

Analysts: Reshmi Pillai, Andrew Young

MSCI

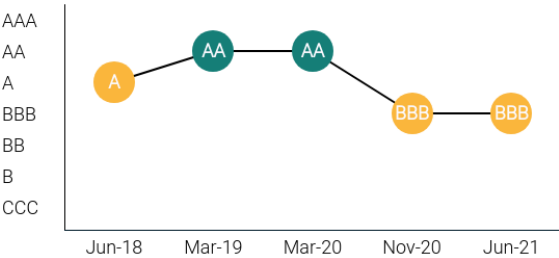
ESG RATINGS

BBB

CCC B BB **BBB** A AA AAA

LAST UPDATE: October 15, 2021

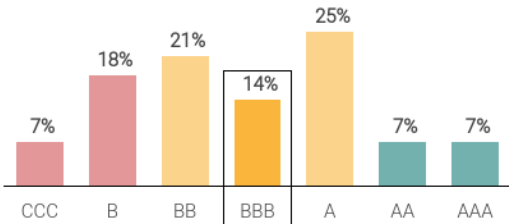
ESG Rating history



ESG Rating history shows five most recent rating actions

ESG Rating distribution

Universe: MSCI ACWI Index constituents, Interactive Media & Services, n=28



Key scores

	Weight	Score (0-10)
Industry-Adjusted Score		5.1
Weighted-Average Key Issue Score		4.3
Environmental Pillar Score	16%	7.1
Social Pillar Score	47%	5.4
Governance Pillar Score	37%	1.6

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What is an ESG Rating? MSCI ESG Ratings aim to measure a company's resilience to long-term ESG risks. Companies are scored on an industry-relative AAA-CCC scale across the most relevant Key Issues based on a company's business model.

*Notice: A member of the MSCI Board of Directors or an MSCI named executive officer is a board member or otherwise affiliated with the company that is the subject of this report.

ESG Rating scorecard

As of October 15, 2021

KEY ISSUE	WEIGHT	INDUSTRY AVERAGE	SCORE (0-10)	CHANGE	EXPLANATION
Weighted-Average Key Issue Score		3.9	4.3		
ENVIRONMENT	16%	7.8	7.1		
Opportunities in Clean Tech*	11%	5.8	5.8		<ul style="list-style-type: none">100% of revenues from business lines commonly involved in clean techSignificant revenues from clean tech product lines relative to peers
Carbon Emissions	5%	7.9	10.0		<ul style="list-style-type: none">Carbon Intensity 64% lower than industry average
SOCIAL	47%	3.5	5.4		
Privacy & Data Security	26%	4.2	7.3		<ul style="list-style-type: none">Involved in moderate controversiesEvidence of extensive data protection processes, including certification to external information security management standards and robust compliance programs (e.g.. system audits and employee trainings)
Human Capital Development	21%	2.6	3.0		<ul style="list-style-type: none">Involved in severe & moderate controversiesComprehensive talent pipeline development efforts relative to peers, including partnerships with educational institutions for staff trainings
GOVERNANCE	37%	4.3	1.6	▲ 0.2	
Corporate Governance		5.2	3.8	▲ 0.3	<ul style="list-style-type: none">The company falls into the lower scoring range relative to global peers, reflecting key areas of concern related to the board and ownership structure.
Corporate Behavior		4.9	1.0		<ul style="list-style-type: none">Involved in moderate controversiesSubstantial operations in regions where data indicates moderate to high levels of perceived corruption

* denotes company-specific Key Issue
This table shows the Key Issue scores and weights contributing to the company's ESG Rating and any changes to those scores since the last ESG Rating action. The range of possible scores is 0-10, where 10 is best and 0 is worst.

Rating model details

Alphabet was rated based on a modified version of the Interactive Media & Services Industry ESG Rating model:

- Opportunities in Clean Tech has been added as a company-specific Key Issue due to the company's significant involvement in renewable energy projects.

Company response

Response in last 12 months? _____ Yes
Date of last interaction _____ Dec 2021
Frequency of interactions* _____ High

All companies are provided the opportunity to review their data. For details, see [Appendix](#) in full ESG Rating report.
*Frequency of interactions represents interactions over the past two years: High = Ten or more incoming communications; Medium = Between 3 and 9 incoming communications; Low = Between 1 and 2 incoming communications

Recent developments affecting ESG scores

This table shows the last 10 score changes* and rating actions that have occurred in the past 12 months.

Date ▲	Type	Score (0-10)	Change	Explanation
	Current Weighted-Average Key Issue Score	4.3		
Oct 15, 2021	Issuer Verification: Corporate Governance		▲0.1	Flags Removed: Cumulative Voting Governance Score changed based on the listed Key Metric(s): Majority Voting
Sep 24, 2021	Data Update: Corporate Governance		▲0.1	Governance Score changed based on the listed Key Metric(s): Expense Recognition
Sep 02, 2021	Data Update: Corporate Governance		▼0.1	Governance Score changed based on the listed Key Metric(s): Expense Recognition
Jun 28, 2021	ESG Rating action	4.2	▼0.1	Alphabet's rating is unchanged at 'BBB'.
Mar 19, 2021	Data Update: Corporate Governance		▼0.1	Flags Added: Long-Term Pay Performance Versus Peers
Feb 19, 2021	Data Update: Corporate Governance		▲0.1	Flags Added: Revenue Recognition Flags Removed: Long-Term Pay Performance Versus Peers, Revenue Recognition
Jan 29, 2021	Data Update: Corporate Governance		▲0.1	Flags Removed: Variable Interest Entity
Nov 21, 2020	ESG Rating action	4.2	▲0.1	Alphabet has been downgraded to 'BBB' from 'AA'.
Nov 05, 2020	Methodology Update: ESG Ratings	4.1	▼1.0	Methodology Enhancements: scores recalculated to reflect enhancements to the ESG Ratings model.
Sep 28, 2020	Issuer Verification: ESG			Feedback provided on Corruption & Instability

This table outlines the latest changes to specific data points that have occurred, the trigger for change (e.g. issuer feedback, data update or methodology enhancements) and the overall impact on the company's Weighted Average Key Issue Score. Companies are monitored on a continuous basis and significant score changes may trigger an ESG Rating action.

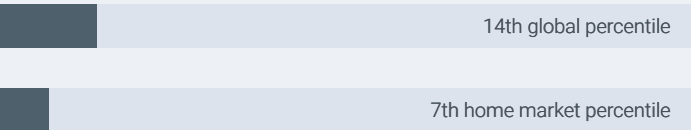
[View additional recent developments affecting the ESG score](#)

Most recent controversies

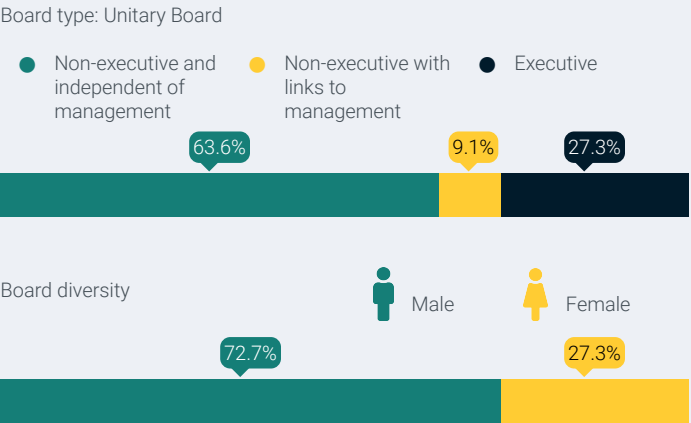
Last update	Headline	Assessment	Type
Dec-21	<u>U.K.: CMA investigation into alleged duopoly with Apple in mobile ecosystems</u>	Moderate	Anticompetitive Practices
Dec-21	<u>New Mexico, US: State attorney general's lawsuit over alleged collection of school children data without parental consent; settlement reached</u>	Minor	Privacy & Data Security
Dec-21	<u>US: Shareholders' derivative lawsuits alleging board mismanagement resulting in antitrust liabilities</u>	Minor	Governance Structures
Dec-21	<u>South Carolina, US: Lawsuit over alleged wrongful termination of temporary worker</u>	Moderate	Discrimination & Workforce Diversity
Dec-21	<u>European Union: Lawsuits, complaints, and penalties over alleged GDPR violations</u>	Moderate	Privacy & Data Security

This table shows the most recently updated controversies facing the company. Controversies are considered alongside other factors when assessing a company and may or may not impact the company's ESG Rating. For further details, See [Controversies Detail section](#) in full ESG Rating report appendix.

Corporate governance summary



Board of directors



Ownership summary

Capital structure	Multiple Equity Classes; Deviates from One-Share One Vote	Top shareholders Co-founders - 51.6% of the voting rights of which Larry Page (26.3% of the votes), and Sergey Brin (25.3% of the votes)
Ownership classification	Controlling Shareholder	
Key Owner Types	Founder Firm	
CEO		

Name: Sundar Pichai	Total realized pay*: USD 87,951,864.00
Tenure: 2 Years	Total summary pay*: USD 7,425,547.00

*CEO pay figures are sourced from listed company annual reports and proxy filings. When a new CEO is named the pay figures for the previous CEO will be displayed until this information has been updated for the new CEO

Peer benchmarking

LARGEST 5 INDUSTRY PEERS (INTERACTIVE MEDIA & SERVICES)	Carbon Emissions	Opportunities in Clean Tech	Human Capital Development	Privacy & Data Security	Corporate Governance	Corporate Behaviour	Rating & Trend
NAVER Corporation	● ● ● ●	N/A	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	AAA ▲ ▲
ALPHABET INC.	● ● ● ●	●	● ● ●	● ● ● ●	●	●	BBB ◀ ▶
TENCENT HOLDINGS LIMITED	● ● ● ●	N/A	● ● ● ●	● ● ●	●	●	BBB ◀ ▶
SNAP INC.	● ● ● ●	N/A	●	● ●	● ●	● ● ●	BB ◀ ▶
META PLATFORMS, INC.	● ● ● ●	N/A	● ●	●	● ● ●	●	B ◀ ▶
MATCH GROUP, INC.	●	N/A	●	● ●	● ● ● ●	●	B ◀ ▶

QUARTILE KEY : Bottom Quartile ● Top Quartile ● ● ● ●

RATING TREND KEY : Maintain ◀ ▶ Upgrade ▲ Upgrade by two or more notches ▲ ▲ Downgrade ▼ Downgrade by two or more notches ▼ ▼

This table shows the company's positioning relative to five of its 28 industry peers. Industry peers are constituents of the MSCI ACWI Index in the ESG Ratings Industry classified as Interactive Media & Services, as of October 15, 2021. The selection of five industry peers in this distribution is based on market capitalization, sorted by ESG Ratings (best to worst).

Analyst insights

Happy anniversary! Green projects on track for its 2030 carbon-free energy agenda; social projects focus primarily on external communities

August 20, 2021
Kevin Kwok

Alphabet issued USD 5.75 billion in sustainability bonds in August 2020, larger than any sustainability or green bond to date. However, the sustainability bonds were deemed ineligible for inclusion in the Bloomberg Barclays MSCI Green Bond Index during our assessment in 2020 due to lack of transparency on the use of proceeds allocation on the total USD 5.75 billion.

Alphabet continues to maintain its stronghold as a leader in carbon emissions reduction with carbon intensity 66% lower than the industry average alongside its peer Facebook (MSCI, August 2021). Over the past year, Alphabet has already allocated USD 3.47 billion, or 61%, of the net proceeds to eight of its green and social Eligible Project categories: i) energy efficiency, ii) clean energy, iii) green buildings, iv) clean transportation, v) circular economy and design, vi) affordable housing, vii) commitment to racial equity, and viii) support for small businesses and COVID-19 response. Over 90% of the USD 3.47 billion went towards the first three categories striving to run its entire business on carbon-free energy by 2030 around the clock. Nevertheless, we do not expect the three social project areas to affect the privacy & data security and human capital development key issues. These social projects primarily focus on supporting external communities rather than its own operations and infrastructure such that of the environmental projects. Although Alphabet and Facebook continue to be leaders in environmental initiatives (as of August 2021), they remain under the microscope by regulators regarding anti-trust and content integrity, and constant scrutiny on workforce diversity.

Sustainability bond issuances in 2020 by North America grew more than 164% year over year (CBI, April 2021). Unlike ESG- or sustainability- linked bonds, sustainability bonds are purely based on Eligible Projects and do not include performance outcome triggers. The credit risk of the sustainability bond is no different than that of a general-purpose bond, which ties to the creditworthiness of the issuer itself. Moreover, Alphabet's credit risk is minimal at around 0.2x debt-to-EBITDA on its USD 14 billion in total debt outstanding, while generating about USD 75 billion EBITDA the last 12 months. Alphabet also sustains a strong balance sheet with about USD 135 billion cash and cash equivalents available, providing plenty of cushion for future debt issuances while maintaining its high investment grade status.

The emissions are in the details

August 11, 2021
Andrew Young

Alphabet's latest carbon emissions reduction pledge: "24/7 by 2030" is at the same time ambitious and limited in scope. By seemingly excluding most of its indirect (Scope 3) emissions, the pledge may leave investors focused on "Net Zero" wanting.

By the company's 2020 estimates,* 93% of its gross emissions footprint come from indirect sources along its value chain, most notably its capital goods purchases and consumer devices manufacturing (Scope 3, category 2 emissions).**

Whereas big tech peer, Microsoft's 2030 goal includes mitigation measures for its indirect (Scope 3) emissions, like an internal carbon tax[†], Alphabet's pledge appears to only focus on operational emissions (Scope 1 and 2). Specifically, to ensure that all electricity used by its operations (offices and data centers) will be from carbon-free sources, all the time.

The pledge does not lack ambition, given that it has offices and data centers in locations that currently do not have ready access to renewable electricity. For example, its data center in Singapore consumes electricity from the local grid, of which 97% comes from non-renewable sources. We also considered the pledge to be feasible, given Alphabet's track record of achieving its targets and the efforts to date to support it, including the issuance of its first sustainability linked bond in 2020 (USD5.75 bn), the funds of which will be allocated to initiatives to support energy efficiency and green building transitions, amongst other projects.

The pledge adds to Alphabet's long history of sector leadership in addressing its operational emissions footprint. Since 2007, the company has offset its operational carbon emissions footprint through purchases of renewable energy and carbon offsets like landfill gas capture, agriculture methane capture and forestry projects.

*2020 CDP Climate Change Response and 2020 Sustainability Report

**GHG protocol

^Each of Microsoft's divisions is charged USD15/metric ton of estimated scope 3 emissions

🔺 Cultural issues may undercut ambitious diversity program

July 19, 2021
Andrew Young

Diversity & Inclusion (D&I) is a prevalent issue in the US Interactive Media & Service (IMS). IMS companies have faced scrutiny for the homogeneity of their workforces, which has also been cited as a root cause of discrimination in consumer tech platforms.*

Alphabet, along with social media operators Facebook and Twitter were the only three companies in the IMS industry** to have produced quantitative disclosures about the racial/ethnic diversity of their US workforces.

In the company's own words, data transparency makes "a critical contribution to creating systemic, industry-wide solutions". While critical, it may also be only an initial step towards addressing the complex issue of workplace diversity. More difficult might be the actions to address the disparities in its US workforce, which remains majority white and male:

Alphabet looks to improve diversity in its hiring practices, for example through offering desirable benefits that might encourage female candidates to apply - like generous parental leave allowances.*** But Alphabet's workforce composition data suggest that progress towards greater equality remains a significant issue.

Adding to the disparities highlighted by the data, Alphabet has faced several workforce discrimination related controversies in recent years: A 2021 settlement over gender discrimination in pay and hiring practices may suggest that there remain cultural issues to resolve.

*Wired.com, "Five years of tech diversity reports - and little progress", October 1, 2019 and Harvard Business Review, "To increase diversity, US tech companies need to follow the talent", December 4, 2020

**Constituents of the MSCI ACWI index, as of July 14, 2021

***"Determinants of Occupational Segregation across Race and Gender: Evidence from Sourcing, Screening, and Hiring in IT firms", Parasurama et al., 2020

🔺 Third-party cookies have long been controversial. The replacement technologies might be too

April 23, 2021
Andrew Young

The online advertising market appears to be undergoing a transition to new technologies amid evolving regulations over cookies. Alphabet's Google, which controls a 92% market share of internet search, announced plans to block third-party cookies from its main Chrome platform by 2022. Google's smaller rivals, Mozilla's Firefox and Apple's Safari search engines blocked third-party cookies by default in 2019 and 2020 respectively.

Eradicating third-party cookies may be a positive step forward from an individual privacy point of view as fewer parties may be able to collect, process or share personal behavioral information. But eliminating an available route for advertisers to collect behavioral data for tailored advertising may serve to further concentrate advertising markets in the hands of the major advertising gatekeepers like Google as advertisers may need to rely further on Google for their consumer insights. Google is building an alternative targeting system called FLoC into its Chrome browser for advertisers to purchase access to. FLoC, by virtue of using algorithms to determine anonymized group profiles for targeted advertising may carry risks of discrimination or exploitation, for example by suggesting audiences to advertisers that may be vulnerable to exploitative products.

Cookies, and especially third-party cookies, have come under scrutiny from privacy regulators in multiple jurisdictions. The French privacy regulator, CNIL, in December 2020 imposed a EUR100 million fine on Google for its cookie practices, which were considered non-compliant with the EU GDPR's complementary regulation specifically covering unsolicited marketing, cookies and confidentiality - the e-Privacy Directive (ePD). Google's French search engine automatically deposited cookies, including third party cookies, on users' browsers (i.e. without consent) and the process to remove the cookies was not considered clear enough.

Big tech anti-trust enforcement: Pincer movement

November 02, 2020
Andrew Young

The US 'big tech' companies, Apple, Amazon, Facebook and Alphabet have faced significant anti-trust scrutiny in their home market in 2020. This includes hearings by the US Senate Judiciary Committee in August 2020 and document request orders from the regulator, the US Federal Trade Commission (FTC) in February 2020 regarding their acquisitions between 2010 and 2020, which are being subjected to fresh antitrust review. The outcome of these investigations has culminated in an antitrust case brought by the Department of Justice (DoJ) against Alphabet's Google Search internet search engine which enjoys a market share approaching 90% in the US (see research note: "Default Status" on the Alphabet ESG Ratings report).

There may be many questions about what this case means for this group of big tech companies, such as, who will be next? But the group of companies might do well to keep their eye on as seemingly more forward-looking anti-trust regulator, the European Commission (EC):

The EC has open investigations into Apple and Amazon and is in a legal dispute with Facebook. It fined Alphabet a combined EUR8.2 billion in three separate cases between 2017 and 2019, including in a similar case of product 'bundling' to the one launched by the DoJ. However, the EC's Commissioner for Competition, Margarethe Vestager suggested that cases to date have been ineffectual from the point of view of stimulating competition (Reuters interview, June 2020). It appears to have shifted focus to a regulatory approach to stimulating competition: The region's anticipated Digital Services Act (publication is expected by the end of 2020) may have implications for all the US big tech companies. For example, it may require tech companies to share data with smaller competitors in standardized and non-discriminatory ways, potentially lowering the barriers for access to data, a key input for innovation.

Default status: A solid anti-trust case against Google Search

October 26, 2020
Andrew Young

The US Department of Justice (DoJ) filed an antitrust case against Alphabet on October 21, 2020, targeting the company's ubiquitous internet search engine, Google Search. Precedent suggests a fine and change of practice order may be enforced (see below). Whether this will stimulate competition in internet search is debatable, given Google's entrenched position in global internet search markets and its financial capacity to absorb a fine.

A search engine sits on an internet browser, and an internet browser sits on an operating system. The DoJ argues that the company's relationships through this value chain are anticompetitive. These relationships cover major mobile operating systems (OS) providers, Apple's iOS and its own Android OS, and major internet browsers, Apple's Safari, Mozilla's Firefox and Google's own Chrome browser. Google allegedly has restrictive commercial relationships with these partners to ensure a default position for its search engine. A default (or status quo) bias creates a massive advantage in any market, but perhaps especially for internet search, where more traffic improves search results and generates more data from users, which improves targeted advertising.

Case precedent in the US and abroad may support the DoJ's case: In 2001, it forced Microsoft to unbundle its Windows OS and Internet Explorer browser. In 2017, the European Commission found Google acted anticompetitively by requiring phone manufacturers to install Chrome and Search as a condition to license its Android OS (Google paid a USD5.1 billion fine and was forced to self-remedy this bundling practice).

However to stimulate competition, the DoJ could refer to more unlikely precedent: In 2016, Russia's Federal Antimonopoly Service (FAS) went a step further than the EU and required a neutral 'choice screen' for users of Android phones to select their browser of choice. This appears to have contributed to a more competitive search market between Google and local player, Yandex.

A hard-line approach to preserving a dominant market position

September 08, 2020
Andrew Young

Following an 18 month inquiry into the country's online advertising market, Australia's anti-trust regulator (the ACCC) has proposed a law (the News Media Bargaining Code) to require online platforms to share a portion of their advertising revenues with news media and increase transparency into how content is prioritized on their platforms. In response, both Alphabet and Facebook have adopted hard-line approaches to protect their duopolistic market position in Australia's online advertising market.

The ACCC argues that consumers increasingly turn to social media for news content and the benefits of this are not equitably shared with news content producers. Google appears to have adopted a combative stance, labeling the law as ‘unworkable’ and suggesting that its online search and news services may be at risk. Facebook’s has adopted an equally hard-line stance by threatening to block from their platforms all content from Australian news media that support the code.

Whether the ACCC proposal becomes law remains to be seen. A similar law implemented in Spain resulted in Google withdrawing its Google News service from the market. However, in Australia or elsewhere, anti-trust regulators appear to be closing in on the two online advertising giants:

The company continues to be subject to further to anti-trust probes in several countries, including its home market, the US. It is the European Commission that has shown itself to be the most proactive anti-trust enforcer with three separate anti-trust fines over the past four years, totaling EUR 8.2 billion, including for abuse of its dominant market position in online advertising (March 2019). But, a series of white papers on the region’s digital strategy published on February 19, 2020 suggest that further anti-trust enforcement against big tech may be a longer-term legislative play.

Will there be a Google Healthcare?

August 04, 2020
Andrew Young

Compared to its industry peers, Alphabet appears to offer its employees exceptional healthcare benefits, including support like on-site doctors and nurses. The company seems to be keen on extending some healthcare services to its billions of users too. However, many stakeholders question the sincerity of its healthcare interests.

Google has, in recent years been tapping individuals’ healthcare data while carefully avoiding legal scrutiny. For example, from 2017, the company accessed anonymized data from the University of Chicago’s medical school. Some fear and argue in a 2019 class action court filing (Dinerstein v Google LLC), that the company could pair this data with its existing databases, such as geolocations, to link anonymized data to individuals. Google also announced a partnership with healthcare provider Ascension in November 2019 to build a search tool for medical professionals to assist in diagnoses and prescriptions. Again, media reports indicate possible concerns about how else the company might utilize its access to patient data or whether appropriate patient consent was obtained to share their data with Google. The possible acquisition of Fitbit (it has been approved by Fitbit shareholders) is another chapter in this story. Healthcare data from Fitbit’s database, which includes real-time data, is not subject to the U.S. Health Insurance Portability and Accountability Act (HIPAA), the law that covers the personal healthcare information, because Fitbit is not a healthcare insurer or provider.

Multiple lawsuits and settlements regarding the company’s privacy practices in several jurisdictions, such as the US, EU and Australia may lower trust in its assurances to responsibly use healthcare data.

With extensive computing ability and scope of data sources, Alphabet is a near ubiquitous digital economy actor. Personal healthcare data extends the company’s reach even further and raises questions of privacy, but possibly also of anti-trust.

Capacity, expertise and data availability has brought substantial clean technology opportunities

March 22, 2019
Andrew Young

Alphabet continues to make substantial investments into utility-scale renewable energy projects (e.g. wind and solar farms) as well as rooftop solar system projects. The company has committed to invest a total of USD 2.5 billion in renewable energy projects with a total combined capacity of 3.7 GW under its Google Ventures business arm. With the separation of the venture capital arm, Google Ventures, from Google, the company is better positioned to develop a clearer focus on development of emerging and leading edge technologies, such as robotics, artificial intelligence, cyber security, and renewable energy. While these business lines only account for a marginal part of the total business for Alphabet (through Other Bets segment which generated USD 809 million in FY2016, 0.9% of group revenue), growth prospect from these areas is high. Within its core business unit, Google cloud-based services bring environmental gain and cost savings as they run on substantially more efficient infrastructure than they likely would if hosted locally by its customers and provide sophisticated infrastructures on which downstream companies

to innovate. Alphabet has also devoted some of its expertise in developing solutions to help clients to reduce their fleet emissions through its Corporate Carsharing approach AlphaCity and advanced eMobility solution AlphaElectric. Through Google Earth, for example, the company makes it possible to view changes in the Earth's environment over many years through time lapse satellite photography, illustrating the effects of climate change. Such projects fit with the company's other initiatives to leverage its vast data mining and analytics capacities for social good, for example through crisis maps, flu and dengue trends maps, and person finder services. We believe it is likely that Google will continue to introduce such data-driven services based on environmental information.

Content Integrity: industry developments

March 22, 2019
Andrew Young

Regulation: There is wide-scale debate over the responsibility to ensure the integrity of content that is disseminated on social media platforms or search engines. As the debate continues, we note signs of regulatory momentum in curbing phenomena such as online disinformation: The European commission has circulated a proposal for an EU-wide Code of Practice to tackle disinformation, which will look to hold platforms such as Facebook to account for manipulative content, or at least force platforms to scale up their diligence practices around, for instance political advertising, verification of the veracity of disseminated information or the ultimate sources of content. A UK parliamentary sub-committee recently published its report on "Disinformation and 'fake news'", detailing recommendations for possible regulations, including holding platforms to account, and public media literacy initiatives. The US Federal Trade Commission has begun to investigate ways to 'regulate algorithms' to restrict malicious attackers ability to distribute propaganda and other misinformation. German regulators have gone furthest in curbing disinformation through the enactment of the Network Enforcement Act (NEA), which puts the onus on platforms to remove hate speech in a timely manner or face fines. Self-Regulation: Industry stakeholders gathered in May 2018 at a conference in Santa Clara, California in the wave of the Facebook-Cambridge Analytica revelations. The principles of transparency (i.e. disclosing the volumes and types of content moderated) and due process (i.e. for content producers in the case that their content has been moderated) were agreed at the conference and published by the industry pressure group, the Electronic Frontier Foundation (EFF) and its partner groups as the "Santa Clara" principles. The principles represent a starting point for an approach to responsibly moderate content.

Content integrity: company progress

March 22, 2019
Andrew Young

The scale of its Search and YouTube platforms means that the company, like Facebook, is highly susceptible to content related issues like disinformation. Beyond disinformation, the accessibility of a platform like YouTube, also poses risks of manipulation of vulnerable audiences, such as children. Alphabet has reacted strongly to the pressure from its stakeholders: Besides scaling up to 10,000 content reviewers, it publicly reports on levels of content that is moderated (Community Guidelines enforcement report). It offers escalation channels for users, ensuring accountability and building user trust. Through media reports, it appears that Alphabet has some of the most advanced Natural Language Processing tools to identify content that may need be to reviewed. Google search now uses fields like 'website reputation', 'creator of main content' and 'beneficial purpose' in its algorithms. It has also recently made enhancements to its advertising practices to provide users with greater context: such as information as to why a user was targeted for a particular ad, fact-checking labels and feedback buttons. These efforts have impacted the overall operating performance. Some major advertisers cut ties with YouTube in early 2019 following content integrity controversies. The loss of major clients and the publicity around these cases has cost YouTube advertising revenues and may also contribute to further scaling up of content moderation cost bases. Given the scale of platforms such as YouTube, it is likely that malicious or otherwise harmful content will slip through the cracks and Alphabet may face content-related controversies in the future. However, the complexity of the issues, the company's position as a market leader in countering many of these issues, and its capacity to dedicate vast resources to these issues likely means that the company is well positioned to continue to weather the backlash of future controversies.

Advertising operations carry inherent privacy concerns. The company has responded with some best-in-class security practices

March 22, 2019

Google, Alphabet's chief subsidiary accounts for virtually its entire revenue base. Google's business model rests on the collection of user personal data and monetization of that data through online advertising (advertising accounts for around USD80 billion or the

Andrew Young

company's USD90 billion in revenues). The company's business model has attracted significant regulator and consumer attention over the years and the company continues to be closely watched for lapses in privacy and data security. We find that Alphabet has strong privacy and data security commitment and policies, which are enforced with best-in-class structures such as adopting a privacy-by-design approach (a key principle of the EU GDPR). The company also proactively manages third party risks by conducting assessments of the security and privacy practices of business partners and suppliers as part of the supplier onboarding process as well as third-party security audits of its information security management system. This can be viewed in contrast to the apparent failure of such controls at Facebook, which contributed towards the Cambridge Analytica data misuse case. While Alphabet is no stranger to privacy controversies and will most likely face more scrutiny in the future, we find the company to be well positioned, relative to other search engine, internet platform and social media peers, to avoid privacy missteps. Further, the company will have the capacity to handle the fallout of most privacy-related controversies, and offers some best-in-class privacy practices, to mitigate regulatory risks.

▶▶ The EU is the most likely regulator to crack down on anti-trust concerns

March 22, 2019
Andrew Young

Alphabet has stood out among the top tech companies as the most targeted for anti-trust probes around the world (from Australia to France, India, Turkey, Russia, EU and the US). The company has so far weathered three multi-billion dollar anti-trust fines imposed by the European Commission's Directorate General for Competition: In 2017, regarding the objectivity of its search results. In 2018, regarding the abuse of its dominant market position concerning its Android system software and in 2019, regarding the restricting of rival advertisements on its search product. The fines have also come with change-in-practice orders and the company has received smaller fines in other jurisdictions. The EU has proven most effective regulator in enforcing anti-compensation sanctions and following in the footsteps of 'open banking' regulation in the banking industry, appears to be the likely body to enforce change-of-practice guides to foster greater competition in the tech industry. Relative to the EU, the company's home market regulator, the US Federal Trade Commission (FTC), appears not to have imposed any serious restrictions on the company business (as far as we can establish)- such as blocked acquisitions, fines or statement of objections. But it has recently established a task force to evaluate competition in US technology markets. This is considered only a long term risk to the company, given the history of limited action, relative to the European Commission.

ESG Rating drill down

Description	As of last rating action date: Jun 28, 2021		As of last update date: Oct 15, 2021		Difference	
	Score	Weight	Score	Weight	Score	Weight
ESG Rating Letter Grade	BBB		BBB		-	-
Industry Adjusted Score	5.1		5.1		-	-
Industry Minimum Score	2.3		2.3		-	-
Industry Maximum Score	6.0		6.0		-	-
Weighted Average Key Issue Score	4.2		4.3		0.1	-
Environmental Pillar Score	7.1	16.0%	7.1	16.0%	-	-
Carbon Emissions Key Issue Score	10.0	5.0%	10.0	5.0%	-	-
Exposure Score	2.6		2.6		-	-
Business Segment Exposure Score	2.2		2.2		-	-
Geographic Exposure Score	6.9		6.9		-	-
Management Score	7.5		7.5		-	-
Management Score - Excluding Controversies	7.5		7.5		-	-
Practices Score	8.8		8.8		-	-
Performance Score	5.0		5.0		-	-
Opportunities in Clean Tech Key Issue Score	5.8	11.0%	5.8	11.0%	-	-
Exposure Score	5.1		5.1		-	-
Business Segment Exposure Score	5.1		5.1		-	-
Management Score	6.0		6.0		-	-
Management Score - Excluding Controversies	6.0		6.0		-	-
Practices Score	6.3		6.3		-	-
Performance Score	5.5		5.5		-	-
Controversy Deduction	0.0		0.0		-	-
Social Pillar Score	5.4	47.0%	5.4	47.0%	-	-
Human Capital Development Key Issue Score	3.0	21.0%	3.0	21.0%	-	-
Exposure Score	9.3		9.3		-	-
Business Segment Exposure Score	8.3		8.3		-	-
Company-Specific Exposure Score	1.0		1.0		-	-
Management Score	5.3		5.3		-	-
Management Score - Excluding Controversies	7.8		7.8		-	-
Practices Score	8.5		8.5		-	-
Performance Score	6.5		6.5		-	-
Controversy Deduction	-2.5		-2.5		-	-
Privacy & Data Security Key Issue Score	7.3	26.0%	7.3	26.0%	-	-
Exposure Score	8.4		8.4		-	-
Business Segment Exposure Score	6.6		6.6		-	-
Geographic Exposure Score	7.8		7.8		-	-
Management Score	8.7		8.7		-	-
Management Score - Excluding Controversies	10.0		10.0		-	-
Practices Score	10.0		10.0		-	-
Controversy Deduction	-1.3		-1.3		-	-

Description	As of last rating action date: Jun 28, 2021		As of last update date: Oct 15, 2021		Difference	
	Score	Weight	Score	Weight	Score	Weight
Governance Pillar Score*	1.4	37.0%	1.6	37.0%	0.2	-
Governance Pillar Deductions**	-8.6		-8.4		0.2	-
Corporate Governance Deductions	-5.0		-4.8		0.2	-
Board	-2.3		-2.3		-	-
Pay	-0.7		-0.7		-	-
Ownership & Control	-2.0		-1.8		0.2	-
Accounting	-0.1		-0.1		-	-
Corporate Behavior Deductions	-3.5		-3.5		-	-
Business Ethics	-3.2		-3.2		-	-
Tax Transparency	-0.3		-0.3		-	-

*Companies last rated prior to November 2020 will continue to show legacy Governance Key Issues (Corruption & Instability, Financial System Instability, Business Ethics & Fraud, and Anticompetitive Practices) in the ESG Rating drill down. These key issues will be removed from the drill down and replaced with Corporate Behavior and Corporate Governance Deductions at the next re-rating.

**Beginning November 2020, the Environmental Pillar Score and Social Pillar Score are calculated based on the weighted average of underlying Key Issue Scores, while the Governance Pillar Score is calculated based on 10 minus the sum of Corporate Governance and Corporate Behavior deductions. In the ESG Rating drill-down, deductions are scaled to indicate impact on the overall Governance Pillar Score. In subsequent sections of the report, deductions are scaled to show impact on the Corporate Behavior and Corporate Governance Theme Scores.

Overflow table: Recent developments affecting ESG scores

Date ▲	Type	Score (0-10)	Change	Explanation
	Current Weighted-Average Key Issue Score	4.3		
Oct 15, 2021	Issuer Verification: Corporate Governance		▲0.1	Flags Removed: Cumulative Voting Governance Score changed based on the listed Key Metric(s): Majority Voting
Sep 24, 2021	Data Update: Corporate Governance		▲0.1	Governance Score changed based on the listed Key Metric(s): Expense Recognition
Sep 02, 2021	Data Update: Corporate Governance		▼0.1	Governance Score changed based on the listed Key Metric(s): Expense Recognition
Jun 28, 2021	ESG Rating action	4.2	▼0.1	Alphabet's rating is unchanged at 'BBB'.
Mar 19, 2021	Data Update: Corporate Governance		▼0.1	Flags Added: Long-Term Pay Performance Versus Peers
Feb 19, 2021	Data Update: Corporate Governance		▲0.1	Flags Added: Revenue Recognition Flags Removed: Long-Term Pay Performance Versus Peers, Revenue Recognition
Jan 29, 2021	Data Update: Corporate Governance		▲0.1	Flags Removed: Variable Interest Entity
Nov 21, 2020	ESG Rating action	4.2	▲0.1	Alphabet has been downgraded to 'BBB' from 'AA'.
Nov 05, 2020	Methodology Update: ESG Ratings	4.1	▼1.0	Methodology Enhancements: scores recalculated to reflect enhancements to the ESG Ratings model.
Sep 28, 2020	Issuer Verification: ESG			Feedback provided on Corruption & Instability
Jun 16, 2020	Data Update: Governance		▼0.2	Flags Added: Board Attendance Failures, Clawbacks & Malus, Run Rate Concerns, Severance Vesting, Variable Interest Entity Governance Score changed based on the listed Key Metric(s): Revenue Recognition
Apr 20, 2020	Data Update: Exposure		▲0.1	Change in exposure score for the following Key Issue(s): Corruption & Instability, Human Capital Development, Opportunities in Clean Tech, Privacy & Data Security
Mar 28, 2020	ESG Rating action	5.2	▼0.2	Alphabet's rating is unchanged at 'AA'.
Jan 10, 2020	Data Update: Governance		▲0.1	Flags Removed: Executives on Board Governance Score changed based on the listed Key Metric(s): Entrenched Board
Mar 27, 2019	ESG Rating action	5.2		We re-initiate coverage of Alphabet at 'AA'.



Corporate Governance

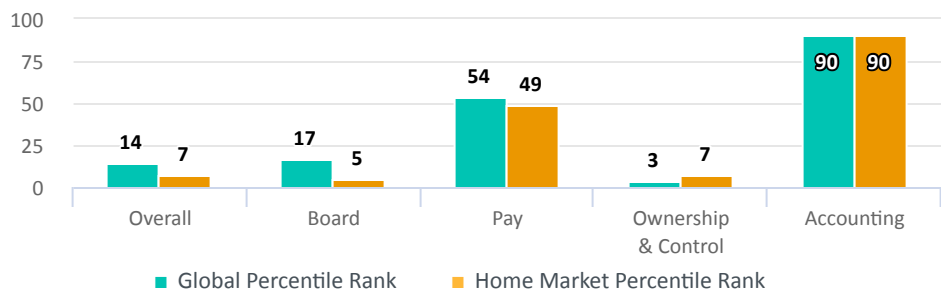
Score	Change (since rating)	Quartile	As of
3.8	▲ 0.3	•	Oct 08, 2021

Market Cap:1,964,501,057,572 USD

Home Market:United States

Last Data Update:Oct 08, 2021

GOVERNANCE THEMES AND RANKINGS



KEY DATES

Financial Year End	December 31
Annual Filing Date	Apr 23, 2021
AGM Date	Jun 02, 2021

WEBSITE

https://abc.xyz/

**Key areas of concern include flagged key metrics within the three sub-issues that represent the largest scoring deductions. Please review the full report to see the complete set of flagged key metrics.*

SUMMARY

Alphabet falls into the lower scoring range for all the companies we assess relative to global peers, indicating the presence of significant risks in one or more areas. The key areas of concern relate to: the board and ownership structure.

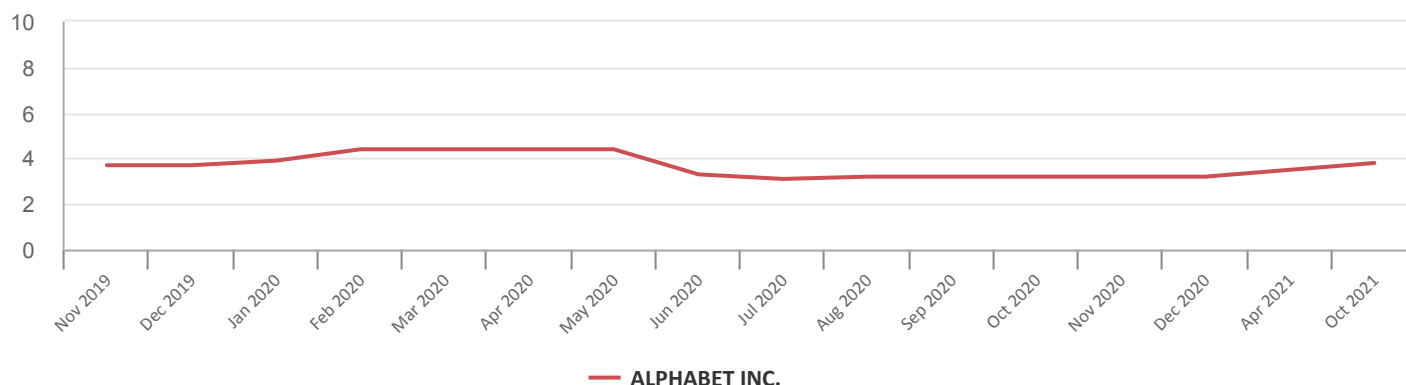
KEY AREAS OF CONCERN*

SCORING DEDUCTIONS

Board Effectiveness	(-1.10)
Overboarded Non-Exec Directors	
Significant Votes Against Directors	
Ownership Structure	(-1.00)
Controlling Shareholder	
Controlling Shareholder Concerns	
Board Skills & Diversity	(-0.90)
Entrenched Board	
Not 30% Female Directors	

***Notice:** A member of the MSCI Board of Directors or an MSCI named executive officer is a board member or otherwise affiliated with the company that is the subject of this report.

CORPORATE GOVERNANCE SCORE HISTORY



CHANGES TO FLAGGED KEY METRICS (SINCE AUGUST 2020)

Key Metric	Key Metric Change	Date	Score Change*	Change Notes
Cumulative Voting	Flag Removed	Oct 08, 2021	0.10	Following issuer feedback, subsequently verified
Significant Vote Against Pay Practices	Flag Removed	Jun 22, 2021	0.15	
Run Rate Concerns	Flag Removed	Jun 02, 2021	0.20	
CEO Pay Perks & Other Comp	Flag Added	Jun 02, 2021	-0.20	
Board Attendance Failures	Flag Removed	Jun 02, 2021	0.10	
Auditor Tenure	Flag Added	Jun 02, 2021	-0.20	
Long-Term Pay Performance Versus Peers	Flag Added	Mar 15, 2021	-0.20	
Revenue Recognition	Flag Removed	Feb 18, 2021	-0.04	Updates to data for accounting peer group member(s)
Revenue Recognition	Flag Added	Feb 15, 2021	0.04	Updates to data for accounting peer group member(s)
Long-Term Pay Performance Versus Peers	Flag Removed	Feb 15, 2021	0.20	
Variable Interest Entity	Flag Removed	Jan 25, 2021	0.50	
Long-Term Pay Performance Versus Peers	Flag Added	Dec 04, 2020	-0.20	

Note: A full list of score changes (including where there is no Key Metric Change) is included in the Appendix.

*Score change available in respect of changes dated on or after 13 December 2017.

BOARD OVERVIEW

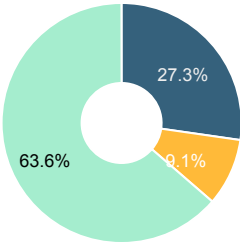
Board Type: Unitary Board

Board of Directors

CEO
Chair

Sundar Pichai
John Hennessy

Since: Dec 03, 2019
Since: Jan 31, 2018



Executive Leadership

CFO

Ruth Porat

Since: Oct 01, 2015

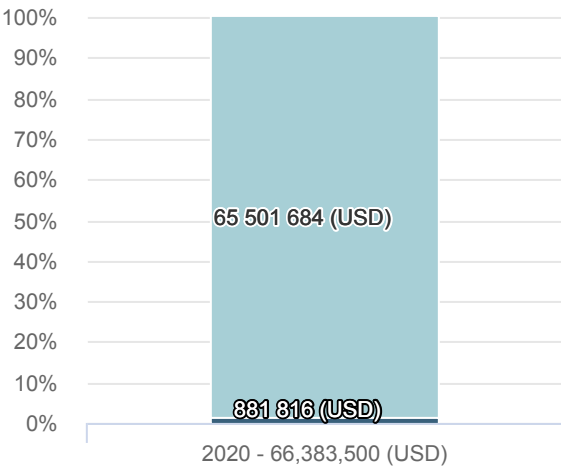
Executive

Links to Management

Independent of Management

PAY OVERVIEW

Highest Paid Executive - Philipp Schindler



Long Term Incentives Awarded

Short Term Incentives Awarded

Fixed Pay

65,501,684 (USD)

0 (USD)

881,816 (USD)

BOARD

Certain aspects of the Alphabet board may not be well aligned with sustainable shareholder interests. We have flagged this board for potential concerns regarding the board leadership structure, the presence of certain related party transactions, possible board entrenchment, some non-executives may have too many other public board commitments and notable dissent on director election votes.

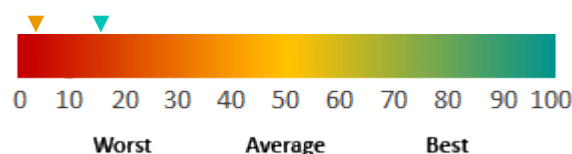
0-10 Score	Global Percentile Rank	Home Market Percentile Rank
4.9	17th (Below Average)	5th (Worst In Class)

KEY METRICS SCORING

	Deduction
AUDIT OVERSIGHT	
Overboarded Audit Committee Members	-0.10
Auditor Tenure	-0.20
BOARD EFFECTIVENESS	
Overboarded Non-Exec Directors	-0.50
Significant Votes Against Directors	-0.60
BOARD INDEPENDENCE	
Related Party Transactions	-0.24
BOARD LEADERSHIP	
Leadership Concerns	-0.30
BOARD SKILLS & DIVERSITY	
Entrenched Board	-0.80
Not 30% Female Directors	-0.10
PAY OVERSIGHT	
Pay Committee Independence	-0.10

BOARD PERFORMANCE VS.

▼ Global ▼ Home Market



LEADERSHIP

CHIEF EXECUTIVE OFFICER

History	CEO Since	Until	Name	Gender	Age
Current	Dec 2019		Sundar Pichai	M	48
Former	Oct 2015	Dec 2019	Larry Page	M	48

CHIEF FINANCIAL OFFICER

History	CFO Since	Until	Name	Gender	Age
Current	Oct 2015		Ruth Porat	F	63

CHAIR

History	Chair Since	Until	Name	Gender	Age
Current	Jan 2018		John Hennessy	M	68
Former	Apr 2011	Jan 2018	Eric Schmidt Ph.D.	M	66

LEADERSHIP CONCERNS














- A Founder remains on the board but does not hold either the Chair or CEO roles.

BOARD OF DIRECTORS





The Alphabet board currently has an independent majority, which enables it to more effectively fulfill its critical function of overseeing management on behalf of shareholders. Additionally, the company has split the roles of CEO and chair and has named a fully independent chairman. An independent chairman is characteristic of 37% of companies in MSCI ESG Research's coverage. We also note concerns with the board leadership structure which creates the potential for increased management influence and board level conflicts of interest.

Number of Board Meetings: 4

Non-executives meet in absence of Executives: Yes

Name	M/F	Age	Tenure (Years)	Boards	Independent of Mgmt	Independent of Other Interests	Management Link/ Designation Reason	Nationality
Alan Mulally	M	75	7	1	Yes	Yes		Not Disclosed
Ann Mather  	F	60	16	5	Yes	Yes		Not Disclosed
Frances Arnold	F	64	2	2	Yes	Yes		Not Disclosed
John Hennessy 	M	68	17	1	Yes	Yes		Not Disclosed
K. Ram Shriram 	M	64	23	1	Yes	Yes		Not Disclosed
L. John Doerr 	M	69	22	4	No	Yes	Material related party transaction	Not Disclosed
Larry Page  	M	48	23	1	No	No	Founder Firm Director; Executive	United States of America
Robin Washington 	F	58	2	4	Yes	Yes		Not Disclosed
Roger Ferguson Jr.  	M	69	5	4	Yes	Yes		United States of America
Sergey Brin 	M	47	23	1	No	No	Founder Firm Director; Executive	United States of America
Sundar Pichai  	M	48	4	1	No	Yes	Executive	India
	F	# >= 70	# >= 15 yrs	# >= 4				
Total (of 11)	3	1	6	4	7	9		
Percentage	27.3%	9.1%	54.5%	36.4%	63.6%	81.8%		

Note: Board count includes the membership of this board.

 - Financial Expert (6)  - Industry Expert (4)  - Risk Management Expert  - Chief Executive Officer
 - Chair of the Board

RELATED PARTY TRANSACTIONS

The risk to minority shareholders arising from related party transactions is a function of the nature of the related party, the relative size of the transaction and the pricing of the transaction. The board, and in particular the independent directors or audit committee, play a key role in the protection of minority shareholders' interests, and monitoring and managing potential conflicts of interest of management, board members and shareholders. We note that the following circumstances which suggest elevated risk for independent shareholders:

The company is a founder firm and there are related party transactions with the founder.
There are related party transactions with the CEO.

Reported Transactions

FY 2020 : FY 2019: Related party transactions are identified with entities related to the company cofounders and several executive and independent directors. Transactions include costs associated Use of Moffett Airfield and an agreement with BCH San Jose LLC (BCH) to license the use of a portion of BCH's hangar space at the Mineta San Jose International Airport to hold Google's corporate aircraft. Larry, Sergey, and Eric each own one-third interests in BCH, through their respective affiliated entities. Also this includes Office Building Lease to the Kitty Hawk Corporation and Wisk Aero LLC

FY 2019: Related party transactions are identified with entities related to the company cofounders and several executive and independent directors. Transactions include costs associated with corporate aircraft usage and charitable donations .

For the two most recently reported fiscal years, these value of these transactions can be summarised as follows :

Fiscal Year	Related Party Types	Aggregate Transaction Value		Type
		Value (CUR)	% of Total	
Dec 31, 2020	Founder, CEO, Family, Other, Non-executive director	1,034,635 USD	0.001% of Total Revenue	Recurring income from related party
		890,195 USD	0.001% of Expenses	Recurring purchases from related party
Dec 31, 2019	Founder, CEO, Family, Other, Non-executive director	1,397,089 USD	0.001% of Total Revenue	Recurring income from related party
		559,562 USD	0.000% of Expenses	Recurring purchases from related party

Sources : 2021 DEF 14A Pg. 34,35,36, 2020 DEF 14A p34-36

BOARD EFFECTIVENESS

There appears to be director overboarding on this board, with at least one non-executive director sitting on too many boards. MSCI ESG Research considers a non-executive director to be overboarded when they sit on three or more additional boards (i.e. four total boards, including the rated company) in MSCI ESG Research's corporate governance research universe. For CEOs and other executive directors, we have established a limit of two additional boards (i.e. three boards including the rated company). We note that 29% of companies in United States are flagged for overboarded directors.

Notably, one or more of the company's directors have received a negative or withheld shareholder vote in excess of 10% in the company's most recently reported election, indicating shareholder dissatisfaction with that individual's performance as a director.

Nomination Committee - Number Of Meetings: 5

Name	M/F	Age	Board Tenure (Years)	Independent of Mgmt of Other Interests		Committee Status
Frances Arnold	F	64	2	Yes	Yes	Member
John Hennessy	M	68	17	Yes	Yes	Chair

BOARD SKILLS & DIVERSITY

MSCI ESG Research has flagged the board as potentially entrenched due to a number of long-serving directors. An entrenched board may be detrimental to sustainable shareholder interests during periods of extended underperformance and we do see the potential for such entrenchment at this firm due to a significant number of long-serving directors. While we recognize the benefits of experience, long-tenured directors may form relationships that could compromise their independence and therefore hinder their ability to provide effective oversight. Additional factors, e.g. the presence of a controlling shareholder together with the high number of long-tenured directors, may raise some investors' concerns about the board's ability to provide an effective counterbalance to management. We note that 26% in United States have been flagged for having an entrenched board.

We have flagged the Alphabet board for gender diversity concerns.

A board with one or more active CEOs and overboarded directors may not be able to provide effective oversight of management. Their other roles may limit the time and attention required to fulfill their fiduciary duties.

AUDIT OVERSIGHT

Audit Committee - Number Of Meetings: 6

Name	M/F	Age	Board Tenure (Years)	Boards	Independent of Mgmt	Independent of Other Interests	Committee Status
Alan Mulally	M	75	7	1	Yes	Yes	Member
Ann Mather <div>I</div> <div>\$</div>	F	60	16	5	Yes	Yes	Chair
Roger Ferguson Jr. <div>R</div> <div>\$</div>	M	69	5	4	Yes	Yes	Member

\$

 - Financial Expert (2)

I

 - Industry Expert

R

 - Risk Management Expert

Risk Committee - Number Of Meetings: 6

Name	M/F	Age	Board Tenure (Years)	Independent of Mgmt	Independent of Other Interests	Committee Status
Alan Mulally	M	75	7	Yes	Yes	Member
Ann Mather <div>I</div> <div>\$</div>	F	60	16	Yes	Yes	Chair
Roger Ferguson Jr. <div>R</div> <div>\$</div>	M	69	5	Yes	Yes	Member

\$

 - Financial Expert (2)

I

 - Industry Expert

R

 - Risk Management Expert

PAY OVERSIGHT

Pay Committee - Number Of Meetings: 4

The Alphabet board does not include a fully independent pay committee which may impact its ability to design rigorous incentives for executives.

Name	M/F	Age	Board Tenure (Years)	Independent of Mgmt	Independent of Other Interests	CEO Role?	Committee Status
K. Ram Shriram <div>\$</div>	M	64	23	Yes	Yes		Member
L. John Doerr <div>\$</div>	M	69	22	No	Yes		Member
Robin Washington <div>\$</div>	F	58	2	Yes	Yes		Chair

\$

 - Financial Expert (3)

CONTROVERSIES & EVENTS

No major relevant controversies have been uncovered.

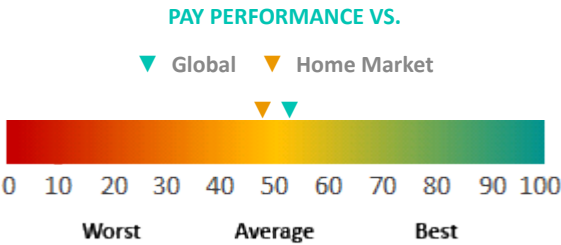
PAY

Executive pay practices at Alphabet fall into the average scoring range relative to global peers. Areas of particular concern include early vesting provisions in share based awards which offer a poor alignment with shareholder interests.

0-10 Score	Global Percentile Rank	Home Market Percentile Rank
5.9	54th (Average)	49th (Average)

KEY METRICS SCORING

	Deduction
PAY FIGURES	
CEO Pay Perks & Other Comp	-0.20
PAY PERFORMANCE ALIGNMENT	
Long-Term Pay Performance Versus Peers	-0.20
Clawbacks & Malus	-0.20
Pay Linked to Sustainability	-0.20
SEVERANCE & CHANGE OF CONTROL	
Severance Vesting	-0.10



PAY FIGURES

EXECUTIVE PAY - 2020

Executive	Title	Tenure (Years)	Total Awarded Pay (USD)	Total Realized Pay (USD)
Kent Walker I	Executive		50,882,663	29,768,098
Larry Page I \$	Director	23	1	1
Philipp Schindler I	Executive		66,383,500	45,386,888
Prabhakar Raghavan I	Executive		55,250,610	29,575,608
Ruth Porat I \$	CFO	6	50,890,683	29,776,118
Sergey Brin I	Director	23	1	1
Sundar Pichai I	CEO	4	7,425,547	87,951,864

\$ - Financial Expert (2) I - Industry Expert (7)

CEO PAY DETAILS - Sundar Pichai

Pay Awarded		2020
Fixed Pay		
Salary		2,015,385 USD
Fees		0 USD
Pension		0 USD
Perks & Other Pay		5,410,162 USD
Variable Pay		
<i>Short-term incentives</i>		
Annual Bonus		0 USD
Other Non-equity Incentive Plan		0 USD
<i>Long-term incentives</i>		
Grant date value of Stock Options		0 USD
Grant date value of Stock Awards		0 USD
Total Awarded Pay		7,425,547 USD

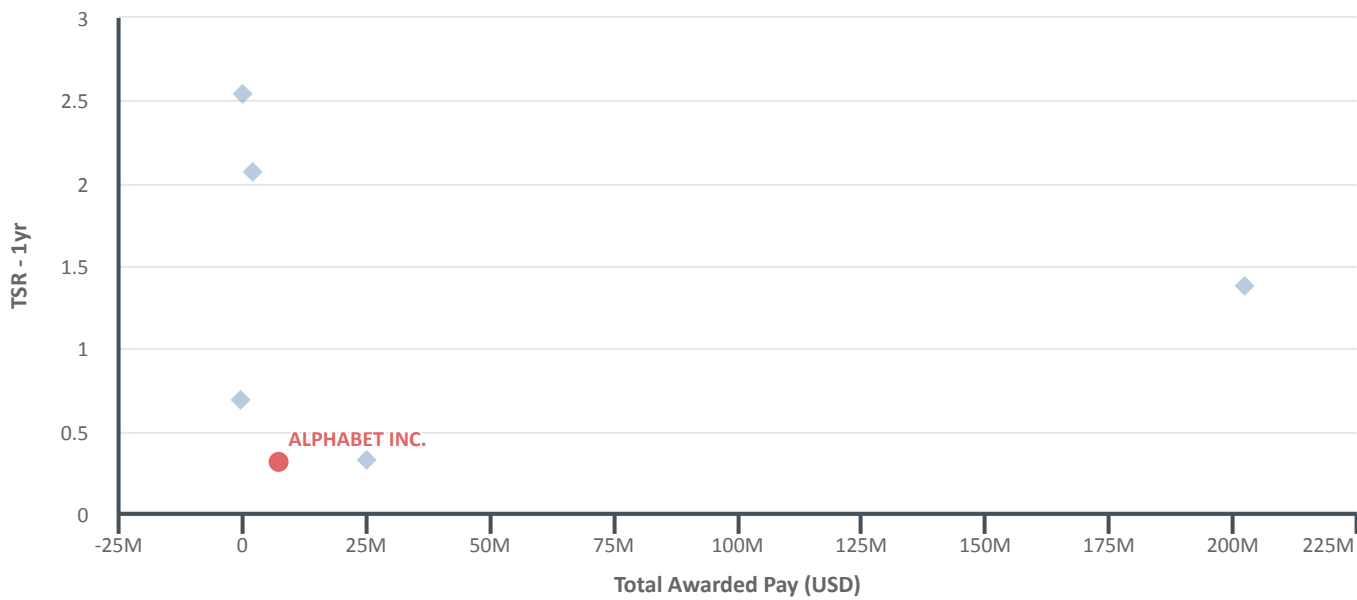
Pay Realized		
Fixed Pay		
Salary		2,015,385 USD
Fees		0 USD
Pension		0 USD
Perks & Other Pay		5,410,162 USD
Variable Pay		
<i>Short-term incentives</i>		
Annual Bonus		0 USD
Other Non-equity Incentive Plan		0 USD
<i>Long-term incentives</i>		
Options Exercised		3,595,837 USD
Stock Awards Vested		76,930,480 USD
Total Realized Pay		87,951,864 USD

PAY PEER GROUP

LARGCAP - DEVELOPED AMERICAS - INTERACTIVE MEDIA & SERVICES (7 COMPANIES)

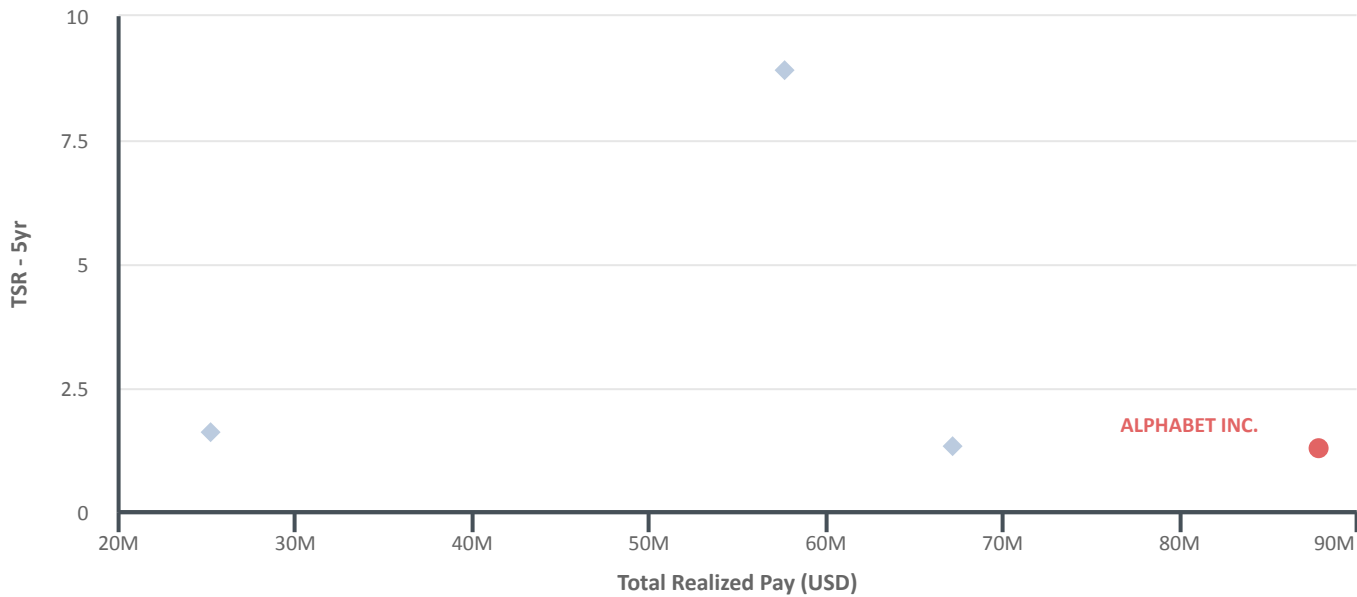
Company	Home Market	Market Cap (USD m)	Pay Year	1 Yr TSR	Total CEO Annual Pay (USD)	CEO Name	CEO Since
META PLATFORMS, INC.	United States	940,318	2020	0.33%	25,288,265	Zuckerberg	Jul 2004
ALPHABET INC.	United States	1,920,048	2020	0.31%	7,425,547	Pichai	Dec 2019
IAC/INTERACTIVECORP.	United States	11,695	2020	1.38%	6,323,132	Levin	Jun 2015
SNAP INC.	United States	76,688	2020	2.07%	2,094,432	Spiegel	May 2012
ZoomInfo Technologies Inc	United States	39,893	2020		1,088,082	Schuck	Nov 2019
PINTEREST, INC.	United States	26,127	2020	2.54%	199,100	Silbermann	Jan 2019
TWITTER, INC.	United States	35,311	2020	0.69%	1	Dorsey	Sep 2015

CEO TOTAL AWARDED PAY VERSUS PAY PEER GROUP



Pay Peers (♦) are used in the calculation of the Key Metric CEO Pay Total Summary and selected as set out in the MSCI Governance Metrics Methodology Document.

CEO TOTAL REALIZED PAY VERSUS PAY PEER GROUP



Pay Peers (♦) are used in the calculation of the Key Metric CEO Pay Total Summary and selected as set out in the MSCI Governance Metrics Methodology Document.

PAY PERFORMANCE ALIGNMENT

CEO & EXECUTIVE EQUITY

Minimum Stock Ownership Requirements:

The Founders of Google and the Chief Executive Officer of Alphabet and Google shall each own shares of Alphabet stock equal in value to at least \$30.0 million.

Executive	Tenure (Years)	Shares Held	YoY % Change	Shareholding As % of Salary
Kent Walker I		0		
Larry Page I \$	23	19,952,558		
Philipp Schindler I		0		
Prabhakar Raghavan I		0		
Ruth Porat I \$	6	1,403		
Sergey Brin I	23	19,168,466		
Sundar Pichai I	4	6,582	20.26%	572.14%

\$ - Financial Expert (2) I - Industry Expert (7)

PAY LINKED TO SUSTAINABILITY

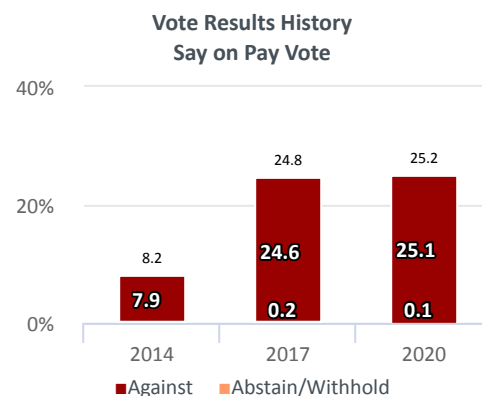
The company has failed to incorporate links to sustainability performance in its current incentive pay policies.

CLAWBACK & MALUS

No clawback or malus provisions have been identified.

LATEST PAY VOTES

Year	Vote Type	Votes For %	Votes Against %	Abstain %
2020	Advisory Vote on Executive Compensation	74.8%	25.1%	0.1%










EQUITY PLAN DILUTION

	2020	2019	2018
Shares Outstanding	674,136,665	687,286,090	695,186,396
Equity Reserved	8.6%	8.4%	9.1%
Shares granted/awarded (in year)	1.9%	2%	1.8%

NON-EXECUTIVE DIRECTOR PAY

NON-EXECUTIVE EQUITY

Director	Tenure (Years)	Shares Held
Alan Mulally	7	0
Ann Mather  	16	836
Frances Arnold	2	0
John Hennessy	17	3,243
K. Ram Shriram 	23	144,037
L. John Doerr 	22	1,263,041
Robin Washington 	2	0
Roger Ferguson Jr.  	5	0

 - Financial Expert (5)  - Industry Expert
 - Risk Management Expert

NON-EXECUTIVE PAY TABLES

Director	Tenure (Years)	Cash Fees	Other Comp	Stock Award	Total Pay	Total Pay (USD)
Alan Mulally	7	75,000 USD		352,320 USD	427,320 USD	427,320
Ann Mather  	16	100,000 USD		352,320 USD	452,320 USD	452,320
Frances Arnold	2	38,248 USD		1,188,057 USD	1,226,305 USD	1,226,305
John Hennessy	17	100,000 USD		503,314 USD	603,314 USD	603,314
K. Ram Shriram 	23	75,000 USD		352,320 USD	427,320 USD	427,320
L. John Doerr 	22	75,000 USD		352,320 USD	427,320 USD	427,320
Robin Washington 	2	75,000 USD		352,320 USD	427,320 USD	427,320
Roger Ferguson Jr.  	5	75,000 USD		352,320 USD	427,320 USD	427,320

 - Financial Expert (5)  - Industry Expert  - Risk Management Expert

CONTROVERSIES & EVENTS

No major relevant controversies have been uncovered.

OWNERSHIP & CONTROL

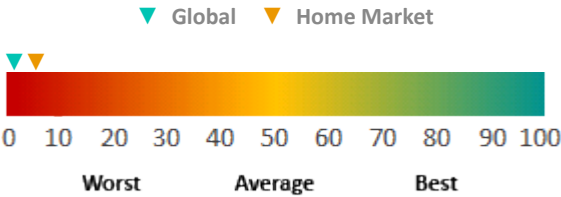
The ownership structure and shareholder rights at Alphabet raise potential concerns for shareholders, including the relationship with the controlling shareholder, share classes with unequal voting rights, the vote standard utilized for the election of directors, the ability of shareholders to nominate candidates for election and inclusion of these candidates on the company proxy card and the calling of a special shareholder meeting.

0-10 Score	Global Percentile Rank	Home Market Percentile Rank
2.2	3rd (Worst In Class)	7th (Below Average)

KEY METRICS SCORING

	Deduction
DIRECTOR ELECTIONS	
Majority Voting	-0.10
Proxy Access	-0.20
ONE SHARE ONE VOTE	
Multiple Equity Classes with Different Voting Rights	-0.55
OWNERSHIP STRUCTURE	
Controlling Shareholder	0.00
Controlling Shareholder Concerns	-1.00
SHAREHOLDER RIGHTS	
Bylaws Amendments	-0.10
Shareholder Rights to Convene Meeting	-0.10
TAKEOVER PROVISIONS	
Business Combination Provision	-0.10
Fair Bid Treatment Provisions	-0.10

OWNERSHIP & CONTROL PERFORMANCE VS.



CORPORATE STRUCTURE

Public Company

CAPITAL STRUCTURE

Capital Type	Votes Per Share	Shares Outstanding
Class A common stock	1.0	300,746,730
Class B common stock	10.0	45,836,948
Class C capital stock	0.0	324,511,693

Each share of Class A Common Stock is entitled to 1 vote.

Each share of Class B Common Stock is entitled to 10 votes.

Class C Capital Stock is not entitled to vote on any matter.

OWNERSHIP STRUCTURE

OWNERSHIP CATEGORIES

- Controlling Shareholder
- Founder Firm

NOTABLE SHAREHOLDERS

Co-founders - 51.6% of the voting rights of which Larry Page (26.3% of the votes), and Sergey Brin (25.3% of the votes)	51.6%
5%+ shareholders - Aggregate Voting Power	0%
Insider Voting Power	53.1%

Alphabet is a controlled company, where a single shareholder or shareholder block holds 30% or more of the voting shares or has effective control of the board. The controlling shareholder controls 51.6% of the voting power. The company has not, however, taken the controlled company exemption available to such firms under current SEC and exchange listing requirements, but has chosen to meet the prevailing standards regarding board and committee independence. The company's multiple share classes also have disparate voting rights which, in concert with the presence of a controlling shareholder, may have a negative impact on minority shareholder rights. We have identified this company as a 'founder firm', where the company's founder is still an active member of either the board or company management. At Alphabet, there may be governance risks associated with related party transactions among the controlling founders/family. Of companies in United States, some 18% are flagged for this KeyMetric. Differential voting rights mean that the economic exposure of certain shareholders is higher than their voting power.

Controlling Shareholder Concerns Criteria

No Independent Directors	No	Controlling Shareholder Percentage of Voting Rights	51.6%
Leadership Concerns	Yes	Controlled via Stock Pyramid	No
Undersized Board	No	Cross Shareholdings	No
Structured as a Limited Partnership	No	Golden Shares	No
Poison Pill	No		

FOUNDER FIRM

Larry Page is Co-founder and director. Sergey Brin is co-founder and director.

TAKEOVER PROVISIONS

Fair Price Provision	Mandatory Bid Provision	Mandatory Bid Ownership Threshold
No	No	

State of Incorporation	Business Combination Provision
Delaware	Yes

% of Votes to Approve a Merger
51%

GOVERNING DOCUMENTS

MAJORITY REQUIREMENTS

	Bylaws	Charter
Default percentage of votes required to amend a provision	51%	51%
Highest percentage of votes required to amend a specific provision	67%	67%

Bylaws

2020, Certificate of Incorporation

Approval of 60% of shares is required to amend Article 4 Section 3 (Change in Control Transaction) of the charter or this clause (ii) of Article XII;

Approval of 67% of shares is required to amend Article 4 Section 4 (Preferred Stock); Article 6 Section 3 (Business Combinations); Article 6 Section 5 (Audit Committee); Article 6 Section 6 (Advance Notice); Article 6 Section 7 (Director Compensation); Article 11 (Shareholder Actions); and Article 12 (Charter Amendments) of the charter.

SHAREHOLDER RIGHTS

There may be governance risks for investors in relation to shareholder rights and management-controlled takeover defense mechanisms at Alphabet including:

- The board's ability to amend the company's bylaws without shareholder approval
- business combination provisions that fail to include protections of shareholder interests
- fair price provisions that fail to ensure that all shareholders are treated fairly
- Limits on the right of shareholders to convene a special or emergency general meeting
- Limits on the right of shareholders to take action by written consent

SHAREHOLDER MEETINGS & RESOLUTIONS

	Call Special Meeting	Requisition a Resolution at AGM	Act by Written Consent
Percentage of shares required	20%		N/A - no right exists

RESTRICTIONS ON LEGAL ACTION BY SHAREHOLDERS

No exclusive forum provision has been identified.

SAY ON PAY

We note that shareholder votes on executive pay are mandatory in this market, affording shareholders the ability to review and approve executive pay practices at this company.

DIRECTOR ELECTIONS

BOARD RE-ELECTION PROVISIONS

Board Re-election Provisions	
Board Re-election Frequency (Years)	1
% of Board subject to re-election	100%

DIRECTOR ELECTION STANDARD

The company has not adopted a binding majority director election standard (with immediate resignation if the director does not receive a majority of the votes cast), which may limit shareholders' ability to hold members of the board accountable in uncontested elections.

Director Election Rules

Vote Standard	Majority
Immediate Binding Resignation	No

In the election of directors, the twelve persons receiving the highest number of affirmative "FOR" votes at the Annual Meeting will be elected.

The term for electing a board of directors is one year.

Proposals to Adopt Majority Voting

Year	Proposed by	Filed by	Votes For %	Votes Against %	Votes Abstain %
2020	Shareholder	Undisclosed	29.4%	70.5%	0.1%
2019	Shareholder	Undisclosed	30.3%	69.5%	0.1%

PROXY ACCESS

No proxy access provision has been identified.

Proposals on Proxy Access

No recent votes, whether filed by management or by shareholders, seeking the adoption of proxy access have been identified

ACCOUNTING

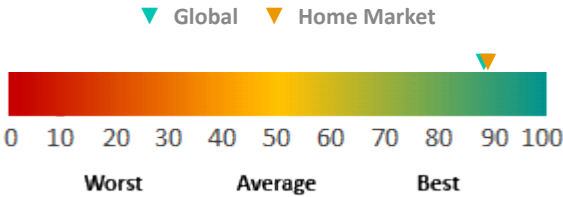
Based on the company's disclosures and other public information, accounting and financial reporting practices at Alphabet appear to be generally appropriate and effective relative to global peers.

0-10 Score	Global Percentile Rank	Home Market Percentile Rank
9.4	90th (Above Average)	90th (Above Average)

KEY METRICS SCORING

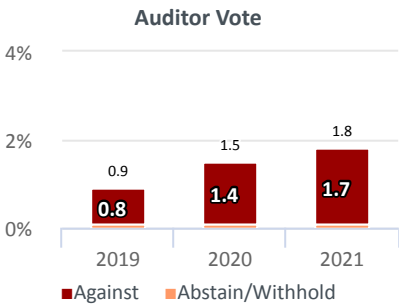
	Deduction
ACCOUNTING VARIANCE	
Revenue Recognition	-0.04
Expense Recognition	-0.04
Asset-Liability Valuation	-0.03

ACCOUNTING PERFORMANCE VS.



EXTERNAL AUDITORS

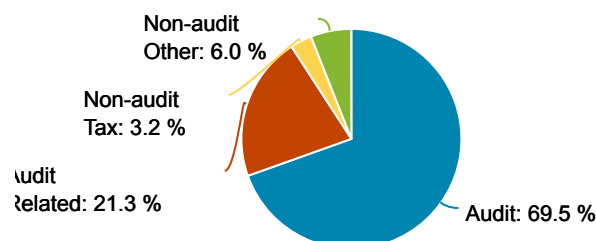
Type	Since	Firm	Most Recent Fiscal Year End Signed Off
Primary	1999	Ernst & Young LLP	2020



AUDITOR FEES

Fees paid to: Ernst & Young LLP (Primary)

Fee	Dec 31, 2020 (USD)	Dec 31, 2019 (USD)	Dec 31, 2018 (USD)
Audit	21,718,000	20,112,000	16,072,000
Audit Related	6,652,000	7,185,000	6,232,000
Total Audit + Audit Related	28,370,000	27,297,000	22,304,000
Tax Compliance/Advice	988,000	1,944,000	4,377,000
Other Non-audit Services	1,871,000	608,000	764,000
Total Non-audit Fees	2,859,000	2,552,000	5,141,000
Total Fees	31,229,000	29,849,000	27,445,000



AUDITOR REPORT

	Dec 31, 2020	Dec 31, 2019	Dec 31, 2018
Report Disclosed	Yes	Yes	Yes
Opinion	Unqualified Opinion	Unqualified Opinion	Unqualified Opinion
Emphasis of Matter	No	No	No

EMPHASIS OF MATTER

Dec 31, 2019

2019, 10K, Pg.47

The Company changed its method for accounting for the recognition, measurement, presentation and disclosure of certain equity securities in the year ended December 31, 2018.

Dec 31, 2018

As discussed in Note 1 to the consolidated financial statements, the Company changed its method for accounting for the recognition, measurement, presentation and disclosure of certain equity securities in the year ended December 31, 2018.

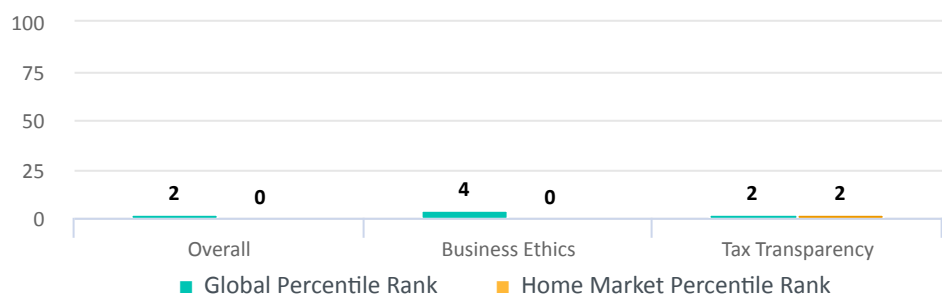
CONTROVERSIES & EVENTS

No major relevant controversies have been uncovered.

Corporate Behavior

0-10 Score	Change (since rating)	Quartile	As of
1.0	0.0	•	Jun 28, 2021

CORPORATE BEHAVIOR THEME AND KEY ISSUE RANKINGS



METHODOLOGY NOTE

This theme evaluates the extent to which companies may face ethics issues such as fraud, executive misconduct, corruption scandals, money laundering, anti-trust violations, or tax-related controversies.

* [For symbols and terms used in this report, refer to the Glossary section at the end of the report]

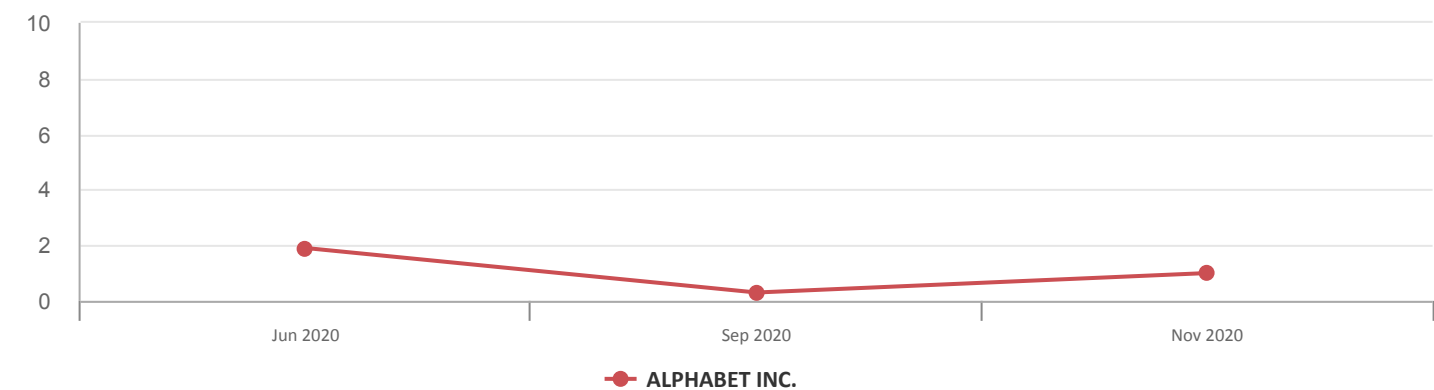
KEY AREAS OF CONCERN*

SCORING DEDUCTIONS

Business Ethics Policies & Practices	(-2.80)
Oversight for Ethics Issues	
Regular Audits of Ethical Standards	
Whistleblower Protection	
Employee Training on Ethical Standards	
Business Ethics Risk & Controversies	(-5.40)
Corruption Risk Exposure & Controversies	
Business Ethics Controversies	
Tax Transparency	(-0.80)
Tax Controversies	

*Key areas of concern include flagged key metrics that represent the largest scoring deductions. Please review the full report to see a complete set of flagged key metrics.

CORPORATE BEHAVIOR SCORE HISTORY



BUSINESS ETHICS

KEY METRICS SCORING

	Deduction
BUSINESS ETHICS POLICIES & PRACTICES	-2.80
Oversight for Ethics Issues	-0.70
Regular Audits of Ethical Standards	-0.70
Whistleblower Protection	-0.70
Employee Training on Ethical Standards	-0.70
BUSINESS ETHICS RISK & CONTROVERSIES	-5.40
Corruption Risk Exposure & Controversies	-1.80
Business Ethics Controversies	-3.60

Note: Business Ethics Policies & Practices deductions as well as Business Ethics Risk & Controversies are capped at a maximum of -7.0. Cumulative deductions are capped at 10.

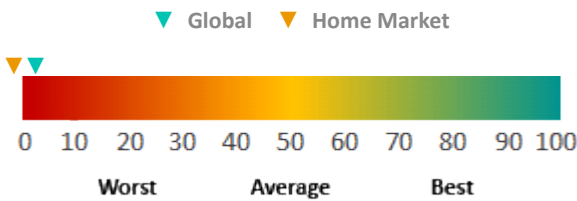
0-10 Score	Change (since rating)	Global Percentile Rank	Home Market Percentile Rank
1.6	0.0	4th (Worst In Class)	0th (Worst In Class)

METHODOLOGY NOTE

Companies are evaluated on their oversight and management of business ethics issues such as fraud, executive misconduct, corrupt practices, money laundering, or anti-trust violations.

*[For symbols and terms used in this report, refer to the Glossary section at the end of the report]

BUSINESS ETHICS VS.



BUSINESS ETHICS POLICIES & PRACTICES

Indicators	Company Practice	Best Practice	Deduction
Oversight for Ethics Issues	Special task force or risk officer	Board-level committee or C-suite or Executive committee	-0.70
Bribery and Anti-Corruption Policy	Detailed formal policy on bribery and anti-corruption	Detailed formal policy on bribery and anti-corruption	0.00
Regular Audits of Ethical Standards	Evidence of audits but no specific details / Audits conducted but not on a regular schedule	Audits of all operations at least once every three years	-0.70
Whistleblower Protection	Whistleblower protection with no details on system or legal protection	Formal anonymous whistleblower system with legal protection	-0.70
Employee Training on Ethical Standards	Programs covering all permanent employees (excluding part-time and contractors)	Programs covering all employees (including part-time) and contractors	-0.70
Anti-Corruption Policy for Suppliers	NA	All suppliers are required to have anti-corruption policies and programs to verify compliance	0.00
Policies Related to Anti-Money Laundering	NA	Policy and implementation strategy articulated	0.00

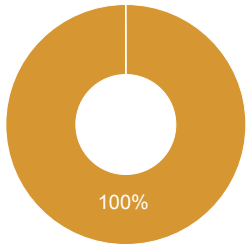
*Business Ethics Policies & Practices deductions are capped at a maximum of -7.0.

CORRUPTION RISK EXPOSURE

Exposure to: Regulatory risks or lost market access due to corruption scandals or political and social instability

Business Types : Percentage of operations in business segments perceived most likely to pay or receive bribes

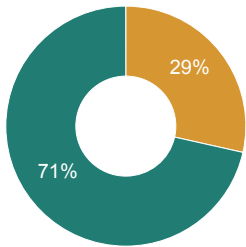
■ High Risk ■ Medium Risk ■ Low Risk



- No exposure to high risk segments
- Interactive Media and Search, Cloud computing services
- No exposure to low risk segments

Source: Bribe Payers Index (Transparency International); State Capture Index (Transparency International); Refinitiv; MSCI ESG Research; company disclosure

Business Locations : Percentage of operations in countries with high/moderate/low level of corruption and political instability, violence or terrorism



- No operations in markets with high risks
- other countries
- USA

Source: Corruption Perceptions Index (Transparency International); World Governance Indicators (World Bank); Refinitiv; MSCI ESG Research; company disclosure

CORRUPTION RISK EXPOSURE SCORING DEDUCTION KEY

% of operations in medium and high risk geographies	% of operations in high risk business segments	>=20% government ownership	<20% government ownership	No evidence of government ownership
20% or more	50% or more	-4.00	-2.60	-2.00
	Less than 50%	-1.20	-1.20	-1.20
Less than 20%	50% or more	-0.60	-0.60	-0.60
	Less than 50%	0.00	0.00	0.00

*The Corruption Risk and Controversies Deduction is based on the maximum of deductions from the corruption risk exposure and corruption controversies category listed below

BUSINESS ETHICS CONTROVERSIES

Controversy Cases

Category	Assessment	Headline	Status	Last Updated	Deduction
Business Ethics & Fraud	Moderate	Russia: RUB 200,000 FAS penalty for alleged improper advertising relating to Google AdWord system	Concluded	September 2021	-1.8
	Moderate	Russia: Communications regulator's criticism over failure to respond to requests to delete unlawful content	Ongoing	June 2021	
	Moderate	France: EUR 1.1 million penalty over alleged misleading hotel ratings in Google search results	Concluded	February 2021	

Category	Assessment	Headline	Status	Last Updated	Deduction
	Moderate	France: FCA investigation into alleged violation of revised media copyright laws; FCA ordered compensation to French publishers; Paris Court of Appeal upheld FCA's order	Ongoing	January 2021	
	Moderate	Turkey, YouTube: TRY 10 million of ICTA penalty for alleged failure to appoint compliance representative	Ongoing	November 2020	
	Moderate	Russia: Regulator demand to stop censorship of Russian content	Ongoing	October 2020	
	Moderate	India: High Court inquiry into alleged inadequate permits for G Pay's operations	Ongoing	September 2020	
	Moderate	Criticism over possible launch of censored search engine in China	Ongoing	May 2020	
	Moderate	U.K.: DCMS Sub-committee criticism over alleged insufficient regulation on false COVID-19 narratives	Ongoing	May 2020	
	Moderate	Russia: Alleged violation against the advertising law in relation to narcotic substances	Ongoing	April 2020	
	Minor	Project Nimbus: Employees' criticism against cloud service contracts with Israeli government due to potential use for surveillance of Palestinians	Ongoing	October 2021	
	Minor	Washington: USD 423,659.76 payment for alleged repeated violation of political ad transparency rules	Concluded	June 2021	
	Minor	Youtube: Criticism against blocking of Palestinian users content and academic content related to Palestine on video platform	Ongoing	May 2021	
	Minor	Italy: EUR 100,000 AGCOM penalty over alleged failure to remove gambling advertisement	Concluded	October 2020	
Anticompetitive Practices	Moderate	U.K.: CMA investigation into alleged duopoly with Apple in mobile ecosystems	Ongoing	December 2021	-1.8
	Moderate	France: EUR 500 million of FCA penalty over alleged failure to comply with temporary orders to compensate news publishers	Ongoing	November 2021	
	Moderate	EUR 2.4 billion penalty over allegations of anti-competitive practices related to online search results	Concluded	November 2021	
	Moderate	EC antitrust investigation relating to digital advertising technology services	Ongoing	November 2021	
	Moderate	Canada: Competition Bureau investigation relating to online advertising business on YouTube	Ongoing	October 2021	
	Moderate	United States: 14 states filed lawsuit over alleged anticompetitive business practices	Ongoing	October 2021	
	Moderate	Japan: FTC antitrust investigation into dominant position in the smartphone operating system market	Ongoing	October 2021	
	Moderate	EU and Russian Penalty on Allegations of Abusing Dominant Market Position over Bundling of Apps in Mobile Operating System	Ongoing	September 2021	
	Moderate	Australia: Investigation over alleged anti-competitive behavior in the news media market resulting in harm to publishers and consumers	Ongoing	September 2021	
	Moderate	Australia: Regulatory investigation on alleged anticompetitive conduct in the advertising technology sector	Ongoing	September 2021	
	Moderate	India: CCI investigation into alleged misuse of dominant market position by Android Operating System	Ongoing	September 2021	
	Moderate	South Korea: KFTC penalty over anti-competitive allegations relating to in-app purchase through Google Play store	Concluded	September 2021	
	Moderate	EC antitrust inquiry into potential competition issues within the Internet of Things (IoT) sector	Ongoing	September 2021	
	Moderate	France: EUR 220 million of FCA penalty for alleged abuse of dominant online advertising position	Concluded	September 2021	
	Moderate	Italy: USD 120 million penalty for blocking third parties from its Android Auto platform; appeal filed	Ongoing	July 2021	
	Moderate	United Kingdom: Regulatory investigation into proposed changes to Google Chrome browser and potential impact on digital advertising	Ongoing	June 2021	

Category	Assessment	Headline	Status	Last Updated	Deduction
	Moderate	Germany: Regulatory investigation into impact of market dominance, handling of user data, and Google News Showcase platform	Ongoing	June 2021	
	Moderate	Ukraine: UAH 1 million of antitrust penalty over alleged failure to provide information for investigation	Ongoing	May 2021	
	Moderate	Russia: FAS filed a case over alleged abuse of dominant position in YouTube video hosting	Ongoing	April 2021	
	Moderate	Turkey: Competition Authority investigation into alleged violation of search algorithm and targeted advertising	Ongoing	April 2021	
	Moderate	Italy: Regulator investigation into alleged unfair commercial practices and unfair clauses in contracts	Ongoing	October 2020	
	Moderate	Italy: Regulator Investigation into Alleged Antitrust Abuse in Smart Device Sector	Ongoing	May 2019	
	Moderate	Google Android: EU, Turkey, and India Regulatory Investigations into Anti-Competitive Violations Related to Mobile Platform	Ongoing	May 2019	
	Minor	South Korea: Investigation over allegation of restricting applications downloaded from other app stores from accessing Android Auto	Ongoing	May 2021	
Corruption	Moderate	Russia: Authorities filed lawsuit over alleged failure to remove protest content	Ongoing	November 2021	-1.8
	Moderate	Pakistan: PTA notice for removing alleged unlawful religious content on Google products	Ongoing	December 2020	
	Moderate	Alleged improper handling of offensive and threatening content	Ongoing	May 2020	
	Minor	California, United States: Advocacy group, Consumer Watchdog criticism over alleged biased search results on state election	Ongoing	February 2021	
	Minor	Criticism over targeted ads option allowing advertisers to potentially exclude persons of nonbinary gender from seeing housing, credit, or job ads; fix underway	Ongoing	February 2021	
	Minor	New Hampshire, United States: Lawsuit over alleged termination of user's account; lawsuit dismissed	Concluded	January 2021	
	Minor	Russia: Penalty over Alleged Failure to Exclude Illegal Information from Searches based on Russian Laws	Concluded	August 2020	

*The maximum deductions from the Anticompetitive Practices and Business Ethics & Fraud categories are summed to arrive at the overall Business Ethics Controversies deduction, which is capped at a maximum of -7.0.

TAX TRANSPARENCY

KEY METRICS SCORING

	Deduction
TAX TRANSPARENCY	-0.80
Tax Controversies	-0.80

0-10 score	Change (since rating)	Global Percentile Rank	Home Market Percentile Rank
6.0	0.0	2nd (Worst In Class)	2nd (Worst In Class)

TAX GAP ASSESSMENT

Indicators	
Tax Gap	
Estimated Effective Tax Rate	22.9%
Estimated Corporate Income Tax Rate	26.1%
Estimated Tax Gap	(3.2%)
Tax Gap Assessment	Low Gap
Revenue	
Foreign Revenue	53.4%
Confidence	
Confidence Level of Estimation	Low
Involvement in Controversies	
YES	
Tax Gap Score*	
10.0	

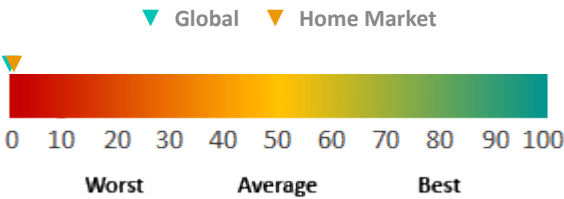
*The Tax Gap Score is based on the estimated tax gap, country revenue transparency, foreign revenues, controversies and whether a company is classified as a tax-favored structure such as a REIT. The score is derived on a 0-10 scale and can be used for cross-company comparisons but does not contribute to a company's overall ESG Rating.

METHODOLOGY NOTE

Companies are evaluated on their estimated corporate tax gap (i.e. gap between estimated effective tax rate and estimated corporate income tax rate) and their involvement in tax-related controversies.

*[For symbols and terms used in this report, refer to the Glossary section at the end of the report]

TAX TRANSPARENCY VS.



TAX CONTROVERSIES

Controversy Cases					
Category	Assessment	Headline	Status	Last Updated	Deduction
Tax Transparency	Moderate	Ireland: EUR 218 million in backdated tax settlement and interest charges	Concluded	November 2021	-0.8
	Moderate	France: Investigation over Allegations of Tax Avoidance	Ongoing	September 2019	
	Moderate	Australia: AUD 482 Million Settlement on Australian Taxation Office Tax Audit over Alleged Unpaid Back Taxes	Ongoing	May 2019	
	Moderate	Japan: Allegations of Failure to Pay JPY 3.5 Billion in Taxes from Ad Revenue	Ongoing	January 2019	
	Minor	Google: Court ruled in favor on appeal over EUR 3 million penalty imposed by Hungary over alleged nonpayment of advertising sales tax	Concluded	March 2020	

TAX CONTROVERSIES SCORING DEDUCTION KEY

Involvement in tax controversies	Estimated tax gap	Tax gap assessment	Deduction
Yes	Below 5%	Low	-0.80
	5-10%	Moderate	-1.40
	Above 10%	High	-2.00
No	Below 5%	Low	0.00
	5-10%	Moderate	0.00
	Above 10%	High	0.00

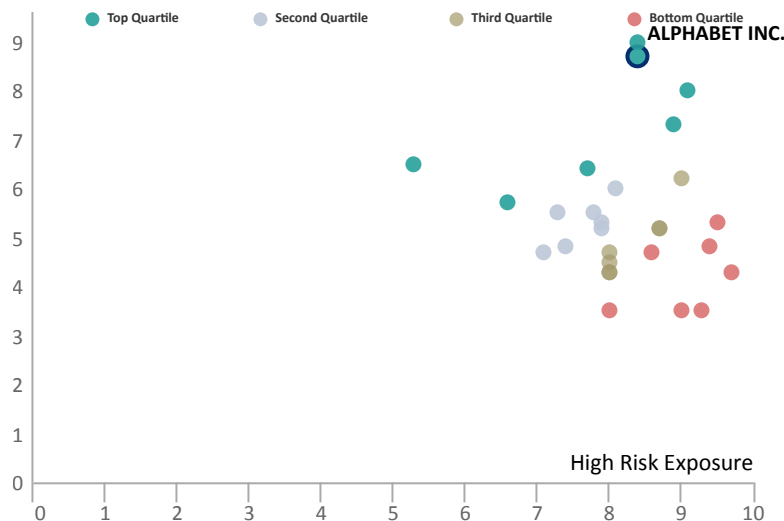
Tax related controversies are not considered for companies in Real Estate Management services or Mortgage REITs industries. Tax gap assessment is effectively low for companies with less than 5% of total revenue categorized as foreign.



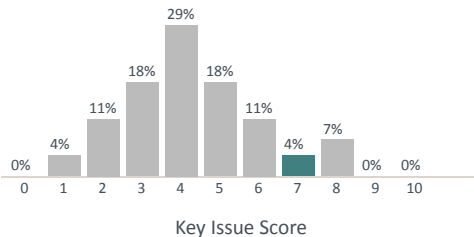
Privacy & Data Security

Score	Change (since rating)	Quartile	Weight	As of
7.3	0.0	●●●●	26.0%	Jun 28, 2021

Strong Risk Management



KEY ISSUE SCORE DISTRIBUTION*



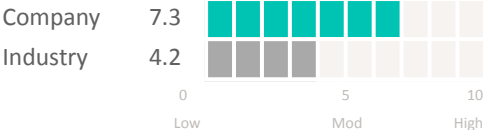
TOP 5 INDUSTRY LEADERS

INFO EDGE (INDIA) LIMITED	8.2
NAVER Corporation	7.6
ALPHABET INC.	7.3
Z Holdings Corporation	6.1
ZoomInfo Technologies Inc	5.9

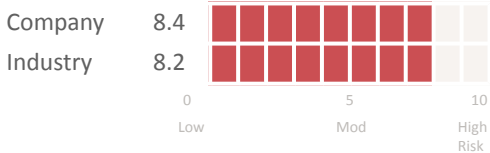
BOTTOM 5 INDUSTRY LAGGARDS

KUAISHOU TECHNOLOGY	2.5
AUTO TRADER GROUP PLC	2.4
Scout24 SE	1.6
PINTEREST, INC.	1.5
IAC/INTERACTIVECORP.	1.2

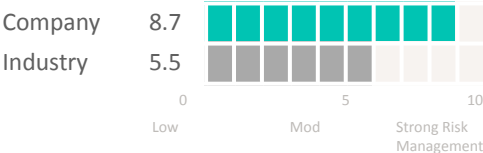
KEY ISSUE ASSESSMENT



RISK EXPOSURE ASSESSMENT



RISK MANAGEMENT ASSESSMENT



Drivers of Risk Exposure



Drivers of Risk Management



Business Locations



Controversy Deduction

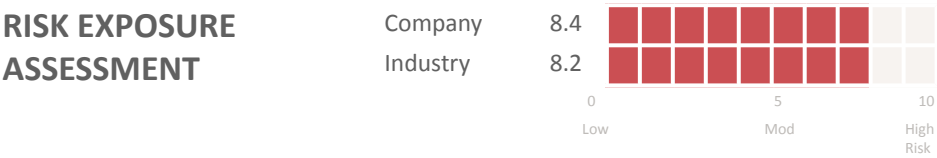


METHODOLOGY NOTE

Companies are evaluated on the amount of personal data they collect, their exposure to evolving or increasing privacy regulations, their vulnerability to potential data breaches, and their systems for protecting personal data.

* [For symbols and terms used in this report, refer to the Glossary section at the end of the report]

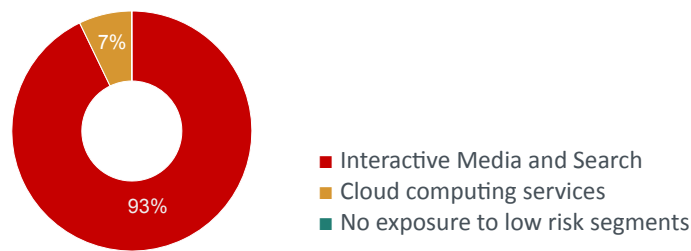
EXPOSURE



Key Drivers of Risk Exposure

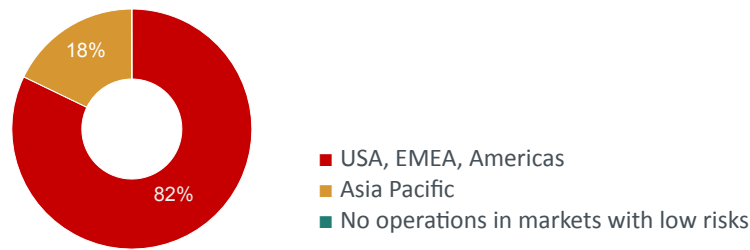
Exposure to: Risk of compliance cost increase or reputational damage from data breaches or controversial use of personal data

Business Types : Percentage of revenue derived from business segments that · require collection and/or handling of sensitive personal data · have witnessed high cost and frequency of data breaches



Source: Cost of Data Breach Report (Ponemon Institute); Data Breach Investigations Report (Verizon); Refinitiv; MSCI ESG Research; company disclosure

Business Locations : Percentage of operations in countries with strengthening or evolving data and privacy regulations, with high cost of data breaches



Source: Cost of Data Breach Report (Ponemon Institute); Refinitiv; MSCI ESG Research; company disclosure

MANAGEMENT



Description	Company Practice	Best Practice	Practices Score ²			
Practices - Operations						
Scope of company's publicly available data protection policy	Policy governs selected business lines/subsidiaries	Policy governs all relevant business lines/subsidiaries	-	LOW	MID	TOP
Rights provided to individuals regarding the control of their data	Right of access, rectification and deletion of individuals' data	Right of access, rectification and deletion of individuals' data	-	LOW	MID	TOP
Information Security Policies and Systems audit frequency	External independent audits are conducted at least once every two years	External independent audits are conducted at least once every two years	-	LOW	MID	TOP
Company's executive body responsible for: Privacy and Data security	Special task force or risk officer	Board-level committee	-	LOW	MID	TOP

Practices - Employees

Scope of employee training on data security and/or privacy-related risks & procedures	Training is provided to all employees, including contractors	Training is provided to all employees, including contractors	-	LOW	MID	TOP
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Data Security Investments

Year	Investment in Data Security (in USD mn)	Total Sales (in USD mn)	Investment in Data Security / Total Revenue	Investment in Data Security / Total Asset	Details (e.g. type of investments, technology adopted, etc.)
2016	75	90,272	0.08%		Google Capital Leads \$75 Million Investment in Pindrop Security for Phone Fraud Startup
2015	100	74,989	0.13%		Venture capital investment in Crowdstrike, a hacker identification company

CONTROVERSIES

All controversies are assessed as part of the annual review of a company's ESG rating. MSCI ESG Research tracks controversies for all companies on a regular basis. The Alphabet has been flagged for involvement in controversial events or alleged misconduct.

Controversy Cases

Assessment	Headline	Status	Last Updated
Moderate	European Union: Lawsuits, complaints, and penalties over alleged GDPR violations	Ongoing	December 2021
Moderate	Italy: EUR 10 million penalty for alleged improper use of consumers' data for commercial purposes; appeal pending	Ongoing	December 2021
Moderate	Privacy concerns over alleged settings bypass on Apple devices' browsers	Ongoing	November 2021
Moderate	US: Regulator inquiry on potential data surveillance and other consumer protection risks in payment systems	Ongoing	November 2021
Moderate	Google Plus: USD 7.5 million proposed settlement on lawsuits filed after disclosure of account vulnerability millions of users; social network shut down	Ongoing	October 2021
Moderate	Australia and United States: ACCC and individual lawsuits claiming location tracking without consent	Ongoing	July 2021
Moderate	United States: Lawsuit over alleged scanning of e-mails in Gmail platform for targeted advertising	Ongoing	June 2021

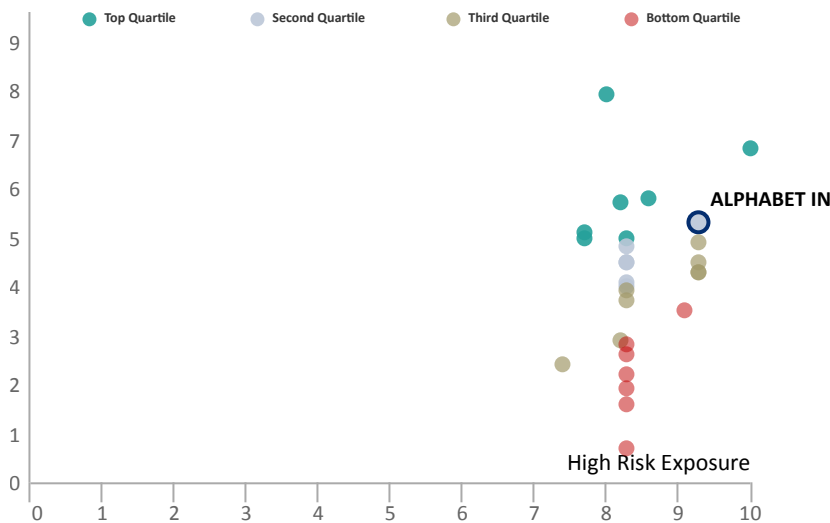
Assessment	Headline	Status	Last Updated
Moderate	Chicago, United States: Potential class action lawsuit over alleged use of identifiable patient data without permission	Ongoing	June 2021
Moderate	France: EUR 100 million penalty over alleged unauthorized use of advertising cookies on website	Concluded	January 2021
Moderate	United Kingdom: Class action lawsuit over alleged breach of children's privacy in video platform	Ongoing	September 2020
Moderate	Australia: Investigation into alleged misrepresentation of use of personal information related to internet activity	Ongoing	August 2020
Moderate	Europe, Google Inc: Complaints about Alleged Privacy Violation in Real-time Bidding	Ongoing	August 2019
Moderate	Ireland: DPC Investigation for Alleged Violation of EU Privacy Rules	Ongoing	May 2019
Moderate	United Kingdom: Investigation into Alleged Privacy Law Violations	Ongoing	February 2019
Minor	New Mexico, US: State attorney general's lawsuit over alleged collection of school children data without parental consent; settlement reached	Concluded	December 2021
Minor	Uzbekistan: YouTube access speed restricted over noncompliance with personal data storage laws; restrictions lifted	Concluded	December 2021
Minor	UK: Proposed class action over alleged unauthorized sharing of patients' medical data in a DeepMind-NHS project deal	Ongoing	December 2021
Minor	California, US: Purported class action over alleged excessive data usage and unauthorized transmission of mobile users' data; lawsuit dismissed	Concluded	December 2021
Minor	Report alleging Google Chrome web browser collected and shared mobile device users' motion sensor data without consumers' knowledge	Ongoing	November 2021
Minor	Austrian NGO criticism for alleged refusal to allow for users to easily opt-out of personal advertisement cookies	Ongoing	November 2021
Minor	United States: Lawsuits alleging violation of the Biometric Information Privacy Act (BIPA) from facial recognition technology in Google Photos	Ongoing	October 2021
Minor	California, Google Home: Class action lawsuit for allegedly recording, retrieving, and processing audio through voice-activated products without being activated by users	Ongoing	October 2021
Minor	United States: Proposed class action lawsuits for allegedly promoting and generating profit from illegal gambling features of mobile games and other casino-style games	Ongoing	October 2021
Minor	Moscow, Russia: Order by court to pay RUB 3 million of penalty for alleged refusal to move personal data of Russian users to servers in Russia	Ongoing	August 2021
Minor	California, United States: Putative class action lawsuit over alleged sale of customers' personal information in advertisement auctions	Ongoing	July 2021
Minor	California, United States: Proposed class action lawsuit over alleged unauthorized disclosure of users' information through Real-Time Bidding system	Ongoing	July 2021
Minor	California, US: Purported class actions over alleged tracking of web and app usage despite use of private settings	Ongoing	July 2021
Minor	France: NGO complaint over alleged unauthorized use of unique identifiers for targeted advertising on Android phones	Ongoing	June 2021
Minor	California, United States: Proposed class action lawsuit over user data collection for competitive advantages	Ongoing	June 2021
Minor	United States: Class action over alleged unauthorized access of contact tracing data obtained through the Google-Apple Exposure Notification System	Ongoing	May 2021
Minor	India: Supreme Court petitions over data security concerns related to unified payments interface	Ongoing	February 2021
Minor	Illinois, United States: Customer appealed to proposed class action lawsuit over alleged collection of demographic data on partnered medical application	Ongoing	January 2021



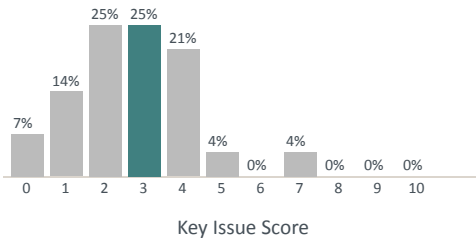
Human Capital
Development

Score	Change (since rating)	Quartile	Weight	As of
3.0	0.0	●●●	21.0%	Jun 28, 2021

Strong Risk Management



KEY ISSUE SCORE DISTRIBUTION*



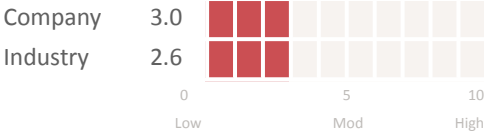
TOP 5 INDUSTRY LEADERS

Z Holdings Corporation	6.9
NAVER Corporation	4.5
Kakao Corp.	4.4
VK Company Limited	4.3
TENCENT HOLDINGS LIMITED	4.2

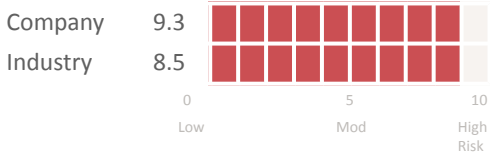
BOTTOM 5 INDUSTRY LAGGARDS

Hello Group Inc.	1.3
Kakaku.com Inc	0.9
FIVERR INTERNATIONAL LTD	0.6
Autohome Inc	0.3
MATCH GROUP, INC.	0.0

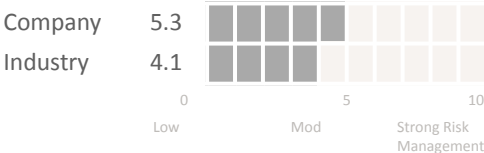
KEY ISSUE
ASSESSMENT



RISK EXPOSURE ASSESSMENT



RISK MANAGEMENT ASSESSMENT



Drivers of Risk Exposure



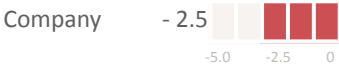
Drivers of Risk Management



Performance Score



Controversy Deduction

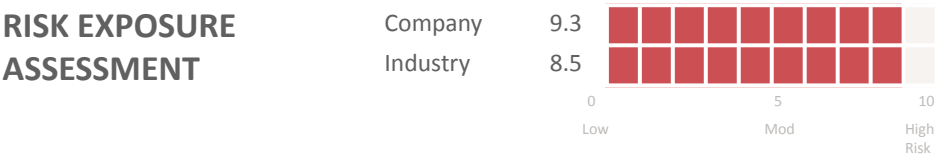


METHODOLOGY NOTE

Companies are evaluated on their workforce talent requirements and their ability to attract, retain, and develop a highly skilled workforce.

* [For symbols and terms used in this report, refer to the Glossary section at the end of the report]

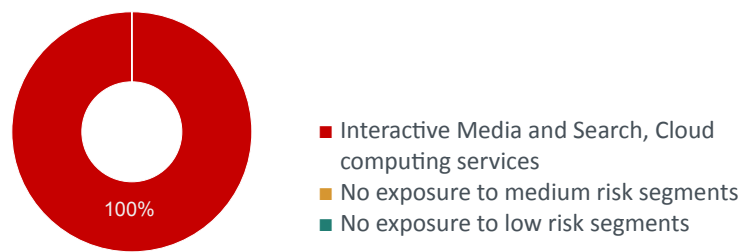
EXPOSURE



Key Drivers of Risk Exposure

Exposure to: Risk of increased turnover and associated costs of rehiring, loss of intellectual and human capital through attrition, reduced ability to attract talent

Business Types : Percentage of operations in business segments with high/moderate/low levels of employee qualification needs and compensation per employee

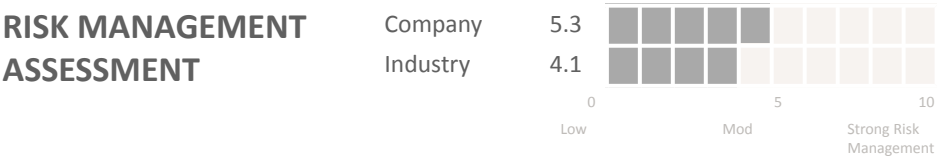


Source: Employment Projections Program (US Bureau of Labor Statistics); Occupational Employment Statistics (US Bureau of Labor Statistics); Refinitiv; MSCI ESG Research; company disclosure

Layoffs and Restructuring Events

Major merger or acquisition in the last three years (affecting large proportion of staff):	Yes
Major layoffs in the last three years (affecting 10% of staff or over 1,000 employees):	No Evidence

MANAGEMENT



Description	Company Practice	Best Practice	Practices Score ²
Practices			

Scope of support for degree programs and certifications	General statements on training and development	Programs covering all employees (including part-time and contractors)	-	LOW	MID	TOP
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Strategy

Extent of grievance reporting or escalation procedures	Formal grievance escalation/reporting (not confidential or confidentiality unknown)	Formal grievance escalation/reporting (confidential)	-	LOW	MID	TOP
Engagement surveys to monitor employee satisfaction	Surveys conducted annually	Surveys conducted annually	-	LOW	MID	TOP

Talent pipeline development strategy

Formal talent pipeline development strategy (forecasts hiring needs, actively develops new pools of talent)	Yes	Yes	-	LOW		TOP
Graduate traineeship/apprenticeship program	Yes	Yes	-	LOW		TOP
Partners with educational institutions to develop or deliver joint training programs for staff	Yes	Yes	-	LOW		TOP

Programs & Initiatives

Scope of employee stock ownership plan (ESOP) or employee stock purchase plan (ESPP)	Sector-leading number of employees eligible for ESOP and/or ESPP	Sector-leading number of employees eligible for ESOP and/or ESPP	-	LOW	MID	TOP
Non-salary benefits and work/life balance	Benefits cover selected employees	Benefits cover all employees	-	LOW	MID	TOP
Regular performance appraisals and feedback processes	Yes	Sector leading programs	-	LOW	MID	TOP
Job-specific development training programs	Yes	Sector leading programs	-	LOW	MID	TOP
Evidence of managerial/ leadership development training	Programs focusing on internal upward mobility through training and development	Comprehensive succession planning & development programs at multiple levels	-	LOW	MID	TOP

Training

Year (YYYY)	Percentage of employees receiving training	Annual training hours per employee
2020		
2019		

Year (YYYY)	Percentage of employees receiving training	Annual training hours per employee
2018		

Performance

External recognition as employer of choice (last three years)

External recognition - details

Recognized as top employer on credible external list
2020:

Forbes - World's Best Employers 2020

2019

World's Best Employers 2019-Forbes

Top Regarded Companies 2019-Forbes

2018:

Forbes Best place to work in 2018

2017

- Ranked #1 on 100 Best Companies to Work For in 2017

- Ranked #2 America's Best Employers by Forbes

2016: No. 1 place to work for the seventh time in 10 years

2014: #1 on Fortune Magazine's list of 100 Best
Companies to Work For.

Workforce Diversity

Year (YYYY)	Annual employee turnover	Profit per employee (USD '000)	Percentage of women in executive management	Details
2019		288.84	26.70%	
2018		311.18	33.30%	
2017		158.05	14.30%	Net Income in USD million=12,662(10 K 2019 pg 26) Employees=80110
2016			12.90%	4 of the 31 executive/senior officials are women
2015			16.00%	4 of the 25 executive/senior officials are women

Year (YYYY)	Annual employee turnover	Profit per employee (USD '000)	Percentage of women in executive management	Details
2014		269.50	0.00%	
2013		270.50	0.00%	

CONTROVERSIES

All controversies are assessed as part of the annual review of a company's ESG rating. MSCI ESG Research tracks controversies for all companies on a regular basis. The Alphabet has been flagged for involvement in controversial events or alleged misconduct.

Controversy Cases

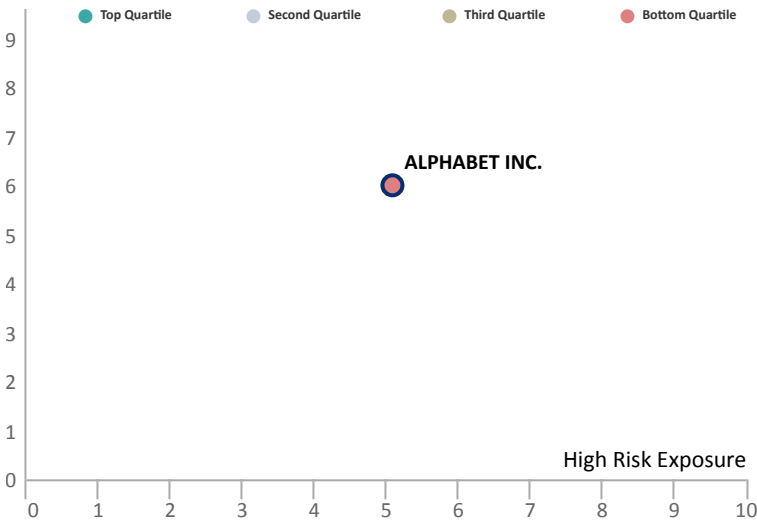
Assessment	Headline	Status	Last Updated
Severe	US: USD 3.8 million settlement over alleged pay and hiring discrimination against female employees; certified class action pending	Ongoing	August 2021
Moderate	United States: NLRB complaint over alleged termination of employees who organized protest	Ongoing	December 2021
Moderate	Iowa, US: Temporary workers' weekly program resumed following reports of potential organized labor action	Concluded	December 2021
Moderate	South Carolina, US: Lawsuit over alleged wrongful termination of temporary worker	Ongoing	December 2021
Moderate	Contractors demand better pay and benefits	Ongoing	November 2021
Moderate	United States: Regulatory investigation into labor practices following alleged retaliation against employees involved in labor organizing activities	Ongoing	November 2021
Moderate	South Carolina: Settlement to lawsuit filed by worker union on behalf of contractor over alleged wrongful suspension	Concluded	May 2021
Moderate	California, United States: USD 1.5 million of settlement to proposed class action lawsuit over alleged failure to provide meal and rest breaks	Ongoing	May 2021
Moderate	Worker Sit-In Protest Due to Alleged Retaliation against Employee Participation in Organized Strikes	Ongoing	May 2019
Minor	California, United States: Employee filed lawsuit over alleged pregnancy discrimination and retaliation	Ongoing	November 2021
Minor	USD 310 settlement over protests and demands for reform by 20,000 employees over alleged systemic failure to fairly address sexual harassment	Concluded	June 2021



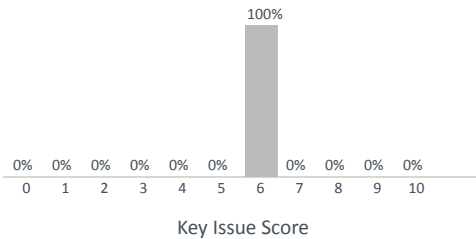
Opportunities in Clean Tech

Score	Change (since rating)	Quartile	Weight	As of
5.8	0.0	<div></div>	11.0%	Jun 28, 2021

Strong Risk Management



KEY ISSUE SCORE DISTRIBUTION*



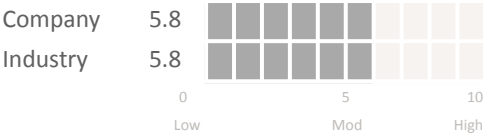
TOP 5 INDUSTRY LEADERS

ALPHABET INC.	5.8
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BOTTOM 5 INDUSTRY LAGGARDS

ALPHABET INC.	5.8
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KEY ISSUE ASSESSMENT

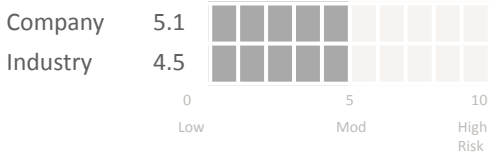


METHODOLOGY NOTE

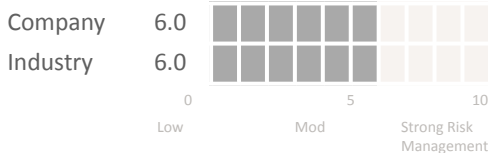
Companies are evaluated on their clean tech innovation capacity, strategic development initiatives, and revenue generated from clean technologies.

* [For symbols and terms used in this report, refer to the Glossary section at the end of the report]

RISK EXPOSURE ASSESSMENT



RISK MANAGEMENT ASSESSMENT



Drivers of Risk Exposure



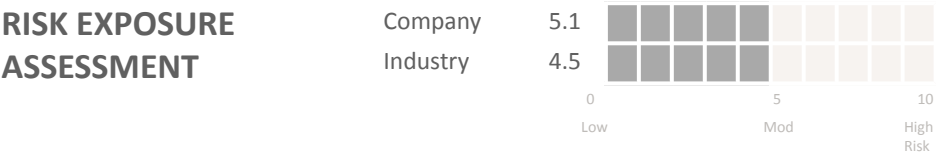
Drivers of Risk Management



Performance Score



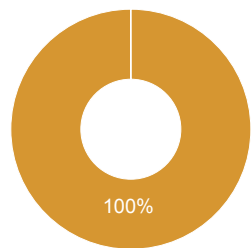
EXPOSURE



Key Drivers of Risk Exposure

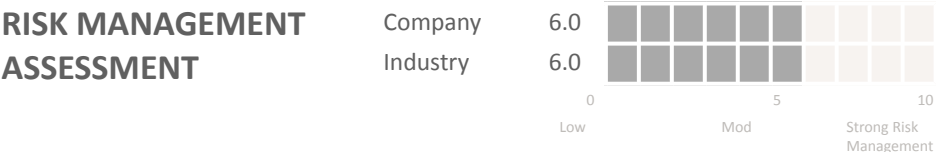
Exposure to: Opportunity for business growth from capturing demand changes and enjoying early mover advantage or regulatory incentives

Business Types : Percentage of operations in business segments with high growth potential in clean tech markets



- No exposure to high opportunity segments
 - Interactive Media and Search, Cloud computing services
 - No exposure to low opportunity segments
- Source: MSCI ESG Research; Refinitiv; company disclosure

MANAGEMENT



Description	Company Practice	Best Practice	Practices Score ²
Strategy			
Strategic focus on clean technology development	Some initiatives in cleantech innovation	Cleantech innovation is the core strategy	- LOW MID TOP
Targets to increase investment in clean tech	Yes	Yes	- LOW TOP

Programs & Initiatives

Number of patent families	1,023
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R&D Expense

Year	R&D (USD million)	R&D / Sales ratio
2020	27,573	15.11%
2019	26,018	16.07%
2018	21,419	15.65%
2017	16,625	15.00%
2016	13,948	15.45%
2015	12,282	16.38%
2014	9,832	14.90%
2013	7,910	13.22%
2012	6,793	13.54%
2011	5,162	13.63%
2010	3,762	12.92%
2009	2,843.03	12.19%
2008	2,793.20	12.82%
2007	2,120	

Performance

Score: nature of involvement in clean tech activities	8.00
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Renewables

Involvement in generation or development of wind power capacity	Non-core involvement (revenues <20%)
Involvement in generation or development of solar power capacity	Non-core involvement (revenues <20%)

Power Management

Involvement in developing of smart grid	Non-core involvement (revenues <20%)
Involvement in developing energy solutions for household products	Non-core involvement (revenues <20%)

Industrial Operations & Automation

Involvement in developing or distributing optimization technologies & systems	Core business (revenues 20-50%)
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Reuse & Recycling

Involvement in development and distribution of reused products or products using recycled waste	Non-core involvement (revenues <20%)
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Air Quality

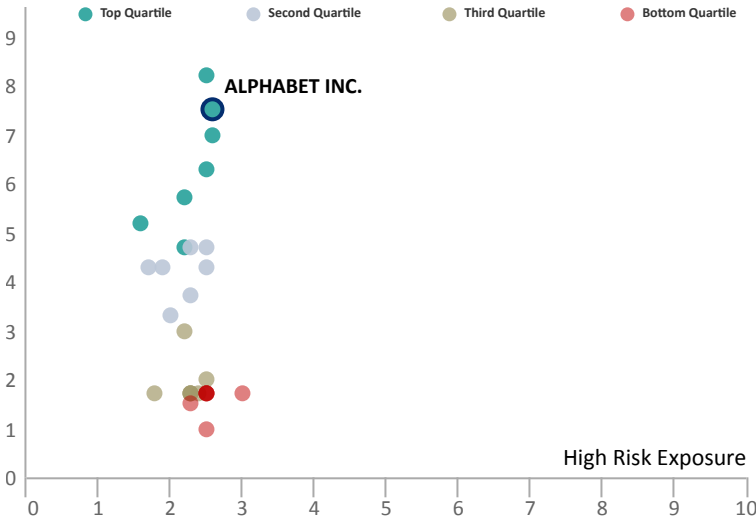
Involvement in developing or distributing environmental information technology	Non-core involvement (revenues <20%)
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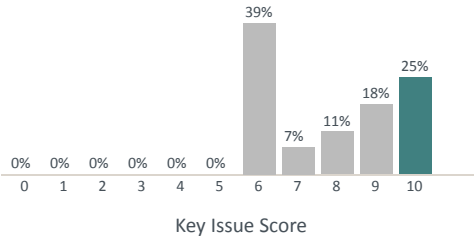
Carbon Emissions

Score	Change (since rating)	Quartile	Weight	As of
10.0	0.0	●●●●	5.0%	Jun 28, 2021

Strong Risk Management



KEY ISSUE SCORE DISTRIBUTION*



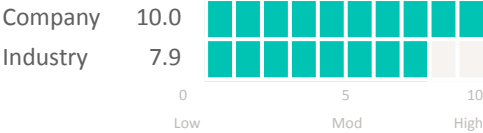
TOP 5 INDUSTRY LEADERS

ALPHABET INC.	10.0
META PLATFORMS, INC.	10.0
NAVER Corporation	10.0
SNAP INC.	10.0
Scout24 SE	10.0

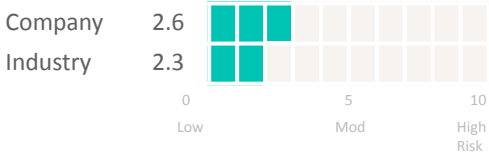
BOTTOM 5 INDUSTRY LAGGARDS

MATCH GROUP, INC.	6.2
PINTEREST, INC.	6.2
ZoomInfo Technologies Inc	6.2
Yandex N.V.	5.7
TWITTER, INC.	5.5

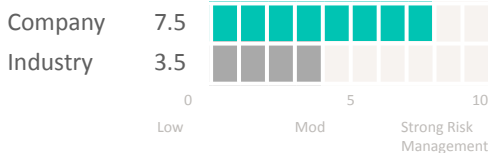
KEY ISSUE ASSESSMENT



RISK EXPOSURE ASSESSMENT



RISK MANAGEMENT ASSESSMENT



Drivers of Risk Exposure



Drivers of Risk Management



Business Types



Performance Score



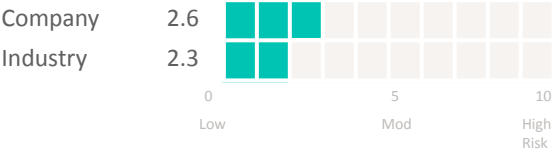
METHODOLOGY NOTE

Companies are evaluated on the carbon intensity of their operations and their efforts to manage climate-related risks and opportunities.

* [For symbols and terms used in this report, refer to the Glossary section at the end of the report]

EXPOSURE

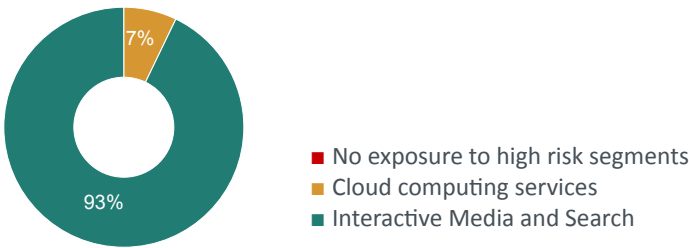
RISK EXPOSURE
ASSESSMENT



Key Drivers of Risk Exposure

Exposure to: Risks of having to pay increased compliance costs tied to carbon emissions regulations

Business Types : Percentage of operations in business segments with high/moderate/low carbon intensity



Source: IERS' Comprehensive Environmental Data Archive (CEDA); Air Emissions Accounts (Eurostat); Refinitiv; MSCI ESG Research; company disclosure

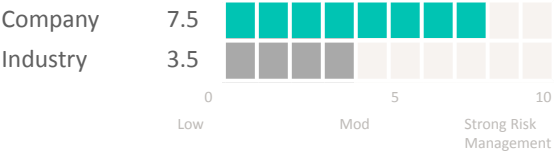
Business Locations : Percentage of operations in countries with strengthening or pending carbon emissions regulation



Source: MSCI ESG Research; Refinitiv; company disclosure

MANAGEMENT

RISK MANAGEMENT
ASSESSMENT



Description	Company Practice	Best Practice	Practices Score ²			
Targets						
Aggressiveness of the company's reduction target in the context of its current performance	Company sets GHG reduction targets	Aggressive target with a low base	-	LOW	MID	TOP
Demonstrated track record of achieving its carbon reduction targets	On pace to achieve current reduction target	Previously set & met targets	-	LOW	MID	TOP

Carbon Improvement Targets

Baseline Year	Target Year	Target Description	Target Reduction (%)
2018	2018	Scope 1+2 (market-based) +3 (upstream) - Every year, a goal of being carbon neutral is set	100.00%
2018	2019	(This target is Abs1 in Alphabet's 2020 CDP Response.) Every year, we have a goal of being carbon neutral. As of December 31, 2019, we reached carbon neutrality for 100% of our FY2019 operational emissions, which represent Scope 1 + Scope 2 (market-based) + Scope 3 (business travel, candidate travel, and employee commuting). This target, Abs1, covers Scope 1 + Scope 2 (market-based) + Scope 3 (business travel, candidate travel, and employee commuting).	100.00%
2015	2040	Scope 1 +2 (market-based)	100.00%
2015	2025	Scope 1 +2 (market-based)	100.00%
2014	2015	Absolute CO2 reduction from energy efficiency	0.01%
2012	2014	we have committed to a 20% reduction in Scope 1 and 2 emissions across 12 of our northern California office buildings normalized per head count in those buildings	20.00%
2011	2012	Scope 3 Intensity: tCO2e per FTE employee	3.00%
2011	2025	Metric tonnes CO2e per unit FTE employee (Google's NYC office only)	50.00%
2010	2010	Intensity: 5% of Scope 2 emissions (t CO2e per FTE employee)	11.00%

Mitigation

Strength of Greenhouse Gas Mitigation Strategy (0-10 Score, 0=worst, 10=best) 10.00

Programs or actions to reduce the emissions intensity of core operations

Use of cleaner sources of energy	Aggressive efforts	Aggressive efforts	-	LOW	MID	TOP
Energy consumption management and operational efficiency enhancements	Aggressive efforts	Aggressive efforts	-	LOW	MID	TOP
CDP disclosure	Yes	Yes	-	LOW		TOP
Other initiatives (e.g. carbon offsets)	Some efforts	Aggressive efforts	-	LOW	MID	TOP

Performance

Carbon Emissions Performance Relative to Peers (0-10 Score, 0=worst, 10=best) 5.00

GHG Emissions - metric tons CO2e

Year	Scope 1 Disclosed	Scope 1 Estimate Key	Scope 2 Disclosed	Scope 2 Estimate Key	Scope 1+2 Disclosed	Scope 3 (upstream)	Scope 3 (downstream)	Scope 3 (undefined)	Scope 1 Estimated	Scope 2 Estimated	Scope 1+2 Estimated	Scope 1+2 Estimate Key	GHG Emissions Details
2019	66,686.0	Reported	794,267.0	Reported	860,953.0	11,669,000.0						Reported	
2018	63,521.0	Reported	684,236.0	Reported	747,757.0	14,279,467.0						Reported	
2017	66,549.0	Reported	509,334.0	Reported	575,883.0	2,719,023.0						Reported	
2016	66,218.0	Reported	1,518,643.0	Reported	1,584,861.0	328,104.0	964,163.0					Reported	
2015	66,991.0	Reported	1,384,427.0	Reported	1,451,418.0	313,456.0	921,226.0					Reported	
2014	51,802.0	Reported	1,460,762.0	Reported	1,512,564.0	246,694.0	734,089.0					Reported	
2013	41,373.0	Reported	1,245,253.0	Reported	1,286,626.0	190,575.0	288,813.0					Reported	
2012	37,187.0	Reported	1,149,988.0	Reported	1,187,175.0	171,505.0	161,107.0					Reported	
2011	29,563.0	Reported	1,439,703.0	Reported	1,469,266.0		208,157.0					Reported	
2010	11,126.0	Reported	1,226,350.0	Reported	1,237,476.0	207,065.0						Reported	
2009		E.CSI		E.CSI					13,336.0	747,041.0	760,377.0	E.CSI	Dec-2015 Estimation Update
2008		E.CSI		E.CSI					12,461.0	698,030.0	710,491.0	E.CSI	Dec-2015 Estimation Update

GHG Emissions Intensity - metric tons CO2e / USD million sales

Year	GHG Intensity	GHG Intensity Details	GHG Intensity - Reported	GHG Intensity - Reported Details
2019	5.30		7.96	tCO2 e/FTE
2018	5.50		8.40	tCO2 e/FTE
2017	5.20		7.60	tCO2 e/FTE
2016	17.60		23.40	tCO2 e/FTE
2015	19.40		25.00	tCO2 e/FTE
2014	22.90		31.00	tCO2 e/FTE
2013	21.50		31.90	tCO2 e/FTE
2012	23.70		33.80	tCO2 e/FTE
2011	38.80		51.90	tCO2 e/FTE
2010	42.50			
2009	32.60			
2008	32.60			

Energy Consumption

Year	Total energy consumption (reported)	Total energy consumption (MWh)	Energy intensity (reported)	Reported intensity details	Total energy consumption intensity	Energy consumption details
2019	12,749,458	12,749,458			78.77	Total energy consumption
2018	10,572,485	10,572,485			77.27	Total energy consumption
2017	8,029,409	8,029,409			72.43	Fuel ,steam electricity
2016	6,513,719	6,513,719			72.16	total energy consumption
2015	5,533,433	5,533,433			73.79	Electricity + Fuels

Year	Total energy consumption (reported)	Total energy consumption (MWh)	Energy intensity (reported)	Reported intensity details	Total energy consumption intensity	Energy consumption details
2014	4,702,387	4,702,387			71.25	Electricity + Fuels + Steam
2013	3,970,438	3,970,438			66.37	energy figure includes electricity and fuel; 1.12 PUE
2012	3,532,225	3,532,225			70.40	energy figure includes electricity and fuel; 1.12 PUE
2011	2,863,853	2,863,853			75.64	energy figure includes electricity and fuel; 1.14 PUE
2010	2,367,824	2,367,824			81.32	energy figure includes electricity and fuel; 1.16 PUE

APPENDIX

CONTENTS

ISSUER COMMUNICATION

ADDITIONAL ESG ISSUES

CONTROVERSIES DETAIL

ADDITIONAL CORPORATE GOVERNANCE CONTENT

KEY METRIC & SCORE CHANGES

CEO PAY CHARTS

DIRECTOR VOTES

SHAREHOLDER/MANAGEMENT PROPOSALS

GOVERNANCE STANDARDS

DIRECTOR PROFILES

ISSUER COMMUNICATION SUMMARY

COMPANY COMMUNICATION PAST 15 MONTHS

Direction	Method	Category	Research Product	Date
Outgoing	E-mail	Other	ESG Ratings	Dec 16, 2021
Outgoing	E-mail	Other	ESG Ratings	Dec 16, 2021
Outgoing	E-mail	Data Update Notification	ESG GovernanceMetrics	Oct 08, 2021
Outgoing	E-mail	Feedback Notice	ESG GovernanceMetrics	Oct 08, 2021
Outgoing	E-mail	Other	ESG Ratings	Sep 21, 2021
Outgoing	E-mail	Other	ESG Ratings	Sep 21, 2021
Outgoing	E-mail	Other	ESG Ratings	Sep 21, 2021
Incoming	Issuer Communication Portal	Data Review - Feedback Provided	ESG Ratings	Sep 14, 2021
Incoming	Issuer Communication Portal	Data Review - Feedback Provided	ESG Ratings	Sep 14, 2021
Outgoing	E-mail	Updated ESG Rating	ESG Ratings	Jul 02, 2021
Outgoing	E-mail	Updated ESG Rating	ESG Ratings	Jul 02, 2021
Outgoing	E-mail	Schedule query	ESG Ratings	May 18, 2021
Incoming	E-mail	Schedule query	ESG Ratings	May 18, 2021
Outgoing	E-mail	Other	ESG Ratings	May 12, 2021
Outgoing	E-mail	Updated ESG Rating	ESG Ratings	May 07, 2021
Outgoing	E-mail	Updated ESG Rating	ESG Ratings	May 07, 2021
Outgoing	E-mail	Data Review - Alert	ESG Ratings	Nov 09, 2020

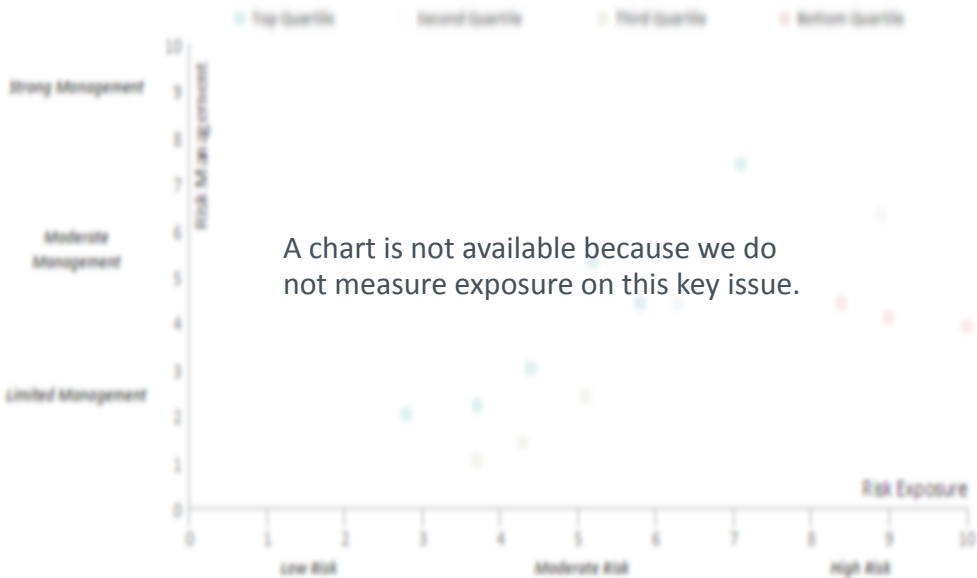
LEGEND

Direction	Category
Outgoing: MSCI ESG Research contacts issuer.	Data Review - Alert: Notification of pending annual update of ESG Rating, and invitation to engage MSCI.
Incoming: Query by corporate issuer.	Data Review - Report: MSCI ESG Research delivers report of updated ESG data
	Data Review - Feedback Provided: Feedback provided to MSCI ESG Research.
	Request for Information: Issuer inquiries; MSCI ESG Research queries.
	Published Report Sent: MSCI ESG Research delivers issuers' ESG product report that is posted to the MSCI ESG Manager platform.
	Other: Issuer notified of custom projects; Miscellaneous queries.



Anticompetitive Practices

Score	Change (since rating)	Quartile	Weight	As of
3.7	0.0	N/A		Jun 28, 2021



KEY ISSUE ASSESSMENT

Company	3.7	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Industry	n/a	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		<div>0510</div> <div>LowModHigh</div>

RISK MANAGEMENT ASSESSMENT

Company	3.7	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Industry		<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		<div>0510</div> <div>LowModStrong Risk Management</div>

Drivers of Risk Management

Controversy Deduction

Company	- 1.3	<div><div></div><div></div><div></div><div></div><div></div></div>
		<div>-5.0-2.50</div>

TOP 5 INDUSTRY LEADERS

ADEVINTA ASA	5.0
AUTO TRADER GROUP PLC	5.0
Autohome Inc	5.0
Hello Group Inc.	5.0
IAC/INTERACTIVECORP.	5.0

BOTTOM 5 INDUSTRY LAGGARDS

TENCENT HOLDINGS LIMITED	4.2
Yandex N.V.	4.2
Z Holdings Corporation	4.2
ALPHABET INC.	3.7
META PLATFORMS, INC.	3.7

METHODOLOGY NOTE

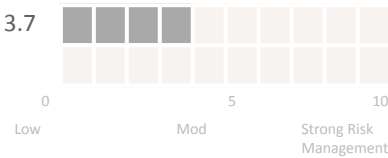
This issue evaluates the extent to which companies may face regulatory risks relating to anti-competitive practices. Companies successfully avoiding incident score "5", while companies that have faced controversies in the last three years score lower, based on the severity and type of controversy. This Key Issue is discontinued effective November 2020.

*[For symbols and terms used in this report, refer to the Glossary section at the end of the report]

MANAGEMENT

RISK MANAGEMENT
ASSESSMENTCompany
Industry

3.7



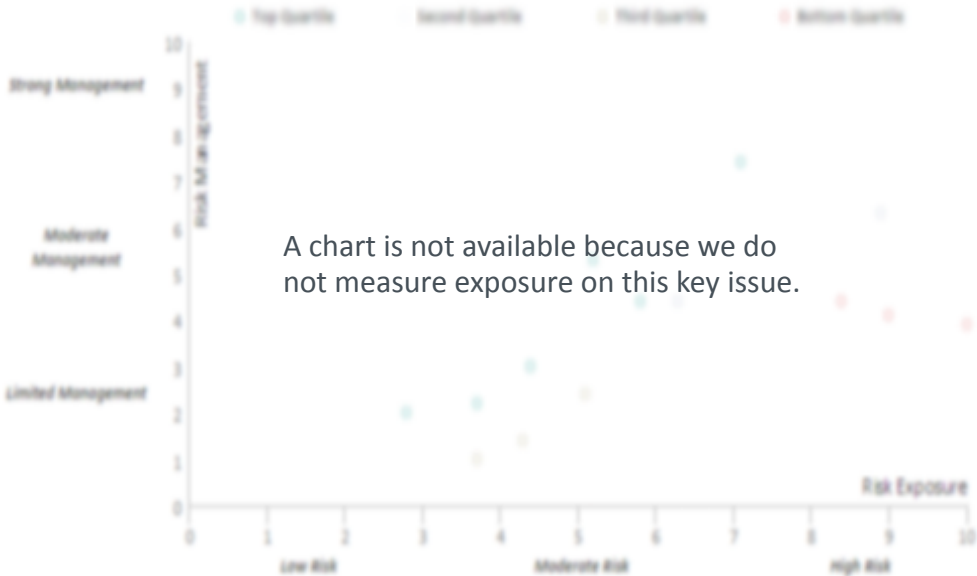
Controversy Cases

Assessment	Headline	Status	Last Updated
Moderate	Australia: Regulatory investigation on alleged anticompetitive conduct in the advertising technology sector	Ongoing	December 2021
Moderate	U.K.: CMA investigation into alleged duopoly with Apple in mobile ecosystems	Ongoing	December 2021
Moderate	EC antitrust investigation relating to digital advertising technology services	Ongoing	December 2021
Moderate	France: EUR 500 million of FCA penalty over alleged failure to comply with temporary orders to compensate news publishers	Ongoing	November 2021
Moderate	EUR 2.4 billion penalty over allegations of anti-competitive practices related to online search results	Concluded	November 2021
Moderate	United States: 14 states filed lawsuit over alleged anticompetitive business practices	Ongoing	November 2021
Moderate	Canada: Competition Bureau investigation relating to online advertising business on YouTube	Ongoing	November 2021
Moderate	Italy: USD 120 million penalty for blocking third parties from its Android Auto platform; appeal filed	Ongoing	November 2021
Moderate	EU and Russian Penalty on Allegations of Abusing Dominant Market Position over Bundling of Apps in Mobile Operating System	Ongoing	October 2021
Moderate	EC antitrust inquiry into potential competition issues within the Internet of Things (IoT) sector	Ongoing	October 2021
Moderate	South Korea: KFTC penalty over anti-competitive allegations relating to in-app purchase through Google Play store	Concluded	October 2021
Moderate	Australia: Investigation over alleged anti-competitive behavior in the news media market resulting in harm to publishers and consumers	Ongoing	October 2021
Moderate	Japan: FTC antitrust investigation into dominant position in the smartphone operating system market	Ongoing	October 2021
Moderate	India: CCI investigation into alleged misuse of dominant market position by Android Operating System	Ongoing	September 2021
Moderate	France: EUR 220 million of FCA penalty for alleged abuse of dominant online advertising position	Concluded	September 2021
Moderate	United Kingdom: Regulatory investigation into proposed changes to Google Chrome browser and potential impact on digital advertising	Ongoing	August 2021
Moderate	Germany: Regulatory investigation into impact of market dominance, handling of user data, and Google News Showcase platform	Ongoing	July 2021
Moderate	Google Android: EU, Turkey, and India Regulatory Investigations into Anti-Competitive Violations Related to Mobile Platform	Ongoing	June 2021
Moderate	Ukraine: UAH 1 million of antitrust penalty over alleged failure to provide information for investigation	Ongoing	May 2021
Moderate	Turkey: Competition Authority investigation into alleged violation of search algorithm and targeted advertising	Ongoing	May 2021
Moderate	Russia: FAS filed a case over alleged abuse of dominant position in YouTube video hosting	Ongoing	May 2021
Moderate	Italy: Regulator investigation into alleged unfair commercial practices and unfair clauses in contracts	Ongoing	November 2020
Moderate	Italy: Regulator Investigation into Alleged Antitrust Abuse in Smart Device Sector	Ongoing	May 2019
Minor	South Korea: Investigation over allegation of restricting applications downloaded from other app stores from accessing Android Auto	Ongoing	May 2021



Business Ethics & Fraud

Score	Change (since rating)	Quartile	Weight	As of
3.7	0.0	N/A		Jun 28, 2021



KEY ISSUE ASSESSMENT

Company	3.7	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Industry	n/a	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		<div>0510</div> <div>LowModHigh</div>

RISK MANAGEMENT ASSESSMENT

Company	3.7	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Industry		<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		<div>0510</div> <div>LowModStrong Risk Management</div>

Drivers of Risk Management

Controversy Deduction	
Company	- 1.3
	<div><div></div><div></div><div></div><div></div><div></div></div>
	<div>-5.0-2.50</div>

TOP 5 INDUSTRY LEADERS

ADEVINTA ASA	5.0
AUTO TRADER GROUP PLC	5.0
Autohome Inc	5.0
Hello Group Inc.	5.0
IAC/INTERACTIVECORP.	5.0

BOTTOM 5 INDUSTRY LAGGARDS

PINTEREST, INC.	4.2
SNAP INC.	4.2
TWITTER, INC.	4.2
ALPHABET INC.	3.7
TENCENT HOLDINGS LIMITED	3.3

METHODOLOGY NOTE

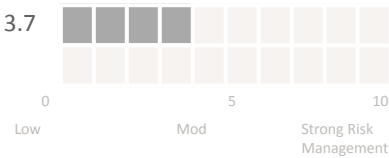
This issue evaluates the extent to which companies may face regulatory or legal risks or loss of investor confidence due to ethics issues such as fraud, executive misconduct, or insider trading. Companies successfully avoiding incident score "5", while companies that have faced controversies in the last three years score lower, based on the severity and type of controversy. This Key Issue is discontinued effective November 2020.

*[For symbols and terms used in this report, refer to the Glossary section at the end of the report]

MANAGEMENT

RISK MANAGEMENT
ASSESSMENTCompany
Industry

3.7



Controversy Cases

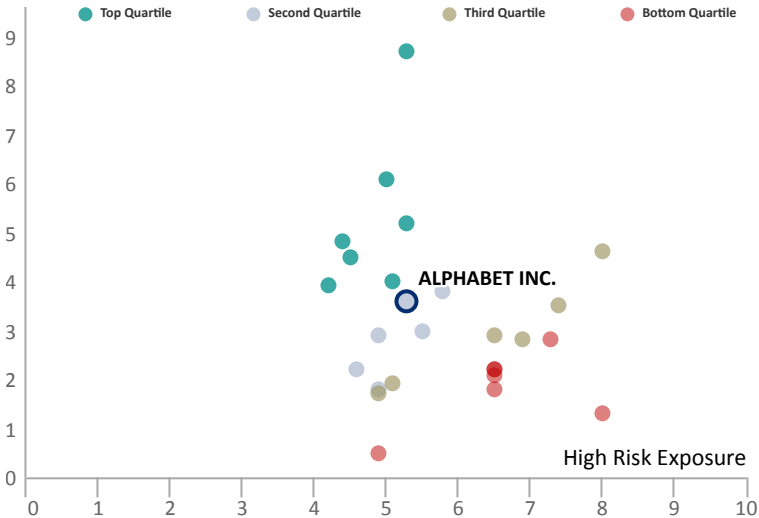
Assessment	Headline	Status	Last Updated
Moderate	Russia: RUB 200,000 FAS penalty for alleged improper advertising relating to Google AdWord system	Concluded	November 2021
Moderate	Russia: Communications regulator's criticism over failure to respond to requests to delete unlawful content	Ongoing	October 2021
Moderate	France: FCA investigation into alleged violation of revised media copyright laws; FCA ordered compensation to French publishers; Paris Court of Appeal upheld FCA's order	Ongoing	June 2021
Moderate	Criticism over possible launch of censored search engine in China	Ongoing	June 2021
Moderate	Russia: Alleged violation against the advertising law in relation to narcotic substances	Ongoing	June 2021
Moderate	U.K.: DCMS Sub-committee criticism over alleged insufficient regulation on false COVID-19 narratives	Ongoing	June 2021
Moderate	India: High Court inquiry into alleged inadequate permits for G Pay's operations	Ongoing	March 2021
Moderate	France: EUR 1.1 million penalty over alleged misleading hotel ratings in Google search results	Concluded	March 2021
Moderate	Turkey, YouTube: TRY 10 million of ICTA penalty for alleged failure to appoint compliance representative	Ongoing	November 2020
Moderate	Russia: Regulator demand to stop censorship of Russian content	Ongoing	October 2020
Moderate	Alleged improper handling of offensive and threatening content	Ongoing	June 2020
Minor	Project Nimbus: Employees' criticism against cloud service contracts with Israeli government due to potential use for surveillance of Palestinians	Ongoing	November 2021
Minor	Washington: USD 423,659.76 payment for alleged repeated violation of political ad transparency rules	Concluded	October 2021
Minor	Youtube: Criticism against blocking of Palestinian users content and academic content related to Palestine on video platform	Ongoing	May 2021
Minor	Italy: EUR 100,000 AGCOM penalty over alleged failure to remove gambling advertisement	Concluded	November 2020



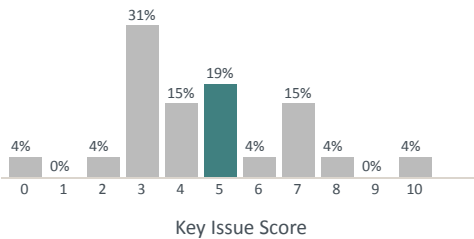
Corruption & Instability

Score	Change (since rating)	Quartile	Weight	As of
5.3	0.0	●●●	0.0%	Jun 28, 2021

Strong Risk Management



KEY ISSUE SCORE DISTRIBUTION*



TOP 5 INDUSTRY LEADERS

NAVER Corporation	10.0
TWITTER, INC.	8.1
AUTO TRADER GROUP PLC	7.4
REA GROUP LTD	7.0
META PLATFORMS, INC.	6.9

BOTTOM 5 INDUSTRY LAGGARDS

MATCH GROUP, INC.	2.6
WEIBO CORPORATION	2.6
VK Company Limited	2.5
Autohome Inc	2.3
TENCENT HOLDINGS LIMITED	0.3

METHODOLOGY NOTE

This issue evaluates the extent to which companies may face regulatory risks or lost market access due to corruption scandals or political and social instability. Scores are based on reliance on government contracts and operations in regions facing political instability or high perceived corruption levels; anti-bribery policies, programs, and transparency; and controversies. This Key Issue is discontinued effective November 2020.

This issue does not present significant risks or opportunities to the company and with the assigned weight of 0% does not contribute to the overall ESG rating for the company.

MSCI ESG Research provides additional scores on a select set of ESG Issues for all companies on the MSCI ACWI Index and MSCI ACWI IMI Index. Every company on the index receives scores for the following ESG Issues, regardless of whether they contribute to the overall Company ESG Rating.

The additional key issue scores and data available by index are as follows:

- MSCI ACWI: Water Stress, Labor Management, Privacy and Data Security
- MSCI ACWI IMI: Carbon Emissions, Human Capital Development and Tax Transparency

We continue to provide data and scores for the discontinued Key Issues under the ESG Rating model for the MSCI ACWI Index: Corruption & Instability, Business Ethics & Fraud, Anticompetitive Practices.

*[For symbols and terms used in this report, refer to the Glossary section at the end of the report]

EXPOSURE

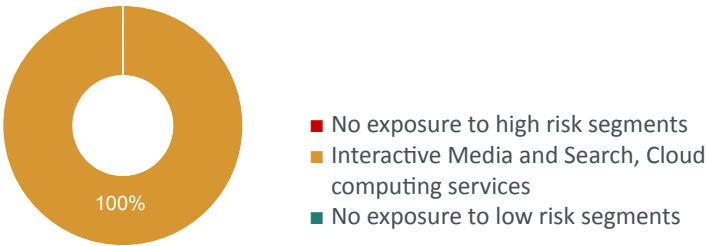
RISK EXPOSURE
ASSESSMENT



Key Drivers of Risk Exposure

Exposure to: Regulatory risks or lost market access due to corruption scandals or political and social instability

Business Types : Percentage of operations in business segments perceived most likely to pay or receive bribes



Source: Bribe Payers Index (Transparency International); State Capture Index (Transparency International); Refinitiv; MSCI ESG Research; company disclosure

Business Locations : Percentage of operations in countries with high/moderate/low level of corruption and political instability, violence or terrorism



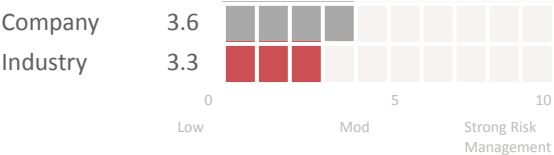
Source: Corruption Perceptions Index (Transparency International); World Governance Indicators (World Bank); Refinitiv; MSCI ESG Research; company disclosure

Additional Drivers of Exposure

Company is reliant on the government sectors for a major proportion: **Not Disclosed**

MANAGEMENT

RISK MANAGEMENT
ASSESSMENT



Description	Company Practice	Best Practice	Practices Score ²			
Policies & Commitments						
Executive body responsible for managing business ethics and corruption issues	Special task force or risk officer	Board-level committee	-	LOW	MID	TOP
Company's bribery and anti-corruption policy	Detailed formal policy on bribery and anti-corruption	Detailed formal policy on bribery and anti-corruption	-	LOW	MID	TOP
Scope of anti-corruption policy for suppliers	All suppliers are required to have anti-corruption policies and programs to verify compliance	All suppliers are required to have anti-corruption policies and programs to verify compliance	-	LOW	MID	TOP
Business ethics policy covers facilitation payments	Policy sets guidelines on facilitation payments, but does not prohibit them	Policy prohibits facilitation payments	-	LOW	MID	TOP
Business ethics policy covers subsidiaries	Policy covers selected subsidiaries only	Policy covers all subsidiaries	-	LOW	MID	TOP
Commitment to external standards for ethics / anti-corruption						
List of commitments to ethics and anti-corruption mandates	EICC					
World Economic Forum's Partnering Against Corruption Initiative (PACI)	Yes	Yes	-	LOW		TOP
Leading industry-specific anti-corruption standards	Yes	Yes	-	LOW		TOP
Programs & Structures						
Scope of employee training on ethical standards	Programs covering all permanent employees (excluding part-time and contractors)	Programs covering all employees (including part-time) and contractors	-	LOW	MID	TOP
Internal assurance of compliance with ethical standards	Yes	Yes	-	LOW		TOP
External assurance of compliance with ethical standards	Yes	Yes	-	LOW		TOP
Provision of whistleblower protection	Whistleblower protection with no details on system or legal protection	Formal anonymous whistleblower system with legal protection	-	LOW	MID	TOP
Due diligence and monitoring of third-party intermediaries / agents with respect to corruption	Not disclosed	Formal processes for screening and monitoring agents	-	LOW	MID	TOP
Disclosure of taxes/royalties paid to governments	Yes	Yes	-	LOW		TOP

Human Rights - Policies and Programs

List of commitments to external mandates to protect human rights	EICC, Founding signatory to the Global Network Initiative principles		
Extension of business ethics policy to contract security providers	Not disclosed	Policy covers all security providers and compliance is ensured by audit	- LOW MID TOP
Job creation - local hiring	Not disclosed	Over 90% of workforce is local	- LOW MID TOP

CONTROVERSIES

All controversies are assessed as part of the annual review of a company's ESG rating. MSCI ESG Research tracks controversies for all companies on a regular basis. The Alphabet has been flagged for involvement in controversial events or alleged misconduct.

Controversy Cases

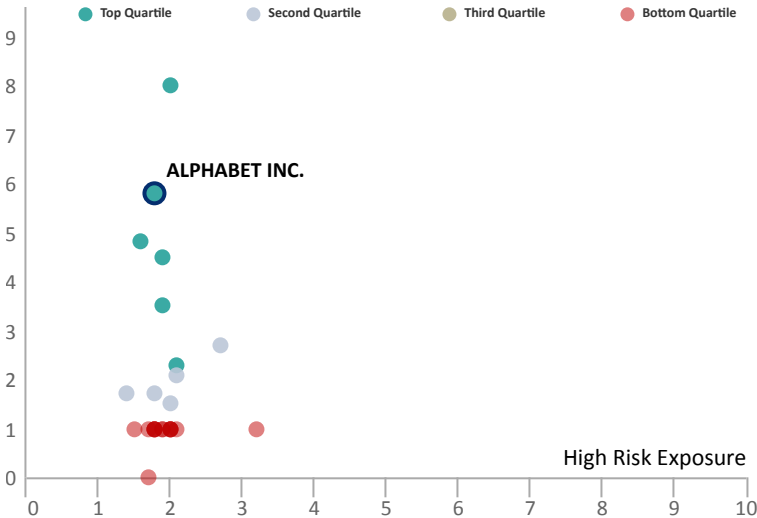
Assessment	Headline	Status	Last Updated
Moderate	Russia: Authorities filed lawsuit over alleged failure to remove protest content	Ongoing	December 2021
Moderate	Pakistan: PTA notice for removing alleged unlawful religious content on Google products	Ongoing	January 2021
Moderate	Alleged improper handling of offensive and threatening content	Ongoing	June 2020
Minor	California, United States: Advocacy group, Consumer Watchdog criticism over alleged biased search results on state election	Ongoing	March 2021
Minor	Criticism over targeted ads option allowing advertisers to potentially exclude persons of nonbinary gender from seeing housing, credit, or job ads; fix underway	Ongoing	March 2021
Minor	New Hampshire, United States: Lawsuit over alleged termination of user's account; lawsuit dismissed	Concluded	February 2021
Minor	Russia: Penalty over Alleged Failure to Exclude Illegal Information from Searches based on Russian Laws	Concluded	August 2020



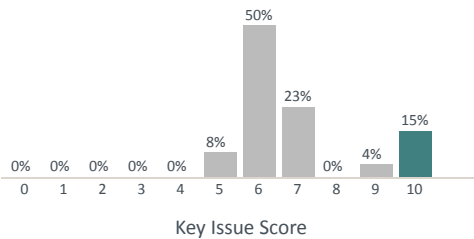
Water Stress

Score	Change (since rating)	Quartile	Weight	As of
10.0	0.0	●●●●	0.0%	Jun 28, 2021

Strong Risk Management



KEY ISSUE SCORE DISTRIBUTION*



TOP 5 INDUSTRY LEADERS

ALPHABET INC.	10.0
BAIDU, INC.	10.0
AUTO TRADER GROUP PLC	9.8
SEEK LIMITED	9.5
NAVER Corporation	8.5

BOTTOM 5 INDUSTRY LAGGARDS

WEIBO CORPORATION	6.0
Yandex N.V.	6.0
REA GROUP LTD	5.9
TENCENT HOLDINGS LIMITED	5.0
JOYY INC.	4.8

METHODOLOGY NOTE

Companies are evaluated on the water intensity of their operations, levels of water stress in their areas of operation and their efforts to manage water-related risks and opportunities.

*[For symbols and terms used in this report, refer to the Glossary section at the end of the report]

This issue does not present significant risks or opportunities to the company and with the assigned weight of 0% does not contribute to the overall ESG rating for the company.

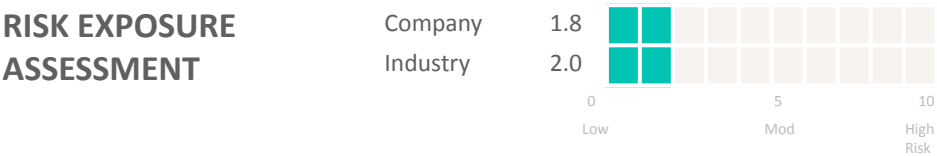
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The additional key issue scores and data available by index are as follows:

- MSCI ACWI: Water Stress, Labor Management, Privacy and Data Security
- MSCI ACWI IMI: Carbon Emissions, Human Capital Development and Tax Transparency

We continue to provide data and scores for the discontinued Key Issues under the ESG Rating model for the MSCI ACWI Index: Corruption & Instability, Business Ethics & Fraud, Anticompetitive Practices.

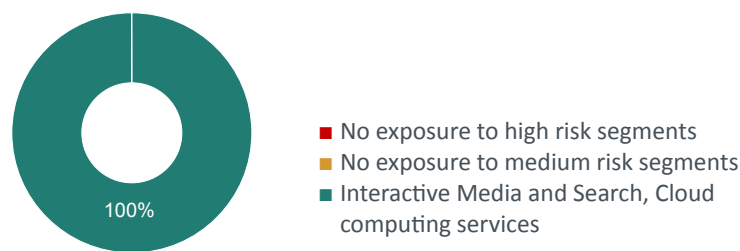
EXPOSURE



Key Drivers of Risk Exposure

Exposure to: Risk of increased cost of input, disputes around access rights to key resources or operational disruptions to production processes requiring water as a critical input

Business Types : Percentage of operations in business segments with high/moderate/low water intensity



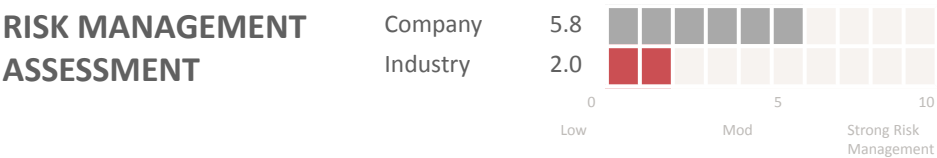
Source: IERS' Comprehensive Environmental Data Archive (CEDA); MSCI ESG Research; Refinitiv; company disclosure

Business Locations : Percentage of operations in countries or regions with high/moderate/low percent of territory affected by oversubscription to water resources



Source: WRI Aqeduct; Refinitiv; MSCI ESG Research; company disclosure

MANAGEMENT



Description	Company Practice	Best Practice	Practices Score ²
-------------	------------------	---------------	------------------------------

Governance and Strategy

Implementation of Water Efficient
Production Processes

7.00

Executive body responsible for water management strategy and performance:

Senior Executive or Executive
Committee are responsible for water
management strategy and
performance

Yes

Yes

- LOW

TOP

Water Consumption/ Withdrawal Targets

Baseline Year	Target Year	Target Description	Target Reduction (%)
2014	2017	The company has regional water-reduction targets	15.00%
2013	2017	The company has regional water-reduction targets for our offices in 2017	

Performance

Water Intensity Relative to Peers (0-10 Score, 0=worst, 10=best)

3.00

Water Withdrawal Performance

Year	Freshwater Withdrawal (m3)	Freshwater Withdrawal Intensity (m3/ USD million sales)
2020		
2019	19,536,661.99	120.70
2018	15,785,289.77	115.37
2017	11,625,089.90	104.87
2016		
2015		
2014		
2013		

Water Consumption Performance

Year	Freshwater Consumption (m3)	Freshwater Consumption Intensity (m3/ USD million sales)	Details
2020			
2019	12,915,925.35	79.80	
2018			
2017			
2016			
2015			
2014			

Year	Freshwater Consumption (m3)	Freshwater Consumption Intensity (m3/ USD million sales)	Details
2013			

CONTROVERSIES

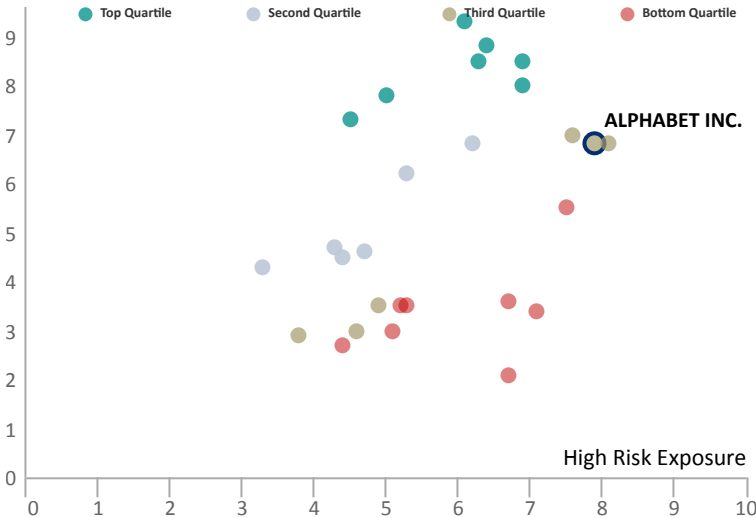
All controversies are assessed as part of the annual review of a company's ESG rating. MSCI ESG Research tracks controversies for all companies on a regular basis. There is no evidence of the Alphabet's current involvement in prominent controversial events or alleged misconduct.



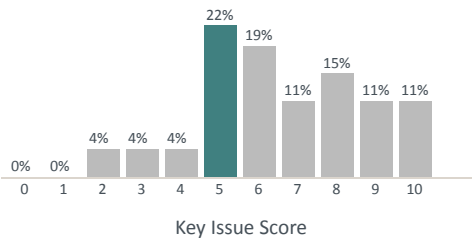
Labor Management

Score	Change (since rating)	Quartile	Weight	As of
5.9	0.0	●●	0.0%	Jun 28, 2021

Strong Risk Management



KEY ISSUE SCORE DISTRIBUTION*



TOP 5 INDUSTRY LEADERS

Scout24 SE	10.0
IAC/INTERACTIVECORP.	9.8
Z Holdings Corporation	9.8
ADEVINTA ASA	9.4
NAVER Corporation	9.2

BOTTOM 5 INDUSTRY LAGGARDS

VK Company Limited	5.0
Autohome Inc	4.9
META PLATFORMS, INC.	3.9
KUAISHOU TECHNOLOGY	3.3
Kakao Corp.	2.4

METHODOLOGY NOTE

Companies are evaluated on the complexity of their workforce (size, labor intensity, and regions of operation), employee relations, strength of worker protections, and employee engagement efforts.

*[For symbols and terms used in this report, refer to the Glossary section at the end of the report]

This issue does not present significant risks or opportunities to the company and with the assigned weight of 0% does not contribute to the overall ESG rating for the company.

MSCI ESG Research provides additional scores on a select set of ESG Issues for all companies on the MSCI ACWI Index and MSCI ACWI IMI Index. Every company on the index receives scores for the following ESG Issues, regardless of whether they contribute to the overall Company ESG Rating.

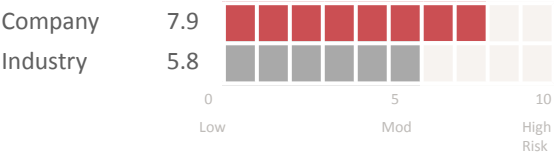
The additional key issue scores and data available by index are as follows:

- MSCI ACWI: Water Stress, Labor Management, Privacy and Data Security
- MSCI ACWI IMI: Carbon Emissions, Human Capital Development and Tax Transparency

We continue to provide data and scores for the discontinued Key Issues under the ESG Rating model for the MSCI ACWI Index: Corruption & Instability, Business Ethics & Fraud, Anticompetitive Practices.

EXPOSURE

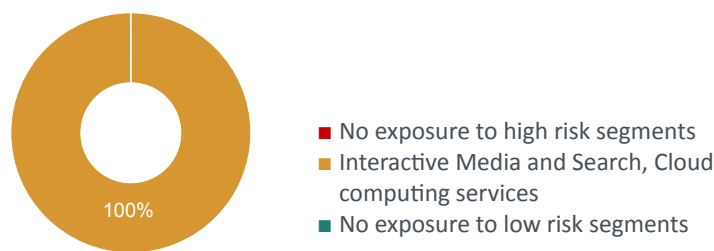
RISK EXPOSURE
ASSESSMENT



Key Drivers of Risk Exposure

Exposure to: Risk of workflow disruptions due to labor unrest, or reduced productivity due to poor job satisfaction

Business Types : Percentage of operations in business segments with high/moderate/low labor intensities, as measured by average sales per employee of industries



Source: MSCI ESG Research; Refinitiv; company disclosure

Business Locations : Percentage of operations in countries with high/moderate/low likelihood of labor unrest (based on historic precedent)



Source: International Labour Organization; Refinitiv; MSCI ESG Research; company disclosure

Size and Composition of Workforce

Number of employees: 135,301

Number of Employees

Year	Number of employees	Part time workers (%)	Contract or temporary workers (%)	Estimated Part time/contract %
2020	135,301			
2019	118,899			
2018	98,771			
2017	80,110			
2016	72,053			
2015	61,814			
2014	53,600			
2013	47,756			

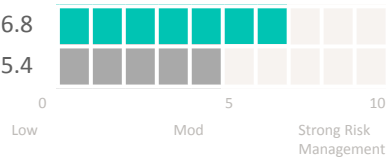
Year	Number of employees	Part time workers (%)	Contract or temporary workers (%)	Estimated Part time/contract %
2012	53,861			
2011	32,467			
2010	24,400			
2009	19,835			
2008	20,222			

MANAGEMENT

RISK MANAGEMENT
ASSESSMENTCompany
Industry

6.8

5.4



Description	Company Practice	Best Practice	Practices Score ²
Strategy			
Percentage of workforce covered by trade unions/ collective agreements	0.00%		
Estimate Key: Percentage of workforce covered by trade unions/ collective agreements	Reported	Reported	- LOW MID TOP
Evidence of collective agreements	Yes	Yes	- LOW TOP
Employee stock ownership plan (ESOP) or employee stock purchase plan (ESPP)	Sector-leading number of employees eligible for ESOP and/or ESPP	Sector-leading number of employees eligible for ESOP and/or ESPP	- LOW MID TOP
Non-compensation benefits including pension and retirement	Benefits cover selected employees	Benefits cover all employees	- LOW MID TOP

[External recognition - details](#)

Year	Awarding authority name	Title of the Award
2020	Forbes	World's Best Employers 2020
2019	Forbes	Top Regarded Companies 2019
2019	Forbes	World's Best Employers 2019
2018	Forbes	Best places to work in 2018
2017	Fortune	100 Best Companies to Work For
2016	Fortune	100 Best Companies to Work For

[Employee turnover](#)

Year	Annual employee turnover (%)	Details
2020		

Year	Annual employee turnover (%)	Details
2019		
2018		
2017		Median Employee total annual compensation \$197,274
2016		

Employee Productivity

Year	Profit per employee (USD '000)
2019	0
2018	0

CONTROVERSIES

All controversies are assessed as part of the annual review of a company's ESG rating. MSCI ESG Research tracks controversies for all companies on a regular basis. The Alphabet has been flagged for involvement in controversial events or alleged misconduct.

Controversy Cases

Assessment	Headline	Status	Last Updated
Severe	US: USD 3.8 million settlement over alleged pay and hiring discrimination against female employees; certified class action pending	Ongoing	August 2021
Moderate	United States: NLRB complaint over alleged termination of employees who organized protest	Ongoing	December 2021
Moderate	Iowa, US: Temporary workers' weekly program resumed following reports of potential organized labor action	Concluded	December 2021
Moderate	South Carolina, US: Lawsuit over alleged wrongful termination of temporary worker	Ongoing	December 2021
Moderate	Contractors demand better pay and benefits	Ongoing	November 2021
Moderate	United States: Regulatory investigation into labor practices following alleged retaliation against employees involved in labor organizing activities	Ongoing	November 2021
Moderate	South Carolina: Settlement to lawsuit filed by worker union on behalf of contractor over alleged wrongful suspension	Concluded	May 2021
Moderate	California, United States: USD 1.5 million of settlement to proposed class action lawsuit over alleged failure to provide meal and rest breaks	Ongoing	May 2021
Moderate	Worker Sit-In Protest Due to Alleged Retaliation against Employee Participation in Organized Strikes	Ongoing	May 2019
Minor	California, United States: Employee filed lawsuit over alleged pregnancy discrimination and retaliation	Ongoing	November 2021
Minor	USD 310 settlement over protests and demands for reform by 20,000 employees over alleged systemic failure to fairly address sexual harassment	Concluded	June 2021

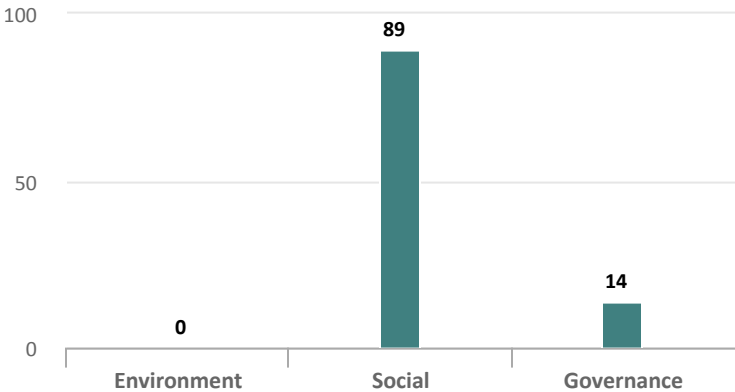
CONTROVERSIES DETAIL

Here you will find the narratives for all controversies relevant to the ESG Ratings issues covered for the company in addition to those controversies that do not map to the ESG Ratings issues.

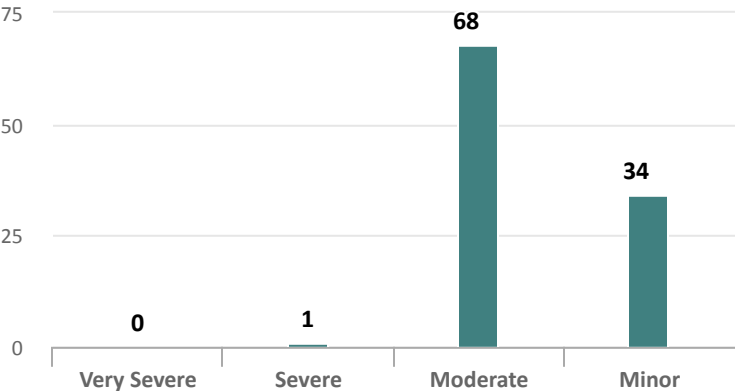
CONTROVERSY CARD

	MOST SEVERE CONTROVERSY	CONTROVERSY COUNT
Environment		
Carbon Emissions	None	0
Water Stress	None	0
Opportunities in Clean Tech	None	0
Social		
Labor Management	Severe	11
Human Capital Development	Severe	11
Privacy & Data Security	Moderate	32
Governance		
Corruption & Instability	Moderate	7
Business Ethics & Fraud	Moderate	15
Anticompetitive Practices	Moderate	24
Corporate Governance	None	0
Corporate Behavior	Moderate	50

NUMBER OF CONTROVERSIES BY PILLAR



NUMBER OF CONTROVERSIES BY ASSESSMENT



CONTROVERSIES

- Very Severe:** Indicates an action by a company that results in a very large impact on society and/or the environment.
- Severe:** Indicates an action by a company that results in a large impact on society and/or the environment.
- Moderate:** Indicates an action by a company that results in a moderate impact on society and/or the environment.
- Minor:** Indicates an action by a company that results in a low impact on society and/or the environment.
- None:** There is no evidence that a company is involved in any controversy.

SOCIAL CONTROVERSIES

Severe Controversies

Date: May 2021

Assessment: Severe

Status: Ongoing

US: USD 3.8 million settlement over alleged pay and hiring discrimination against female employees; certified class action pending

In April 2017, the U.S. Department of Labor (DOL) filed a lawsuit against Google, Inc. (an Alphabet Inc. company) over allegations that the company pays much less compensation to its female employees than to its male employees. The DOL claimed that Google refused to comply with an audit request related to pay gap accusations that occurred earlier in 2017 and said the lawsuit was the result of findings made during preliminary investigations.

In February 2021, Google agreed to pay USD 3.8 million in settlement with the DOL to resolve allegations of compensation and hiring discrimination for software engineers at its California and Washington offices. According to the DOL, the compensation would cover 2,565 female employees who were subject to pay gap, and as well as 1,757 female and 1,219 Asian applicants who were not hired.

In May 2021, the Superior Court of California certified a class action covering 10,800 female workers of Google over the allegation of unequal pay between men and women. The class action sought USD 600 million in compensation.

UPDATES: 27 May 2021: Women suing Google over gender bias win class-action status. (Los Angeles Times)

01 Feb 2021: Google LLC, US Department of Labor Settlement resolves alleged pay, hiring discrimination at California, Washington state locations. (U.S. Department of Labor)

22 Jul 2020: Women at Google miss out on thousands of dollars as a result of pay discrimination, lawsuit alleges; An ongoing 2017 case found that discriminatory practices may be pushing women into lower-paying career tracks. (The Guardian)

22 Jul 2020: Google women seek class-action status for gender-pay lawsuit. (The Straits Times)

04 Mar 2019: Google asked about pay equity and learned it was mostly underpaying men. (Seattle Times)

26 Oct 2018: Google gender pay gap: women advance suit that could affect 8,300 workers. (The Guardian)

28 Mar 2018: Google sees major claims of harassment and discrimination as lawsuits proceed. (The Guardian)

14 Sep 2017: Case No. CGC-17-561299. (Superior Court of the State of California, County of San Francisco)

17 Jul 2017: DOL's Request For Google's Salary Data Ruled As 'Intrusive'. (Androis Headlines)

10 Apr 2017: US government sues Google claiming 'quite extreme' gender gap in pay. (COMPUTING)

Source: 27 May 2021 (Los Angeles Times)

Moderate Controversies

Date: December 2021
Assessment: Moderate
Status: Ongoing

U.K.: CMA investigation into alleged duopoly with Apple in mobile ecosystems

In June 2021, U.K.'s Competition and Markets Authority (CMA) started a market study on Google, which was operated by Alphabet Inc., and Apple over the alleged impact on users and other businesses by the companies' effective duopoly in mobile ecosystems. According to the regulator, Google and Apple's dominant position in the mobile phone market were reflected by the supply of operating systems iOS and Android, the app stores App Store and Play Store, as well as the web browsers Safari and Chrome. CMA was concerned that the two companies' control over mobile ecosystems could reduce innovation and have consumers pay higher prices.

In December 2021, the CMA released its provisional findings in an interim report into mobile ecosystems suggesting that Apple and Google's duopoly of the market limited competition and consumer choices.

UPDATES: 14 Dec 2021: Apple and Google duopoly limits competition and choice. (Competition and Markets Authority)

15 Jun 2021: CMA to scrutinise Apple and Google mobile ecosystems. (Competition and Markets Authority)

Source: 14 Dec 2021 (Competition and Markets Authority)

Date: December 2021
Assessment: Moderate
Status: Ongoing

South Carolina, US: Lawsuit over alleged wrongful termination of temporary worker

In December 2021, Hindustan Times reported that a former temporary worker filed a wrongful termination complaint with the National Labor Relations Board (NLRB) against Google, a subsidiary of Alphabet Inc., and its staffing agency, Modis. The worker alleged that she was fired from her post at Google's South Carolina data center in November for her remarks during a meeting about holiday pay. The Alphabet Workers Union (AWU) who was approached by the dismissed worker, said that the worker was practicing legally protected speech on compensation during the meeting.

UPDATES: 04 Dec 2021: Shocking! Temp Google employee fired in just 9 days for being 'ungoogley'. (HINDUSTAN TIMES)

Source: 04 Dec 2021 (HINDUSTAN TIMES)

Date: December 2021
Assessment: Moderate
Status: Ongoing

European Union: Lawsuits, complaints, and penalties over alleged GDPR violations

Google, a subsidiary of Alphabet Inc., has been the subject of allegations of violations of the European Union's (EU) General Data Protection Regulation (GDPR).

In May 2018, Austrian privacy advocacy group None of Your Business (NOYB) filed a lawsuit in France, Belgium, Germany, and Austria against Alphabet Inc. and Facebook Inc. over alleged violations of the GDPR. The non-profit organization alleged that the companies forced its users to agree broadly to new terms of service or lose access to the companies' services. NOYB stated that European consumers should be given more specific control over the use of their data.

In November 2018, consumer groups in Czech Republic, Greece, Netherlands, Norway, Poland, Slovenia, and Sweden filed similar complaints. In particular, they alleged that the company tracked users of Google's Android mobile platform without their full consent. A French consumer group also filed a class-action lawsuit against Google Ireland and Google LLC. for violating GDPR and was seeking 1,000 EUR (approximately USD 1,135) for each of 200 users in the lawsuit.

In January 2019, the French Data Protection Authority, Commission Nationale de l'informatique et des Libertés (CNIL), imposed a penalty of EUR 50 million (approximately USD 57 million) over alleged lack of proper disclosure in data being collected by the company's applications in violation of GDPR.

In September 2019, Ireland's Data Protection Commission launched an investigation against potential EU General Data Protection Regulation (GDPR) violations by Google over alleged use of secret web networks to collect and distribute personal users data to advertising firms.

In March 2020, the Swedish Data Protection Authority also imposed a fine of SEK 75 million (approximately USD 7.2 million) over alleged GDPR violations related to the right of individuals to request delisting. A Spanish court, on the other hand, partially accepted Google's appeal on a ruling to remove news articles linked to an individual accused of sexual abuse. Instead, the court asked the company to display news regarding the man's acquittal on top of search results.

In December 2021, Dagens Juridik reported that the a Court of Appeal in Gothenburg, Sweden upheld a SEK 50 million (approximately USD 5.5 million) penalty on Google for its alleged GDPR violation related to its routine practice of informing webmasters when search results have been removed at the request of individuals who wish not to be identified when their names are searched online.

UPDATES: 01 Dec 2021: Googles rutin strider mot GDPR – tvingas betala 50 miljoner. [Google's routine violates GDPR - forced to pay 50 million] (Dagens Juridik)

21 Jan 2021: Google questionnaires target data-use, collection, EU says. (THESTAR.COM.MY) The European Union sent out questionnaires to relevant industries about data practices.

10 Dec 2020: UPDATE 1-Google, adtech firms hit with fresh EU privacy complaints. (Reuters) Several NGOs in Europe filed complaints against Google over alleged breach of privacy rights.

14 Jul 2020: Droit à l'oubli : Google condamné à 600000 euros d'amende en Belgique [Right to be forgotten: Google fined 600,000 euros in Belgium]. (Le Parisien) The Belgian Data Protection Authority imposed a penalty of EUR 600,000 (approximately USD 680,199) on Google Belgium for alleged negligence and failure to uphold an individual's "right to be forgotten" request after allegedly refusing to remove from its search results links to articles which were outdated and damaging to the reputation of the individual with a public profile.

19 Jun 2020: Top French court upholds \$56 million Google privacy breach fine. (Reuters) CNIL confirmed the EUR 50 million (approximately USD 57 million) penalty it imposed on Google in January 2019 over alleged lack of proper disclosure in relation to data collection.

11 Mar 2020: Swedish authority fines Google SEK 75 mln for breaching 'right to be forgotten'. (TELECOMPAPER)

07 Mar 2020: Spanish ruling on 'right to be forgotten' says Google must put man's acquittal at top of search results. (JAPAN TIMES)

29 Nov 2019: EU antitrust regulators seek details of Google's data practices - document. (Reuters)

21 Nov 2019: 'Fb, Google attacking users' right to privacy'. (UNI (UNITED NEWS OF INDIA))

05 Sep 2019: Google accused of using secret web pages to leak users' personal data to advertising firms. (COMPUTING)

04 Sep 2019: Google accused of secretly feeding personal data to advertisers. (TELEGRAPH.CO.UK)

26 Jun 2019: French lawsuit accuses Google of violating EU privacy rules. (Seattle Times)

28 Jan 2019: Privacy campaigners file new evidence to support claims that Google unlawfully profiles internet users. (Computing)

21 Jan 2019: Google Is Fined \$57 Million Under Europe's Data Privacy Law. (The New York Times)

18 Jan 2019: Austrian data privacy activist files complaint against Apple, Amazon, others. (Reuters)

27 Nov 2018: Google accused of manipulation to track users. (Agence France Presse)

30 May 2018: The Privacy Lawyer Giving Big Tech an \$8.8 Billion Headache. (The New York Times)

25 May 2018: Facebook and Google targeted as first GDPR complaints filed: Users have been forced into agreeing new terms of service, says EU consumer rights body. (The Guardian, UK)

Source: 01 Dec 2021 (Dagens Juridik)

Date: November 2021
Assessment: Moderate
Status: Ongoing

United States: NLRB complaint over alleged termination of employees who organized protest

In December 2020, the U.S. National Labor Relations Board (NLRB) filed a complaint against Google, which was operated by Alphabet Inc., over alleged two terminated employees who organized protests. Google stated the employees were terminated because of violating company policies, including allegedly accessing documents and calendar information outside the scope of responsibility.

UPDATES: 30 Nov 2021: Google breached its own 'don't be evil' motto, ex-employees' lawsuit claims. (The Guardian)

30 Nov 2021: Judge orders Google to hand over anti-union strategy documents in retaliation hearing. (Miami Herald)

25 Aug 2021: Google says workers have no right to protest its choice of customers. (Silicon Valley Business (California))

02 Dec 2020: Google broke US labor law by spying on and firing workers, complaint alleges. (CNET News)

Source: 30 Nov 2021 (The Guardian)

Date: November 2021
Assessment: Moderate
Status: Ongoing

Italy: EUR 10 million penalty for alleged improper use of consumers' data for commercial purposes; appeal pending

In November 2021, the Italian Competition Authority (AGCM) imposed a EUR 10 million (approximately USD 11.2 million) penalty on Google Ireland Ltd. (Google), a subsidiary of Alphabet Inc., for its alleged aggressive practices in collecting and using consumers' data for commercial purposes. The AGCM also claimed that Google failed clearly and immediately inform consumers on how it collects and uses their data for commercial purposes. Google said that it would appeal against the ICA's decision.

The AGCM also penalized Apple Inc. for similar reasons.

UPDATES: 30 Nov 2021: Italy's antitrust regulator fines Google, Apple over data use. (Reuters)

26 Nov 2021: PS11147-PS11150 - Sanzioni per 20 milioni a Google e ad Apple per uso dei dati degli utenti a fini commerciali.

[PS1114-PS11150 - Penalties of 20 million to Google and Apple for using user data for commercial purposes. (Autorita Garante Della Concorrenza e del Mercato)]

Source: 30 Nov 2021 (Reuters)

Date: November 2021
Assessment: Moderate
Status: Ongoing

Russia: Authorities filed lawsuit over alleged failure to remove protest content

In March 2021, Russian authorities filed lawsuits against several social media platforms including Google, which was operated by Alphabet Inc., over alleged failure to remove content that urged children to participate in illegal protest. According to Interfax report, each of the company's violations could meet penalties up to RUB 4 million (approximately USD 52,800).

In April 2021, the head of Russia's Committee on Safety and Anti-Corruption stated in a reporter meeting that Google representatives promised to review the investigative documents and remove all contents that violated Russian laws.

In August 2021, a local court in Moscow imposed two penalties of RUB 10.5 million (approximately USD 151,410) and RUB 6 million (approximately USD 86,520) on Google for its alleged failure to remove illegal content.

In September 2021, Google received another penalty of RUB 6.5 million (approximately USD 93,730) from a Moscow court for alleged failure to delete banned content.

In November 2021, Reuters reported that a Moscow court again penalized Google RUB 2 million (approximately USD 28,085) for failure to remove content that Russia deemed illegal. Later that month, Reuters reported that the Moscow court imposed a further penalty of RUB 3 million (approximately USD 40,400) on Google over the matter.

Other companies allegedly involved were Facebook, Inc. and Twitter, Inc.

UPDATES: 29 Nov 2021: CORRECTED-Russia fines Google 3 million roubles for not deleting banned content. (Reuters)

08 Nov 2021: Russia fines Google again over banned content. (Reuters)

29 Sep 2021: Russia fines Google for failing to delete banned content. (Reuters)

19 Aug 2021: Russia fines Google again for failing to remove banned content. (Reuters)

17 Aug 2021: UPDATE 1-Russia fines Google for not deleting banned content. (Reuters)

16 Apr 2021: Google promises to remove all illegal content shortly, Russian lawmaker assures. (TASS)

09 Mar 2021: Russia sues Google, Facebook, Twitter for not deleting protest content – Ifax. (Reuters)

Source: 29 Nov 2021 (Reuters)

Date: November 2021
Assessment: Moderate
Status: Ongoing

France: EUR 500 million of FCA penalty over alleged failure to comply with temporary orders to compensate news publishers

In July 2021, the French Competition Authority (FCA) imposed a penalty of EUR 500 million (approximately USD 583 million) on Google, which was operated by Alphabet Inc., over the company's alleged failure to comply with temporary orders to compensate news publishers in France. The regulator further requested Google's proposals regarding compensations to news agencies and publishers for the use of news.

In September 2021, Google appealed against the FCA penalty, stating the amount was unacceptable when the company was trying to reach an agreement with local news publishers.

UPDATES: 17 Nov 2021: Google signs 5-year deal to pay for news from AFP. (Reuters)

01 Sep 2021: Google appeals €500m French fine in dispute over news copyright. (THE GUARDIAN)

13 Jul 2021: UPDATE 2-France fines Google 500 mln euros over copyright row. (Reuters)

Source: 17 Nov 2021 (Reuters)

Date: November 2021
Assessment: Moderate
Status: Ongoing

Reports of user access issues across several Google products

In November 2021, Indian Express reported that thousands of users across Asia, Europe and the United States have allegedly experienced temporary issues in accessing various services of its subsidiary's services on mobile and web applications including Gmail, Google Calendar, Google Chat, Google Groups, and Google Meet. Reuters also reported later in the same month that multiple social media websites and applications using Google Cloud Networking briefly suffered service disruptions.

UPDATES: 17 Nov 2021: Google Cloud, Snap, Spotify back up after brief outage. (Reuters)

12 Nov 2021: Gmail, Google Calendar, Google Chat reported outages across Europe, Asia and US. (INDIAN EXPRESS)

Source: 17 Nov 2021 (Reuters)

Date: November 2021
Assessment: Moderate
Status: Ongoing

Privacy concerns over alleged settings bypass on Apple devices' browsers

Google, an Alphabet Inc. company, has been involved in a controversy regarding its alleged bypass of privacy settings in the Safari web browser on Apple devices. The company has settled a lawsuit by the U.S. Federal Trade Commission (FTC) in connection with the controversy. Google has also settled a similar lawsuit filed by 37 U.S. states and the District of Columbia. A group of UK consumers filed a lawsuit claiming that the alleged bypass violated privacy laws by tracking internet use without user permission from 2011 to 2012.

In March 2012, the FTC initiated its investigation into the matter, following a February 2012 investigative report by the Wall Street Journal (WSJ) that alleged that Google had been bypassing privacy settings and tracking the web activity of Safari users despite default settings to the contrary. Safari is the default web browser of millions of Apple's computer and mobile devices. Google reportedly used code that caused Safari to disregard default privacy settings that would have blocked advertising cookies from being installed on the devices. The code was discovered by a researcher at Stanford University and was reportedly verified by a WSJ technical adviser. Google disabled the code after WSJ contacted the company about its findings but asserted that the bypass was to allow cookies that enable certain features for users that have signed in to its services and that the cookies did not collect personal information.

In October 2018, a UK court blocked the lawsuit by the consumer advocacy group. The decision was later overturned by the court of appeal in October 2019.

In November 2021, The Guardian reported that a UK High Court granted Google's appeal against the 2019 court of appeal's decision to allow the consumers' lawsuit to proceed. The High Court ruled that the lawsuit which sought uniform awards without proving financial loss or mental distress was 'unsustainable'.

UPDATES: 10 Nov 2021: Top UK court blocks legal action against Google over internet tracking. (THE GUARDIAN)

02 Jun 2020: Brown et al. v. Google LLC et al. (California Northern District Court)

03 Oct 2019: A London court has given the go-ahead to a class action lawsuit against Google over iPhone data collection issues. (Business Insider)

07 Aug 2019: Appeals court concerned Google's \$5.5 million settlement over alleged privacy violations won't actually go to consumers. (Market Watch)

07 Aug 2019: Panels overturns settlement approval in Google privacy suit. (Business Insider)

06 Aug 2019: U.S. appeals court voids Google 'cookie' privacy settlement that paid users nothing. (Reuters)

08 Oct 2018: UK high court blocks mass privacy action against Google. (The Guardian, UK)

21 May 2018: Google may face \$4.3 bn claim in UK iPhone privacy case. (Economic Times of India)

03 Feb 2017: \$5.5M Settlement Approved in Google Cookie Class Action. (LAW.COM)

30 Aug 2016: Google Just Agreed to Pay \$5.5 Million to Settle Claims It Hacked Apple's Browser. (Fortune) Google agreed to a USD5.5 million settlement with six online advocacy plaintiffs who brought a class action suit against the company related to Google's alleged overriding of user cookie blockers.

09 Jun 2015: Google faces privacy lawsuit from Apple users. (The Independent, UK) More than 2,000 users of Apple devices in the UK joined the lawsuit.

27 Mar 2015: Safari users in the UK can sue Google over alleged privacy violations. (PCWorld)

Nov 2013: Google agreed to pay USD 17 million to settle a similar case filed by 37 U.S. states and the District of Columbia. The company reiterated that it has already disabled the ad cookies.

Aug 2013: Google, in its application for a case in the UK to be dismissed, argued that it is not under the jurisdiction of British privacy laws.

Jan 2013: A group of users of Apple devices in the UK filed a lawsuit against Google, claiming similar privacy violations. The plaintiffs also demanded Google to disclose what information was collected and for how long. The company stated that it did not intentionally bypass Safari settings.

Aug 2012: Google agreed to pay a USD 22.5 million penalty to settle allegations by the US Federal Trade Commission (FTC) that the company had violated the terms of a previous agreement with the FTC by misrepresenting privacy practices to users of Apple's Safari web browser. The settlement was approved by the courts in November 2012.

Source: 10 Nov 2021 (THE GUARDIAN)

Date: November 2021
Assessment: Moderate
Status: Concluded

EUR 2.4 billion penalty over allegations of anti-competitive practices related to online search results

In June 2017, the European Union (EU) imposed a EUR 2.4 billion (approximately USD 2.7 billion) penalty against Google, Inc., an Alphabet, Inc. company, over allegations of antitrust violations by favoring its online shopping services in search results over those of its competitors. The EU gave Google 90 days to comply with the ruling or risk additional penalties. In addition to the penalty, Google was required to create proposals in which all its competitors would be treated fairly in online search queries.

In September 2017, Google announced that it would formally appeal the EU's penalty but also proposed creating an auction option that would enable competitor shopping sites to bid for prime spots in the company's shopping section.

In October 2019, the General Court scheduled a hearing for the arguments related to Google's appeal on February 2020.

In November 2021, the Irish Times reported that Google's appeal was denied by the General Court of Luxembourg.

UPDATES: 10 Nov 2021: Google loses appeal against €2.4bn EU fine. (IRISH TIMES)

20 Jul 2021: EU court to rule on Google's \$2.8 billion EU antitrust fine on Nov. 10 - sources. (REUTERS)

12 Feb 2020: Google defende-se de multa no Tribunal Europeu. (EURONEWS)

10 Feb 2020: Google to begin legal battle with EU over (EURO)8.2bn in fines; Google will head to a court in Luxembourg to argue against a multi-billion euro fine over its shopping search results. (TELEGRAPH)

05 Nov 2019: Britons take price comparison battle with Google to US. (THE DAILY TELEGRAPH (LONDON))

14 Oct 2019: Google's fight against EU antitrust fine to be heard February 12-14 at EU court. (CHANNEL NEWSASIA)

18 Sep 2017: Exclusive: Google offers to treat rivals equally via auction - sources. (Reuters)

13 Sep 2017: Google appeals EU US\$2.87 billion fine over search results. (Taipei Times - Business)

29 Aug 2017: Alphabet's Google acts to comply with EU antitrust order. (GulfNews)

27 Jun 2017: Google Fined Record \$2.7 Billion in E.U. Antitrust Ruling. (New York Times)

Source: 10 Nov 2021 (IRISH TIMES)

Date: November 2021
Assessment: Moderate
Status: Concluded

Iowa, US: Temporary workers' weekly program resumed following reports of potential organized labor action

In November 2021, the New York Times reported that Google, a subsidiary of Alphabet Inc., and its staffing agency, Modis, resumed the payments of a USD 200 weekly bonus program for approximately 250 temporary workers at its Iowa data center. The workers would also receive back pay and the program would continue until December 19. Google said that the bonus program was temporarily paused in October due to a billing error and miscommunication which have since been resolved. It was reportedly unclear whether the threat of organized action by the Alphabet Workers Union-CWA played a role in the resumption of the bonus payments.

UPDATES: 06 Nov 2021: Google Temps Lost a Bonus, And Then They Won It Back. (The New York Times)

Source: 06 Nov 2021 (The New York Times)

Date: November 2021
Assessment: Moderate
Status: Ongoing

EC antitrust investigation relating to digital advertising technology services

In June 2021, the European Commission (EC) started an antitrust investigation into Google, which was operated by Alphabet Inc., to examine whether the company limited competition by favoring its own online advertising technology services. The regulator intended to assess whether Google restricted third parties from using user data for advertising purposes on websites and apps.

In September 2021, Google was reported to make a proposal to settle the EC investigation.

UPDATES: 03 Nov 2021: Italian watchdog drops Google display adv case as EU antitrust investigates. (THESTAR.COM.MY)

24 Sep 2021: Google offers to settle EU antitrust probe into digital advertising - source. (THE NATIONAL POST)

22 Jun 2021: EU says it's opened antitrust probe into Google's ad-tech practices. (MORNINGSTAR.COM)

Source: 03 Nov 2021 (THESTAR.COM.MY)

Date: October 2021
Assessment: Moderate
Status: Ongoing

Canada: Competition Bureau investigation relating to online advertising business on YouTube

In October 2021, the Competition Bureau in Canada started an investigation into Google, the subsidiary of Alphabet Inc., for potential anti-competitive behavior in operating ads business on its YouTube platform as well as in the ecosystem of online advertising. According to the regulator's affidavit, the investigation would examine whether Google abused its market dominance in advertising technology markets as a supplier of in-stream video advertising space.

UPDATES: 23 Oct 2021: Canada competition bureau has court order for Google advertising probe - statement. (Reuters)

16 Oct 2021: Competition Bureau in midst of new probe of Google over advertising dominance in Canada. (THE NATIONAL POST)

Source: 23 Oct 2021 (Reuters)

Date: October 2021
Assessment: Moderate
Status: Ongoing

United States: 14 states filed lawsuit over alleged anticompetitive business practices

In July 2019, the U.S. House of Representatives held a hearing into alleged anticompetitive business practices by Google and other tech giants over concerns that their dominant position might prevent new companies from competing and undermine market innovation.

In October 2020, the House Judiciary Committee's Antitrust Subcommittee released the findings of its investigation into the business practices of four tech giants, including Google. The subcommittee's report alleged that the companies leveraged their market dominance and stifled innovation through the acquisition of small competitors, self-preferencing, predatory pricing, and exclusionary conduct. The report also contains the subcommittee's recommendations for Congress and antitrust enforcement agencies to update and strengthen antitrust laws and enforcement to restore competition in the digital market, including through the structural separation of the companies' online platforms from other business lines.

In the same month, the U.S. Department of Justice (DOJ), along with Attorneys General from eleven states, filed a civil antitrust lawsuit against Google over alleged anticompetitive and exclusionary practices in the search markets. The Attorney Generals represented the states of Arkansas, Florida, Georgia, Indiana, Kentucky, Louisiana, Mississippi, Missouri, Montana, South Carolina, and Texas. DOJ further disclosed Google's four specific violations including exclusivity agreements forbidding competing search service, preinstalled and undeleted search applications on mobile devices, long-term agreements with Apple requiring Google as the general search engine, continuous and self-reinforcing cycle of monopolization.

In March 2021, the states of Alaska, Nevada and Puerto Rico announced to join the civil antitrust lawsuit against Google. The Attorney Generals also amended the complaint to include concerns regarding Google's relationship with Facebook Inc.

In July 2021, 37 attorneys general filed another antitrust lawsuit against Google over alleged extravagant commission in its app store as well as anticompetitive tactics in Android app distribution. According to the lawsuit, Google set 30% of digital goods sales as the company's commission on Google Play Store and required some apps to use its own payment tools. The lawsuit further stated that Google tried to diminish the competition, ensuring app developers could distribute their products through Google Play Store only.

In October 2021, the U.S. Consumer Financial Protection Bureau (CFPB) ordered several large technology companies including Alphabet Inc. to provide information on their payment system plans as part of its monitoring of consumer protection risks such as user data surveillance and access restrictions.

UPDATES: 21 Oct 2021: CFPB Orders Tech Giants to Turn Over Information on their Payment System Plans. (U.S. Consumer Financial Protection Bureau)

08 Jul 2021: UPDATE 3-U.S. states allege Google unlawfully preserves Play Store monopoly. (REUTERS)

08 Jul 2021: UPDATE 2-Dozens of U.S. states sue Google over Play Stores extravagant commission. (REUTERS)

21 Apr 2021: Apple, Google Come Under Fire at Senate Antitrust Hearing. (MORNINGSTAR.COM)

31 Mar 2021: Google, U.S. government tangle over pre-trial document production. (Reuters)

17 Mar 2021: More U.S. states join Texas-led antitrust lawsuit against Google. (Reuters)

16 Mar 2021: Attorney General Moody Takes Action Against Google for Anticompetitive Practices. (Office of Attorney General for the State of Florida)

05 Feb 2021: Lead Texas Atty In Google Suit Tells Team Not To Use Gmail. (LAW360)

23 Jan 2021: EU lawmakers want Amazon, Apple, Facebook, Google CEOs at February 1 hearing. (HINDUSTAN TIMES)

20 Jan 2021: Google asks U.S. judge to move states' antitrust lawsuit to California. (THESTAR.COM.MY)

17 Jan 2021: Google disputes Texas' suit claiming unfair advertising sales practices. (CHANNEL NEWSASIA)

08 Jan 2021: DOJ, AGs Get Google Cases Combined For Discovery. (LAW360)

31 Dec 2020: Google's antitrust case won't go to trial until 2023. (THE HOUSTON CHRONICLE) U.S. District Judge for the District of Columbia set a tentative trial date at September 12, 2023.

22 Dec 2020: Texas Antitrust Case Against Google would Harm Consumers and Small Businesses. (Competitive Enterprise Institute)

17 Dec 2020: UPDATE 2-Google faces third antitrust lawsuit as 30 U.S. states plan action -source. (REUTERS UK)

17 Dec 2020: Google says antitrust lawsuit would 'deprive' Americans of information, 'hurt businesses'. (FOXBUSINESS.COM)

17 Dec 2020: Ten US states sue Google for colluding with Facebook to rig online advertisement market. (RUSSIA TODAY)

16 Dec 2020: Texas leads Republican attorneys general in new antitrust lawsuit against Google, targeting its advertising empire. (WASHINGTON POST)

11 Dec 2020: UPDATE 1-California files to join U.S. antitrust lawsuit against Google. (REUTERS UK)

08 Dec 2020: Google lawsuits by States coming in 'weeks,' Texas AG says. (HINDUSTAN TIMES)

02 Dec 2020: U.S judge hearing Google case rejects governments protective order request. (REUTERS INDIA)

23 Nov 2020: U.S. states prepping second antitrust lawsuit against Google for next month. (REUTERS CANADA)

20 Nov 2020: Apple, GroupM, others ask for tough protection for data in Google lawsuit. (REUTERS INDIA)

17 Nov 2020: Hawley grills Zuckerberg over whistleblower claim of Facebook coordination with Google, Twitter. (NEW YORK POST)

14 Nov 2020: Sharing data with Google would hurt future probes, US says. (HINDUSTAN TIMES)

14 Sep 2020: Market Chatter: US Antitrust Case Against Google Set to Expand as State AGs Conduct Probes. (MIDNIGHT TRADER LIVE BRIEFS)

30 Oct 2020: Google Mulling Bid To Toss DOJ's Antitrust Suit. (LAW360)

21 Oct 2020: Seven states may sue Google in coming weeks: NY AG. (REUTERS UK) Seven additional states including Colorado, Iowa, Nebraska, North Carolina, Tennessee, and Utah planned to conclude their investigation into Google and join the antitrust complaint.

21 Oct 2020: Indian-born judge to hear antitrust case against Google.... (DECCAN HERALD)

20 Oct 2020: AG Fox Sues Monopolist Google For Violating Antitrust Laws. (The Montana Department of Justice)

20 Oct 2020: Missouri Attorney General Joins Department of Justice Lawsuit Against Google for Alleged Antitrust Violations. (Office of The Missouri Attorney General)

20 Oct 2020: Justice Department sues monopolist Google for violating antitrust laws. (The United States Department of Justice)

08 Oct 2020: Le Congrès accuse les Gafa d'être de «nouveaux monopoles». [Congress accuses GAFA of being ""new monopolies""] (Le Figaro)

06 Oct 2020: House Panel Calls for Congress to Break Up Tech Giants. (MORNINGSTAR.COM)

06 Oct 2020: Judiciary Antitrust Subcommittee Investigation Reveals Digital Economy Highly Concentrated, Impacted By Monopoly Power. (U.S. House Committee on the Judiciary)

29 Sep 2020: U.S. House Judiciary antitrust report likely to come out as soon as Monday Oct. 5 - source. (Reuters)

22 Sep 2020: Justice Dept. Case Against Google Is Said to Focus on Search Dominance. (NEW YORK TIMES)

15 Sep 2020: UPDATE 2-Google grilled on ad business dominance by U.S. Senate panel. (REUTERS INDIA)

14 Sep 2020: Market Chatter: US Antitrust Case Against Google Set to Expand as State AGs Conduct Probes. (Fidelity)

03 Sep 2020: Justice Dept. Plans to File Antitrust Charges Against Google in Coming Weeks. (The New York Times)

25 Aug 2020: Google taps new general counsel as company faces antitrust scrutiny. (CNET NEWS)

30 Jul 2020: Amazon, Apple, Facebook and Google grilled on Capitol Hill over their market power. (The Washington Post)

23 Jul 2020: 3 lawmakers in charge of grilling Apple, Amazon, Google, and Facebook on antitrust own thousands in stock in those companies (AAPL, AMZN, GOOGL, FB). (BUSINESS INSIDER)

01 Jul 2020: Apple, Google, Amazon and Facebook CEOs agree to testify in House antitrust hearing. (CNBC)

22 May 2020: Amazon and Google face antitrust questions. (CBS News)

16 May 2020: Google likely to face U.S. antitrust lawsuit; Multi-state probe. (THE NATIONAL POST)

01 Oct 2019: Facebook, Google, Amazon face another House inquiry: Bloomberg. (Reuters)

13 Sep 2019: House Committee Requests Tech Executives' Emails in Antitrust Probe. (The Wall Street Journal)

16 Jul 2019: Lawmakers grill Amazon, Facebook, Google and Apple at antitrust hearing. (The Washington Post)

Source: 21 Oct 2021 (U.S. Consumer Financial Protection Bureau)

Date: October 2021
Assessment: Moderate
Status: Ongoing

US: Regulator inquiry on potential data surveillance and other consumer protection risks in payment systems

In October 2021, the U.S. Consumer Financial Protection Bureau (CFPB) ordered several large technology companies including Alphabet Inc. to provide information on their payment system plans as part of its monitoring of consumer protection risks such as user data surveillance and access restrictions. Among the concerns raised by the CFPB was the potential misalignment of consumers' expectations and payment companies' data harvesting and monetization practices.

UPDATES: 21 Oct 2021: CFPB Orders Tech Giants to Turn Over Information on their Payment System Plans. (U.S. Consumer Financial Protection Bureau)

Source: 21 Oct 2021 (U.S. Consumer Financial Protection Bureau)

Date: October 2021
Assessment: Moderate
Status: Ongoing

Google Plus: USD 7.5 million proposed settlement on lawsuits filed after disclosure of account vulnerability millions of users; social network shut down

In October 2018, Google, an Alphabet company, disclosed that at least 500,000 accounts in its social media platform Google Plus were exposed to hacking vulnerabilities. The company also reported that it learned of the issue in March 2018 and that usernames, email addresses, work profile, gender, and age may have been exposed. In addition, applications that use the platform may have had access to the same data. In addition to the disclosure, the company also stated that it plans to close Google Plus soon. New York's and Connecticut's Attorneys General launched probes into the matter. Months later, Google disclosed that up to 52.5 million accounts were potentially compromised which resulted in class suits filed against the company. The Employee's Retirement System of Rhode Island (ERSRI) was the lead plaintiff in the class suit for the alleged failure to disclose the breach.

Google agreed to pay a proposed settlement of USD 7.5 million to resolve alleged data issues on its Google Plus platform. A hearing was set on February 2020 to discuss the initial settlement agreement.

UPDATES: 19 Oct 2021: No new information available.

19 Aug 2021: In re Google Plus Profile Litigation, 5:18-cv-06164. (U.S. District Court for the Northern District of California) The court approved the settlement with objections.

05 Aug 2021: Google+ class action starts paying out \$2.15 for G+ privacy violations. (Ars Technica)

07 Jan 2021: Google's \$7.5M Data Breach Deal OK'd, Attys Get \$1.8M. (LAW360)

21 May 2020: Google's \$7.5M Data Breach Deal Gets Initial Nod. (LAW360) A California federal judge made a preliminary approval to Google's USD 7.5 million settlement.

08 Jan 2020: \$7.5M settlement reached in Google+ class action suit. (Business Insurance)

30 Jan 2019: Rhode Island named lead plaintiff in suit over Google lapse. (Associated Press)

30 Jan 2019: Rhode Island pension fund named to lead Google class action. (Pension & Investment)

17 Oct 2018: Olson et al v. Google Inc. et al. (California Northern District Court)

10 Oct 2018: Senators Demand FTC Investigation Into Google's Privacy Practices & Culture of Concealment. (Office of Massachusetts Senator Markey)

09 Oct 2018: At least two U.S. attorneys general investigating Google glitch. (Reuters)

08 Oct 2018: Google Plus Will Be Shut Down After User Information Was Exposed. (The New York Times)

Source: 19 Aug 2021 (U.S. District Court for the Northern District of California)

Date: October 2021
Assessment: Moderate
Status: Ongoing

Japan: FTC antitrust investigation into dominant position in the smartphone operating system market

In October 2021, Japan's Fair Trade Commission (FTC) started an investigation into Apple and Google, which was operated by Alphabet Inc., regarding their dominant position in the smartphone operating system market. FTC planned to involve OS operators, app developers and smartphone users, as to examine whether the companies would eliminate competition and limited consumers' options. The regulator further stated that the investigation would extend to smartwatches and other wearables.

UPDATES: 07 Oct 2021: Apple and Google under antitrust scrutiny in Japan for mobile OS. (NIKKEI ASIAN REVIEW)

Source: 07 Oct 2021 (NIKKEI ASIAN REVIEW)

Date: September 2021
Assessment: Moderate
Status: Ongoing

EU and Russian Penalty on Allegations of Abusing Dominant Market Position over Bundling of Apps in Mobile Operating System

United States and Russian regulators have launched investigations of Google, an Alphabet Inc. company, over allegations that the company abused its platform Android's dominance in mobile device operating systems to promote use of software applications for its own web services over its competitors'.

In September 2015, Russia's Federal Antimonopoly Service (FAS) found Google guilty of "abusing its dominant market position" in the bundling of application software in its mobile platform Android.

In August 2016, FAS ordered Google to pay a RUB438 million (approximately USD6.85 million) penalty. After Google appealed the ruling, FAS offered the possibility of an out-of-court settlement if there was an admission of guilt by Google and a payment of the penalty.

In April 2017, Google announced that the company would no longer restrict installation of outside search engines on Android based products in Russia as part of a settlement with FAS. The company will also create a default search engine option for Russian users with Android devices. The company also agreed to pay the penalty (approximately USD8 million) imposed by FAS in August 2016 related to anti-competitive practices.

In July 2018, the European Union (EU) imposed an anti-trust penalty of EUR 4.3 billion (approximately USD 5 billion) over the same allegations and was given 90 days to stop the practice or the company will run the risk of facing more fines.

UPDATES: 28 Sep 2021: Google defends Android OEM deals for Google Search, Chrome apps. (INDIAN EXPRESS) The company tried get EC to annul the penalty, stating licensing models enabled device manufacturers to offer a consistent and high-quality user experience.

16 Oct 2018: Google Will Charge Phone Makers to Pre-Install Apps in Europe. (The Wall Street Journal) The company stated that it plans to charge manufacturers to install its apps in smartphones sold in Europe as part of its efforts to comply with EU competition rules.

17 Jul 2018: Google Fined Record \$5 Billion by EU, Given 90 Days to Stop 'Illegal Practices'. (Bloomberg)

17 Apr 2017: Google agrees to pay \$8mn Russian antimonopoly fines. (INTELLINEWS - RUSSIA TODAY)

17 Apr 2017: Google opening Android system to settle anti-trust case with Russia. (South China Morning Post)

01 Dec 2016: Arbitration Court transfers Google's appeal lodged against FAS to intellectual property rights court. (ITAR-TASS)

16 Aug 2016: Russia fails to reach settlement with Google in Android case. (Reuters)

28 Sep 2015: Google faces FTC probe over Android dominance. (Progressive Media)

14 Sep 2015: Google Found Guilty of 'Abusing Dominant Market Position' in Russia: Russian antitrust agency will have 10 business days to issue its ruling on the case in full. (The Wall Street Journal)

Source: 28 Sep 2021 (INDIAN EXPRESS)

Date: September 2021

Assessment: Moderate

Status: Ongoing

Australia: Investigation over alleged anti-competitive behavior in the news media market resulting in harm to publishers and consumers

In December 2017, The Australian Competition and Consumer Commission (ACCC) announced a probe against Facebook and Google, a subsidiary of Alphabet Inc., over allegations of anti-competitive behavior in the news market media. The regulator indicated it would examine which platforms in commercial dealings have influenced practices and possible resultant harm to publishers, creators, and advertisers.

In July 2019, ACCC released final report on the inquiry into the impact of Google as well as other platforms over media competition. The report made 23 recommendations for an alleged tighter regulation on the advertising marketing and relevant algorithms to ensure businesses to be treated fairly and transparently.

In January 2021, Google warned that the proposed News Media Bargaining Code, which would have the companies negotiate the payments to publishers for their news content, was 'unworkable' and may lead to the withdrawal of its services in Australia.

In February 2021, Google reportedly entered into agreements with several major Australian media companies for payments for their news content and was continuing negotiations with other media companies.

UPDATES: 28 Sep 2021: Australia takes on Google's online ad dominance, calls for data shakeout. (REUTERS) ACCC published an ad tech report, stating Google's dominance of online advertising could harm publishers, advertisers and consumers.

18 Feb 2021: In Australia, Google makes publisher deals, Facebook walks. (Associated Press)

28 Jan 2021: Australia takes on Google advertising in latest Big Tech fight. (Reuters)

22 Jan 2021: Google threatens to withdraw search engine from Australia. (BBC News)

01 Sep 2020: Explainer: Facebook, Google battle Australia over proposed revenue-share law. (REUTERS UK)

26 Jul 2019: Facebook and Google face tighter rules in Australia as ACCC releases report. (The Guardian)

26 Feb 2018: Digital giants in sights of ACCC. (The Australian)

03 Dec 2017: Australia to probe Facebook, Google over media disruption. (Reuters)

Source: 28 Sep 2021 (REUTERS)

Date: September 2021

Assessment: Moderate

Status: Ongoing

Australia: Regulatory investigation on alleged anticompetitive conduct in the advertising technology sector

In September 2021, the Australian Competition and Consumer Commission (ACCC) released a report finding that Google, a subsidiary of Alphabet Inc., used its dominant positions in key parts of the advertising technology (ad tech) supply chain to give preference to its own services and shield them from competition. The ACCC estimated that over 90% of advertisement impressions traded in the supply chain has passed through at least one Google service in 2020.

According to the ACCC, the competition concerns it identified in the ad tech sector may have likely harmed publishers and advertisers through higher costs, and harmed consumers through reduced quality or quantity in advertised content. The ACCC said that it was considering specific allegations against Google under existing competition laws but noted that new regulatory solutions must be considered to restore competition to the ad sector.

UPDATES: 28 Sep 2021: Google's dominance in ad tech supply chain harms businesses and consumers. (Australian Competition and Consumer Commission)

Source: 28 Sep 2021 (Australian Competition and Consumer Commission)

Date: September 2021

Assessment: Moderate

Status: Ongoing

India: CCI investigation into alleged misuse of dominant market position by Android Operating System

Google and its group companies were under investigation by the Competition Commission of India (CCI) over alleged misuse of dominant market position by Android Operating System since April 2011. The CCI launched the investigation in April 2019 following allegations that Android blocked out other products. The regulator suspected Google, through agreements with smartphone makers, imposed restrictions on using its mobile apps and services.

In June 2020, CCI started an antitrust investigation over the position Android operating system occupied in the smart television market.

In November 2020, CCI started to look into two antitrust allegations relating to Google Play Store and Google Pay, which were the default options preinstalled on Android smartphones.

In September 2021, CCI reported that Google's Android operating system abused its dominant position in India, which reduced device manufacturers' ability and incentive to develop devices on alternative versions of Android.

UPDATES: 18 Sep 2021: CCI probe finds Google abused Android dominance. (HINDUSTAN TIMES)

09 Nov 2020: CCI to probe allegations against Google for Google Pay being preinstalled on Android phones. (HINDUSTAN TIMES)

07 Oct 2020: EXCLUSIVE-Google faces new antitrust case in India over abuse in smart TVs market-sources. (Reuters)

09 Jul 2019: How two junior researchers, a law student sparked CCI probe against Google. (Business Standard)

30 Jun 2019: Google abused Android dominance in India: Financial watchdog. (Financial World)

28 Jun 2019: Google appears to have misused India dominance: Competition watchdog. (Business Standard)

20 Jun 2019: India is slowly building a case against Google. (Economic Times of India)

Source: 18 Sep 2021 (HINDUSTAN TIMES)

Date: September 2021
Assessment: Moderate
Status: Concluded

South Korea: KFTC penalty over anti-competitive allegations relating to in-app purchase through Google Play store

In October 2020, Korea Fair Trade Commission (KFTC) started an antitrust investigation into Google, the brand operated by Alphabet Inc., over alleged abuse of its dominant market position by enforcing commission fees for in-app purchases through Google Play store. According to The Korea Times report, Google planned an updated global policy on its application store to take 30 percent of consumers' digital purchases as the company's commission fees.

In September 2021, KFTC imposed a penalty of KRW 207.4 billion (approximately USD 176 million) on Google for allegedly abusing its market dominance to limit competition in the market of operating system. According to the regulator, Google effectively prevent device manufacturers including Samsung from developing products on a modified version of the operating system, other than Google's Android system. The regulator further stated that Google forced some manufacturers to sign contracts, which required them to incorporate Google Play Store, its own app market.

UPDATES: 14 Sep 2021: Korea fines Google W207 bil. for abuse of market dominance. (KOREA TIMES)

21 Apr 2021: FTC digs into Google's disputed app billing. (KOREA HERALD)

19 Nov 2020: S. Korean lawmakers call on Google to reduce app store fees like Apple. (KOREA HERALD)

13 Oct 2020: Tax agency to fight Google in-app purchase policy '. (KOREA TIMES)

08 Oct 2020: South Korea launches probe into Google over potential fair trade violations. (KOREA TIMES)

Source: 14 Sep 2021 (KOREA TIMES)

Date: September 2021
Assessment: Moderate
Status: Ongoing

EC antitrust inquiry into potential competition issues within the Internet of Things (IoT) sector

In July 2020, the European Commission (EC) launched an antitrust inquiry into the Internet of Things (IoT) sector for consumer-related products and services within the European Union (EU). The inquiry would look into the nature and effects of possible competition issues within the sector after the EC identified indications of restrictive business practices related to data access, interoperability, and use of proprietary standards which could result to a monopoly. The EU competition commissioner cited voice assistants such as Amazon's Alexa, Apple's Siri, Deutsche Telekom's Magenta, and Google Assistant as the center of the inquiry. The commission would also send questionnaires to about 400 big and small companies based in Europe, Asia, and America that sell smart home appliances, wearables, and voice assistants to gather related information.

In September 2021, the news agency Mlex reported that EC started an investigation into Google to examine whether the company forced device makers to use Google Assistant as the default voice assistant on Android devices.

UPDATES: 10 Sep 2021: Google's voice assistant in new EU antitrust investigation, Mlex reports. (Reuters)

12 Nov 2020: Group of 165 Google critics call for swift EU antitrust action. (HINDUSTAN TIMES) A group of 165 companies and industrial bodies called for EU's investigation into Google's alleged unfair favor to its own services on the web search.

16 Jul 2020: Siri et Alexa dans le viseur de Vestager [Siri and Alexa in Vestager's viewfinder]. (Les Echos)

16 Jul 2020: Statement by Executive Vice-President Margrethe Vestager on the launch of a Sector Inquiry on the Consumer Internet of Things. (European Commission)

16 Jul 2020: Antitrust: Commission launches sector inquiry into the consumer Internet of Things (IoT). (European Commission)

Source: 10 Sep 2021 (Reuters)

Date: September 2021
Assessment: Moderate
Status: Ongoing

United States: Regulatory investigation into labor practices following alleged retaliation against employees involved in labor organizing activities

In December 2019, the National Labor Relations Board (NLRB) launched an investigation into the labor practices of Google, an Alphabet Inc subsidiary, after the dismissal of four employees allegedly actively involved in labor organizing efforts. However, the company denied the allegations and stated that the employees were dismissed due to violations in the company's data security policies. The employees planned to file lawsuits against Google over alleged retaliation for their organizing activities.

In November 2019, Google employees staged a protest outside the San Francisco office following the company's decision to put two employees into indefinite administrative leave without warning. It was alleged that the workers were involved in protests against the company. However, Google noted that the employees were put on leave due to alleged violations of company policies.

In November 2021, the Silicon Valley Business Journal reported that Google entered into a confidential settlement with one of five former employees that were allegedly terminated for exercising protected rights in June 2021. The NLRB claimed that Google retaliated against the former employees for accessing documents and calendars it made available to staff, while the company asserted that they had abused their privileged access to internal systems. A trial with the NLRB for the other four former employees were reportedly ongoing.

UPDATES: 09 Sep 2021: Google settles with fired activist employee Laurence Berland. (SILICON VALLEY BUSINESS (CALIFORNIA))

18 Dec 2019: Another engineer files complaint against Google after company fires her for coding browser pop-up with workers' rights. (SILICON VALLEY BUSINESS (CALIFORNIA))

17 Dec 2019: Fifth Google worker-activist fired in a month says company is targeting the vulnerable. (The Guardian)

12 Dec 2019: USA: Google engineers to file unfair labour practice charges against the company, following alleged 'retaliation' dismissals over workplace organising. (Business & Human Rights Resource Centre (Main))

09 Dec 2019: NLRB opens investigation into Google's labor practices after firing of four employees. (THE HILL)

05 Dec 2019: Google is hit with a new labor complaint, this time from its Ads division. (SILICON VALLEY BUSINESS (CALIFORNIA))

01 Dec 2019: Read Google's complete email over firing 4 employees. (THE TIMES OF INDIA (TOI))

26 Nov 2019: Google fires four employees, including staffer tied to protests. (South China Morning Post)

23 Nov 2019: Google workers protest company's 'brute force intimidation'. (The Sydney Morning Herald)

Source: 09 Sep 2021 (SILICON VALLEY BUSINESS (CALIFORNIA))

Date: September 2021
Assessment: Moderate
Status: Concluded

Russia: RUB 200,000 FAS penalty for alleged improper advertising relating to Google AdWord system

In September 2021, the Federal Antimonopoly Service (FAS) in Russia imposed a penalty of RUB 200,000 (approximately USD 2,806) on Google LLC, a subsidiary of Alphabet Inc., for the alleged improper advertising relating to Google AdWord system. According to the regulator, Google violated the legislation on advertising when distributing advertisement in the Google AdWords system without a license.

UPDATES: 07 Sep 2021: FAS again fined Google 200 thousand rubles for improper advertising. (TASS.RU)

Source: 07 Sep 2021 (TASS.RU)

Date: September 2021
Assessment: Moderate
Status: Concluded

France: EUR 220 million of FCA penalty for alleged abuse of dominant online advertising position

In June 2021, the French Competition Authority (FCA) imposed a penalty of EUR 220 million (approximately USD 268 million) on Google, operated by Alphabet Inc., over alleged abuse of its dominant market position in the automated online advertising industry through self-preferencing practices. According to the investigation, Google favored its own services over those provided by competitors its advertising servers and platforms. Apart from the penalty, Google also agreed to end some of the discriminated practices.

UPDATES: 06 Sep 2021: Google agrees to change advertising practices after (EURO)220 million French antitrust penalty. (COMPUTING)

07 Jun 2021: France fines Google \$267 million for abusing 'dominant position' in online advertising. (CNBC)

Source: 06 Sep 2021 (COMPUTING)

Date: July 2021
Assessment: Moderate
Status: Ongoing

Italy: USD 120 million penalty for blocking third parties from its Android Auto platform; appeal filed

In May 2021, the Italian Competition Authority (ICA) issued a USD 120 million penalty on Google, after its investigation found the company enforced restrictions that blocked third parties from its Android Auto platform. The IC stated Google abused its market position in the Italian market when it did not allow Enel Group's Enel X JuicePass application on its platform, preventing electric vehicle users from accessing its service of locating recharging stations. Aside from the penalty, the regulator ordered Google to furnish other app developers with programming tools which were interoperable with its platform. Google had reportedly allowed third parties into the platform since the ICA decision.

In July 2021, La Repubblica reported that Google said that it disagreed with the ICA's decision and planned to file an appeal against the penalty.

UPDATES: 13 Jul 2021: JuicePass, Google farà ricorso per la multa ad Android Auto. [JuicePass, Google will appeal to Android Auto for the fine] (La Repubblica)

14 May 2021: Google Fined \$120 Million In Italy For Android Auto Transgression That's Fixed . (NDTV)

14 May 2021: Italy fines Google over rival's EV recharging app. (SHANGHAI DAILY (BENCHMARK))

Source: 13 Jul 2021 (La Repubblica)

Date: June 2021
Assessment: Moderate
Status: Ongoing

Norway: Criticisms over inadequate Nynorsk language support in Google products used in schools

In February 2021, NRK reported that 108 municipalities in Norway demanded for Google to improve its written language support for Nynorsk. According to the report, schools using Google Chromebooks faced difficulties in teaching Nynorsk to students due to issues with the spelling program which changes to the written language, Bokmål, even when users select Nynorsk as their language option. Google reportedly told NRK that it was working to add more languages in their offers but could not increase support for Nynorsk in its G Suite for education at the time being.

UPDATES: 16 Jun 2021: Abid Raja meiner Google and Microsoft must offer Nynorsk and Sami. (NRK) Norway's Minster of Culture Abid Raja urged Google and Microsoft to update their services adding the languages Nynorsk and Sami.

02 Feb 2021: Stor ordførarprotest mot Google – vil at eleva får eit betre tilbod på nynorsk. [Big mayoral protest against Google - wants students to get a better offer in Nynorsk] (NRK)

Source: 16 Jun 2021 (NRK)**Date:** June 2021**Assessment:** Moderate**Status:** Ongoing**United Kingdom: Regulatory investigation into proposed changes to Google Chrome browser and potential impact on digital advertising**

In January 2021, the U.K. Competition and Markets Authority (CMA) opened an investigation into proposed privacy-related changes by Google, a subsidiary of Alphabet Inc., on its Chrome browser. The CMA was looking to determine whether the removal of third-party advertising cookies would negatively impact publishers' ability to generate revenue and distort competition in digital advertising industry.

In June 2021, CMA announced that Google submitted its commitments regarding the proposed change, stating the company would take no data advantage or preferential treatment for its own advertising products. The regulator started to consult on the commitments.

UPDATES: 11 Jun 2021: UPDATE 1-UK Competition Watchdog Secures Google Commitments on Third-party Cookies. (HAARETZ)

08 Jan 2021: CMA to investigate Google's 'Privacy Sandbox' browser changes. (U.K. Competition and Markets Authority)

Source: 11 Jun 2021 (HAARETZ)**Date:** June 2021**Assessment:** Moderate**Status:** Ongoing**Germany: Regulatory investigation into impact of market dominance, handling of user data, and Google News Showcase platform**

In May 2021, the Federal Cartel Office (Bundeskartellamt) started an investigation into Google, operated by Alphabet Inc., over its market dominance and prominence in digital services and how the company handles user data. Apart from looking into Google's operations within the new provisions of the German competition laws applicable to large digital companies, the investigation will also focus on whether the users of Google services have enough choice on how the company uses the data collected from those applications or services as well as how Google uses and process information gathered from cross-services or third-party apps and websites.

In June 2021, Bundeskartellamt opened a second investigation looking into the Google News Showcase, a licensing platform that enables participating publishers highlight certain news in the platform, whether the service discriminates among individual news publishers or uses its market position to favor certain publishers and crowd out other news publishers.

UPDATES: 04 Jun 2021: German competition authority launches probe into Googles news showcase. (Reuters)

26 May 2021: German antitrust body probes Google over data use. (XINHUA GENERAL NEWS SERVICE)

Source: 04 Jun 2021 (Reuters)**Date:** May 2021**Assessment:** Moderate**Status:** Ongoing**Australia and United States: ACCC and individual lawsuits claiming location tracking without consent**

Alphabet's Google had been involved in several individual lawsuits in the United States alleging collection and access to customer location data without consent.

In October 2019, the Australian Competition and Consumer Commission (ACCC) also filed a lawsuit against the company for the same allegations. Moreover, the lawsuit alleged that Google continued to collect geolocation information after location settings had been turned off. Google noted that it was looking into the allegations.

In April 2021, Australia's Federal Court concluded that Google misled some Android users by mispresenting the location history setting as the single channel that affected the collection of users' identifiable location information. However, another setting called "Web & App Activity" could also collect, store and use the location data if not turned off, according to ACCC's investigation.

UPDATES: 29 May 2021: 'Apple is eating our lunch': Google employees admit in lawsuit that the company made it nearly impossible for users to keep their location private. (BUSINESS INSIDER)

16 Apr 2021: Google facing fines in the 'many millions' for misleading some Australian users. (ABC ONLINE)

16 Apr 2021: Google 'partially' misled consumers over collecting location data, Australian court finds. (THE GUARDIAN)

02 Oct 2020: Google Accused Of Strategically Hiding Evidence In Data Suit. (LAW360)

01 Sep 2020: Google Again Seeks Toss Of Users' Secret Tracking Suit. (LAW360)

20 Jul 2020: Arizona tackles Google over location data. (THE AUSTRALIAN ONLINE)

28 May 2020: Arizona Sues Google Over 'Deceptive' Location Tracking. (New York Times) In May 2020, the Attorney General in Arizona filed lawsuit against Google, alleging its apps tracked users' location data when the tracking option was turned off.

04 Feb 2020: Ireland launches probe into Google's use of location data. (CNBC)

19 Dec 2019: In re: Google Location History Litigation, No. 5:2018cv05062. (California Northern District Court) In April 2020, the U.S. District Court for the Northern District of California granted motion to dismiss the location tracking litigation involved Google.

19 Dec 2019: Google Gets Location Tracking Privacy Suit Tossed For Now. (LAW360)

29 Oct 2019: Australian consumer watchdog sues Google over location data; Australian consumer watchdog sues Google over location data. (THE CANADIAN PRESS)

29 Apr 2019: In re: Google Location History Litigation, No. 5:2018cv05062. (California Northern District Court)

08 Nov 2018: Lundy et al v. Facebook Inc. et al. (California Northern District Court)

Source: 29 May 2021 (BUSINESS INSIDER)

Date: May 2021
Assessment: Moderate
Status: Ongoing

Ukraine: UAH 1 million of antitrust penalty over alleged failure to provide information for investigation

In April 2021, the Ukraine's Provisional Administrative Board of the Antimonopoly Committee imposed a penalty of UAH 1 million (approximately USD 36,037) on Google LLC, which was operated by Alphabet Inc., over alleged failure to provide information requested by antimonopoly investigation for more than one year. The regulator further explained that the investigation was into allegations of Google's blocking complainants' account in its Google My Business application.

UPDATES: 20 May 2021: Google Ukraine Pays UAH 1 Million Fine For Failure To Provide Information - AMCU. (UKRAINIAN NEWS AGENCY)

05 Apr 2021: Antimonopoly Committee Fines Google Ukraine UAH 1 Million For Failing To Provide Information. (UKRAINIAN NEWS AGENCY)

Source: 20 May 2021 (UKRAINIAN NEWS AGENCY); 05 Apr 2021 (UKRAINIAN NEWS AGENCY)

Date: May 2021
Assessment: Moderate
Status: Ongoing

California, United States: USD 1.5 million of settlement to proposed class action lawsuit over alleged failure to provide meal and rest breaks

In February 2021, Alphabet Inc.'s Google LLC and its staffing agency Vaco Technology agreed to pay USD 1.5 million to settle a proposed class action lawsuit filed by technology workers over alleged unpaid working hours, unpaid overtime, and failure to provide meal and rest breaks. According to the court filings, approximately 217 class members who worked for Google's educational virtual reality technology projects were included in the lawsuit.

UPDATES: 01 May 2021: No new information available.

22 Feb 2021: Google, Staffing Co. to Pay \$1.5M to Settle Wage Suit. (LAW360)

22 Feb 2021: Bush v. Vaco Technology Services, LLC et al, 5:17-cv-05605. (U.S. District Court for the Northern District of California)

Source: 22 Feb 2021 (LAW360)

Date: April 2021
Assessment: Moderate
Status: Ongoing

Russia: FAS filed a case over alleged abuse of dominant position in YouTube video hosting

In April 2021, Russia's Federal Antimonopoly Service (FAS) filed a case against Google LLC, which operated by Alphabet Inc., over alleged abuse of YouTube's dominant position in the video hosting market. According to the regulator, the relevant investigation started after receiving complaints from a Regional Public Organization ROCIT, which claimed sudden blocks and deletion of user accounts as well as content on YouTube video hosting. The regulator further stated that Google's actions might lead to infringement of interests of users and limit the market competition.

UPDATES: 19 Apr 2021: Russian competition watchdog opens case against Google over YouTube curbs. (Reuters)

Source: 19 Apr 2021 (Reuters)

Date: April 2021
Assessment: Moderate
Status: Ongoing

Turkey: Competition Authority investigation into alleged violation of search algorithm and targeted advertising

In January 2019, Turkey's competition authority launched a probe on whether Google's search system and advertising platform violated competition regulations. In particular, the investigation intends to determine if the company abused its dominant position in online search. Google is an Alphabet company.

In February 2020, the Turkish Competition Authority (TCA) levied a TRY 98.4 million (USD 16.3 million) penalty against Google and its subsidiary Google Reklamcilik ve Pazarlama over allegations of abuse of dominant market position that affected fair market competition. According to the TCA, Google was allegedly involved in trying to suppress smaller competitors.

In November 2020, TCA imposed another penalty of TRY 196.7 million (approximately USD 25.2 million) on Google over alleged abuse of market dominance in online searches. The regulator stated that companies were difficult to show up in Google's search results if contributing no advertisement revenue for Google. TCA also asked Google to take remedial measures within six months.

In April 2021, the Turkey's Competition Board announce in a statement that it had imposed penalties of more than TRY 296 million (approximately USD 36.7 million) on Google over the company's abuse of dominant position in search engine services. More specifically, the regulator stated that Google gave more advantages to its own services over those from competitors in terms of price comparison and searches for travel and accommodation options. Google was required to take remedial measures within six months.

UPDATES: 15 Apr 2021: Turkey fines Google for abusing dominant position. (Reuters)

13 Nov 2020: Turkey fines Google for abusing market dominance. (Martinsville Bulletin)

17 Feb 2020: Turkey fines Google \$16mn for violating competition rules. (INTELLINEWS - TURKEY TODAY)

16 Dec 2019: Google Suspends Services for New Android Phones in Turkey Amid Competition Law Dispute – Report. (RIA Novosti)

07 Jan 2019: Turkey to investigate whether Google violated competition law. (Reuters)

Source: 15 April 2021 (Reuters)

Date: April 2021
Assessment: Moderate
Status: Concluded

South Carolina: Settlement to lawsuit filed by worker union on behalf of contractor over alleged wrongful suspension

In February 2021, the Alphabet Workers Union filed a lawsuit on behalf of a contractor against Alphabet Inc. and its subcontracted data center Modis over alleged wrongful suspension due to violation of the non-disclosure agreement. According to the lawsuit, contractors in the data center were not allowed to discuss about wages, bonuses and working conditions, as such the contractor was asked to suspend the work after posting a complaint on Facebook.

In March 2021, Alphabet, the data center Modis reached a settlement with the Alphabet Workers Union to reverse the suspension. Alphabet further signed a document that allowed discussion on compensation and working conditions among employees.

UPDATES: 31 Mar 2021: Google settles with labor board in win for new union. (MORNINGSTAR.COM)

01 Apr 2021: Google, NLRB Reach Deal On Alphabet Union's Labor Charge. (LAW360)

Source: 08 Apr 2021 (BBC)

Date: February 2021
Assessment: Moderate
Status: Concluded

France: EUR 1.1 million penalty over alleged misleading hotel ratings in Google search results

In February 2021, two Alphabet Inc. subsidiaries, Google Ireland Ltd. and Google France (collectively, Google), agreed to pay EUR 1.1 million (approximately USD 1.3 million) to settle allegations by the French General Directorate for Competition Policy, Consumer Affairs and Fraud Control (DGCCRF) regarding its display of misleading hotel ratings in its Google search engines. According to the DGCCRF, the hotel ratings for over 7,500 hotels that were shown in Google's search results were based on the company's own automated criteria as opposed to the official rating system provided by the country's tourism development agency, Atout France. Google has since corrected the practice shortly after the start of the DGCCRF investigation in September 2019.

UPDATES: 15 Feb 2021: Classement trompeur des hébergements touristiques par Google : une enquête de la DGCCRF conduit au paiement d'une amende transactionnelle de 1,1M€ [Misleading classification of tourist accommodation by Google: a DGCCRF investigation leads to the payment of a transaction fine of € 1.1M]. (Direction générale de la concurrence, de la consommation et de la répression des fraudes)

Source: 15 Feb 2021 (Direction générale de la concurrence, de la consommation et de la répression des fraudes)

Date: December 2020
Assessment: Moderate
Status: Ongoing

Pakistan: PTA notice for removing alleged unlawful religious content on Google products

In December 2020, the Pakistan Telecommunication Authority (PTA) sent a notice to Alphabet Inc.'s subsidiary Google for removing alleged unlawful religious content on platforms including Google Play Store. PTA stated that it received multiple complaints regarding misleading or deceptive information about religious texts and leaders. The regulator further warned actions under Prevention of Electronic Crimes Act 2016 (PECA) and Rules 2020 if Google failed to be compliant with the requirement.

UPDATES: 26 Dec 2020: Pakistan threatens Google, Wikipedia over 'sacrilegious content'. (The Indian Express)

Source: 26 Dec 2020 (The Indian Express)

Date: December 2020
Assessment: Moderate
Status: Ongoing

South Korea: Communications regulator requested report on alleged service outage

In December 2020, the Ministry of Science and ICT of the South Korea requested Google, which was operated by Alphabet, Inc., to submit a report under the revised telecommunication act, about the company's alleged service outage that impacted Korean users for approximately 45 minutes. The regulator asked Google to notify local users about the service outage, beside the Twitter statement that written in English.

UPDATES: 15 Dec 2020: South Korea asks Google to submit report on global outage. (The Economic Times)

14 Dec 2020: Google's YouTube, Gmail and other services reported down in U.S. and elsewhere. (MORNINGSTAR.COM)

Source: 15 Dec 2020 (The Economic Times)

Date: December 2020
Assessment: Moderate
Status: Concluded

France: EUR 100 million penalty over alleged unauthorized use of advertising cookies on website

In December 2020, the National Commission on Informatics and Liberty of France (CNIL) imposed EUR 100 million (approximately USD 42 million) in total penalties on Google LLC and Google Ireland Limited, subsidiaries of Alphabet Inc., over their alleged unauthorized use of cookies on their website. According to the CNIL, the google.fr website automatically placed cookies in users' computers without prior consent and did not adequately inform users of the cookies' placement, its purpose, or how to refuse them. The CNIL also found that the user option to disable personalized advertisements failed to remove one of the said cookies.

UPDATES: 10 Dec 2020: Cookies: financial penalties of 60 million euros against the company GOOGLE LLC and of 40 million euros against the company GOOGLE IRELAND LIMITED. (Commission Nationale de l'Informatique et des Libertés)

Source: 10 Dec 2020 (Commission Nationale de l'Informatique et des Libertés)

Date: October 2020
Assessment: Moderate
Status: Ongoing

Italy: Regulator investigation into alleged unfair commercial practices and unfair clauses in contracts

In September 2020, the Italian Competition Authority (AGCM) opened an investigation into the alleged unfair commercial practices of companies providing cloud storage services including Google, a subsidiary of Alphabet Inc. The AGCM was looking into potential inadequate disclosure on the collection and commercial use of customer data and presence of unfair conditions in the terms of service with regards to its Google Drive services.

The other companies under regulatory investigation include Apple and Dropbox.

In October 2020, AGCM opened a separate investigation into Google over alleged abuse of dominant market position relating to the availability and use of data for designing advertising campaigns to users. The regulator stated in a press release that the company engaged in discriminatory conduct that prevented other service providers from competing effectively in the online advertising markets.

UPDATES: 28 Oct 2020: Italy opens new Google probe into ad market dominance. (TELECOMPAPER)

07 Sep 2020: CV194-CV195-CV196-PS11147-PS11149-PS11150 - Avviate istruttorie nei confronti di Google, Apple e Dropbox per i servizi di cloud computing. [Investigation initiated against Google, Apple and Dropbox for cloud computing services]. (Autorita Garante della Concorrenza e del Mercato)

Source: 07 Sep 2020 (Autorita Garante della Concorrenza e del Mercato)

Date: October 2020
Assessment: Moderate
Status: Ongoing

Russia: Regulator demand to stop censorship of Russian content

In October 2020, Russia's telecommunication regulator Roskomnadzor sent an official demand to social media companies, including Facebook, Inc., to stop their alleged censorship Russian-produced content, including a documentary about the 2004 Beslan school siege. The official demand came after the Moscow Attorney General filed a lawsuit against the media platforms claiming that the restrictions were an act of censorship.

Other companies allegedly involved were Alphabet Inc. and Twitter Inc.

UPDATES: 28 Oct 2020: Russian Media Watchdog Tells Facebook, Twitter, Google to Stop Censorship of Russian Media. (SPUTNIK NEWS SERVICE)

Source: 28 Oct 2020 (SPUTNIK NEWS SERVICE)

Date: September 2020
Assessment: Moderate
Status: Ongoing

United Kingdom: Class action lawsuit over alleged breach of children's privacy in video platform

In September 2020, a concerned parent filed a class action lawsuit in the U.K. High Court against YouTube, a subsidiary of Alphabet, over its alleged breach of privacy and data protection rights of children under the age of 13. The plaintiff sought EUR 2 billion (approximately USD 2.7 billion) in estimated damages for approximately five million children and their guardians in the U.K. for the alleged breach of U.K.'s Data Protection Act and the EU's General Data Protection Regulations.

UPDATES: 13 Sep 2020: YouTube faces legal battle over British children's privacy. (BBC News)

Source: 13 Sep 2020 (BBC News)

Date: August 2020
Assessment: Moderate
Status: Ongoing

Customer complaints over alleged connectivity and other related issues in Google Pixel Bud wireless earphones

In June 2020, media reports suggest that hundreds of customers have reported audio connectivity and uneven battery drain issues with their Google Pixel Buds wireless earphones, product by a subsidiary of Alphabet Inc. The company said that it was looking to fix the issues.

UPDATES: 26 Aug 2020: Google Pixel Bud Owners Angry at Continued Problems Despite Update. (FORBES.COM)

05 Jun 2020: "Unusable" Pixel Buds Receive Hundreds of Complaints as Google Investigates. (FORBES.COM)

Source: 26 Aug 2020 (FORBES.COM)

Date: August 2020
Assessment: Moderate
Status: Ongoing

Australia: Investigation into alleged misrepresentation of use of personal information related to internet activity

In July 2020, the Australian Competition and Consumer Commission (ACCC) launched court proceedings against Google LLC, a subsidiary of Alphabet Inc., over its alleged failure to properly gain explicit informed consent regarding the scope of personal information it collected and used from their internet activities from at least June 2016 to December 2018. The ACCC purported that Google had combined users' online activities on third-party sites with their identifying information on their Google accounts to improve its targeted advertising business.

UPDATES: 17 Aug 2020: UPDATE 1-Google goes public with rebuke on Australia antitrust law. (REUTERS UK)

27 Jul 2020: Correction: ACCC alleges Google misled consumers about expanded use of personal data. (Australia- Australian Competition and Consumer Commission)

Source: 17 Aug 2020 (REUTERS UK)

Date: May 2020
Assessment: Moderate
Status: Ongoing

Criticism over possible launch of censored search engine in China

In August 2018, multiple human rights groups and employees of Google, a subsidiary of Alphabet Inc., criticized Google's plan to launch a censored search engine application reportedly code named as Dragonfly Project. The search engine reportedly will be censored according to China's censorship rules blocking websites and search terms deemed criticizing the Chinese government. Critics and human rights group argued the move is enabling China's repressive government in curtailing human rights to gain market access for profits. Google employees likewise criticized the move as contrary to their personal and Google's ethical code and the secrecy of the project prompting 1,400 employees to sign a petition demanding for more answers.

Between 2006 and 2010, after 4 years of complying with China's censorship rules with its desktop version, triggered by allegations of cyberattacks in 2010, Google decided to remove censorship and redirected google.cn to google.com.hk, which gave search results without censorship, effectively discontinuing the censored China-version of the search engine. The company received the same criticisms before it decided to discontinue the local search engine at that time.

UPDATES: 27 May 2020: Senator Hawley Demands Google Explain Continued Censorship of Criticism of CCP. (Office of Missouri Senator Josh Hawley)

02 Jan 2020: Former Google human rights chief says he was 'sidelined' over censored Chinese search engine. (The Verge)

27 Nov 2018: Google employees call on firm to abandon plans for a censored search engine in China. (The Telegraph, UK)

26 Sep 2018: Senator Hassan Presses Google Representative on Reports the Company is Working on a Search Engine for China. (Office of New Hampshire Senator Maggie Hassan)

18 Aug 2018: Google Executives Misled Staff in Meeting on China Censorship. Here Are 13 Questions They Must Answer. (The Intercept)

17 Aug 2018: The employee backlash over Google's censored search engine for China, explained. (Vox)

01 Aug 2018: Google Plans to Launch Censored Search Engine in China, Leaked Documents Reveal. (The Intercept)

Source: 27 May 2020 (Office of Missouri Senator Josh Hawley)

Date: May 2020
Assessment: Moderate
Status: Ongoing

Alleged improper handling of offensive and threatening content

Google, Inc. (an Alphabet, Inc. company), along with other social media companies, has faced lawsuits and regulatory criticisms over their alleged weakness in monitoring offensive content on their platforms. In 2017, regulatory bodies from Austria, Thailand, Indonesia, the UK, and European Union sent warnings to several social media companies for purportedly not having sufficient policies to screen and remove offensive and threatening content in a timely manner. The companies were warned of possible regulatory penalties if the content was not removed.

In December 2016, three families of Orlando terrorist victims filed a lawsuit in a US court against three social media companies, including Google, over their alleged failure to remove a threatening post in a timely manner that resulted in enabling the attacker and related terrorist organizations. A federal judge, however, dismissed the lawsuit with prejudice in 2018.

In March 2018, the European Commission sent warnings to social media companies to remove threatening material or terrorist propaganda within an hour or face possible EU-wide regulations.

In March 2019, several large investors in New Zealand prompted social media websites to provide tighter regulations on violence-related content published on social media platforms. The call to take action was due to extremist or violent content published after alleged terror attacks in Christchurch.

The social media companies purportedly involved were Facebook and its subsidiary WhatsApp, Google, TikTok, and Twitter.

UPDATES: 26 May 2020: Social media fines proposed. (THE NEW ZEALAND HERALD)

21 Mar 2019: NZ challenge to Facebook, Google and Twitter over violent content. (Financial Times)

01 Mar 2018: Remove terror content in 1 hour or else, EU warns tech giants. (LiveMint)

07 Nov 2017: After WhatsApp threat, Indonesia steps up Internet obscenity purge. (Reuters)

19 Sep 2017: Google, Facebook and Twitter told to take down terror content within two hours or face fines. (TELEGRAPH.CO.UK)

16 Sep 2017: Major Sites Face Rebuke For Ads Tied To Racism. (THE NEW YORK TIMES)

02 May 2017: UK warns Internet giants about hate. (Taipei Times - Business)

18 Mar 2017: MPs accuse Google of cashing in on hate over online adverts. (THE HERALD (GLASGOW))

17 Mar 2017: EU authorities demand changes from Facebook, Google, Twitter. (GulfNews)

21 Dec 2016: Orlando victims' families sue Twitter, Google and Facebook. (EJ INSIGHT)

Source: 26 May 2020 (THE NEW ZEALAND HERALD); 21 Mar 2019_Financial Times

Date: April 2020
Assessment: Moderate
Status: Ongoing

Russia: Alleged violation against the advertising law in relation to narcotic substances

In April 2020, Russia's Federal Antimonopoly Service of Russia (FAS) cited Yandex NV, iHerb, and Alphabet subsidiary Google Inc for allegedly violating Russia's advertisement laws. According to FAS and the Union of Dietary Supplemental Producers Self-Regulatory Organization, Google and Yandex platforms distributed advertisements for iHerb products that reportedly contained highly hazardous chemicals, psychotropic and narcotic substances.

UPDATES: 20 Apr 2020: FAS IN THE MEDIA: FAS OPENED A CASE AGAINST IHERB OVER ADVERTISING ON GOOGLE AND YANDEX. (Federal Antimonopoly Service of Russia)

Source: 20 Apr 2020 (Federal Antimonopoly Service of Russia)

Date: March 2020
Assessment: Moderate
Status: Ongoing

Xinjiang region: Allegations of subjecting Uyghurs to forced labor in factories

In March 2020, Australian Strategic Policy Institute reported that Alphabet Inc.'s suppliers Foxconn Technology, an electronics manufacturer, Hefei Bitland Information Technology Co. Ltd, another electronics manufacturer, and Hubei Yihong Precision Manufacturing Co., Ltd, an electronics precision parts manufacturer, allegedly employed Uyghur or Uighur (a Muslim minority group in Xinjiang, China) workers who were part of the Chinese government's labor transfer programs.

According to various reports, since 2017, more than one million Uighurs, Kazakhs and other ethnic minorities have been detained in 're-education camps'. The camps were reportedly being monitored by cameras, guarded by armed police and walled with barbed wires. In addition, the reports cited allegations that the Uighurs were forced to carry out manual labor in the camps for various production supply chains that provide raw materials allegedly sourced by a number of manufacturing and retail companies globally.

UPDATES: 01 Mar 2020: Uyghurs for Sale: 'Re-education', forced labour and surveillance beyond Xinjiang. (Australian Strategic Policy Institute)

Source: 01 Mar 2020_Australian Strategic Policy Institute

Date: October 2019
Assessment: Moderate
Status: Ongoing

Atlanta, United States: Allegations of Scanning Faces of Dark-Skinned Homeless People to Improve Facial Recognition Technology

In October 2019, the city of Atlanta sent a letter to Google, an Alphabet subsidiary, to seek explanations regarding a news report alleging that the company hired contractors to do face scans of dark-skinned homeless people because of lower odds of speaking to the media. Moreover, the scans were done in order to improve Google's facial recognition technology for unlocking mobile phones.

Google stated that they were taking the claims seriously, and that the company hired contractors to scan faces of volunteers. In addition, the company wanted to collect diverse samples of faces to improve their software but the research was suspended and internal investigation was launched following the allegations. Further, the company noted that the facial scans were encrypted and would be deleted once the research is completed.

UPDATES: 04 Oct 2019: Atlanta Asks Google Whether It Targeted Black Homeless People. (The New York Times)

Source: 04 Oct 2019_The New York Times

Date: August 2019
Assessment: Moderate
Status: Ongoing

Chicago, United States: Potential class action lawsuit over alleged use of identifiable patient data without permission

Google Inc., an Alphabet company, has faced a potential class-action lawsuit over alleged use of identifiable patient data without permission. Google allegedly obtained electronic health record (EHR) data of more than 216,000 patients from the University of Chicago to train machines for disease diagnosis. According to the lawsuit, those data sets included identifiable patient information such as check-in dates and medical diagnoses. Neither Google or the university received consent from patients.

UPDATES: 12 Aug 2019: No new information available.

01 Jul 2019: Google is partnering with hospitals to build better diagnostic algorithms. But is it violating patient privacy?. (AMERICAN HEALTH LINE)

28 Jun 2019: Google, University of Chicago face class action lawsuit following health data sharing partnership. (MobiHealthNews)

26 Jun 2019: Google and the University of Chicago Are Sued Over Data Sharing. (The New York Times)

Source: 01 Jul 2019 (AMERICAN HEALTH LINE)

Date: August 2019
Assessment: Moderate
Status: Ongoing

Contractors demand better pay and benefits

In December 2018, a group of temporary vendor and contract (TVC) workers at Google sent a letter to the company's CEO, demanding better work conditions, pay, and benefits. A separate group of Google's own employees expressed support for the TVCs demands, noting that despite doing similar jobs and working in the same projects and teams, TVCs are not afforded the same benefits as those of full-time employees. The Guardian also detailed some anecdotal evidence on unequal treatment between full-time employees and TVCs. Actual numbers of TVCs who align with the demand is unknown.

In March 2019, more than 900 Google employees, including full-time employees signed a petition against management policy on the treatment of TVCs after 34 had contracts abruptly terminated around different Google offices.

In April 2019, Google announced that it would require these workers to receive the minimum of USD 15 an hour by 2020 and other benefits by 2022.

UPDATES: 05 Aug 2019: Senators Urge Google to Give Temporary Workers Full-Time Status. (The New York Times)

11 Apr 2019: Google will require temp workers receive \$15 minimum wage & parental leave. (Business & Human Rights Resource Centre (Main))

02 Apr 2019: Google to require benefits, minimum wage for contractors. (Associated Press)

02 Apr 2019: Google staff condemn treatment of temp workers in 'historic' show of solidarity. (The Guardian)

12 Dec 2018: Revealed: Google's 'two-tier' workforce training document. (The Guardian)

07 Dec 2018: Google's contractors accuse CEO of creating unequal workforce: They want paid sick days, good salaries, and the same perks that employees get. (Vox)

Source: 05 Aug 2019 (The New York Times)

Date: June 2019
Assessment: Moderate
Status: Ongoing

Europe, Google Inc: Complaints about Alleged Privacy Violation in Real-time Bidding

Google Inc., an Alphabet company, has faced complaints filed in multiple EU countries over alleged privacy violation in online advertising. The company's real-time bidding advertising system allegedly disclosed users' personal data to at least hundreds of companies or advertisers, which might breach the data protection regulation in the EU.

UPDATES: 07 Jun 2019: UE : 10 pays portent plainte contre Google auprès des autorités de protection des données au sujet des publicités ciblées [EU: 10 countries file lawsuit against Google with data protection authorities over targeted ads]. (Business & Human Rights Resource Centre (Main))

05 Jun 2019: Google faces privacy complaints in European countries. (EURACTIV)

Source: 07 Jun 2019_Business & Human Rights Resource Centre (Main)

Date: May 2019
Assessment: Moderate
Status: Ongoing

Ireland: DPC Investigation for Alleged Violation of EU Privacy Rules

In May 2019, the Data Protection Commission (DPC) of Ireland opened investigation into Google, an Alphabet Inc. company, for alleged infringement of European privacy rules by processing customers' personal data. According to the regulator, the investigation focused on whether Google's Ad Exchange system, the platform where companies targeted customers for online advertising, was in compliance with European's General Data Protection Regulation (GDPR).

UPDATES: 23 May 2019: Data watchdog opens investigation into Google. (THE IRISH TIMES)

22 May 2019: Google's Ad Exchange faces privacy probe by Irish regulator. (BBC News)

Source: 23 May 2019_THE IRISH TIMES; 22 May 2019_BBC News

Date: May 2019
Assessment: Moderate
Status: Ongoing

Italy: Regulator Investigation into Alleged Antitrust Abuse in Smart Device Sector

In May 2019, the competition regulator of Italy opened an investigation into Google, an Alphabet Inc. company, for alleged abuse of its dominant position in the smart device operating system market. According to the regulator, Google refused to integrated Enel's app Enel X Recharge into its Android Auto app.

UPDATES: 17 May 2019: Italy's watchdog investigates Google for alleged antitrust abuse. (Reuters)

Source: 17 May 2019_Reuters

Date: May 2019**Assessment:** Moderate**Status:** Ongoing**Google Android: EU, Turkey, and India Regulatory Investigations into Anti-Competitive Violations Related to Mobile Platform**

In March 2017, European Union and the Turkish Competition Authority opened an investigation of Google, Inc., an Alphabet, Inc. company, over allegations of possible violations of competition laws regarding its Android mobile operating system. Authorities were acting upon complaints that claimed Google engaged in unfair practices in the manner it gave access to Android services.

In July 2018, the EU found Google to have violated competition laws with its Android platform and ordered the company to pay EUR 4.3 billion (approximately USD 4.9 billion) as penalty. In October 2018, the company stated that it plans to appeal the penalty.

In March 2019, the EU Competition Commissioner planned to announce another settlement amount following an investigation into the allegations.

In May 2019, the Competition Commission of India (CCI) ordered an investigation over allegations of abuse of dominant position regarding its Android mobile operating system which could pose an unfair advantage to rivals.

UPDATES: 10 May 2019: Exclusive: India orders anti-trust probe of Google for alleged Android abuse - sources. (Reuters)

18 Apr 2019: Google offers smartphone users rival search engines in bid to end antitrust concerns. (TELEGRAPH.CO.UK)

16 Mar 2019: Margrethe Vestager to hit Google with another fine. (Financial Times)

09 Oct 2018: Google set to appeal against EU's €4bn Android fine. (Financial Times)

15 Aug 2018: Brazil may probe Google over its cell phone system: report. (Channel NewsAsia)

15 Aug 2018: Brazil may probe Google over its cell phone system: report. (Reuters)

18 Jul 2018: EU fines Google record €4.3bn over Android: Brussels penalises US group for abusing dominance in mobile operating systems. (Financial Times)

07 Mar 2017: Google Faces New EU Complaint Over Android. (WSJ)

07 Mar 2017: Turkey Opens Antitrust Inquiry Into Google And Android OS. (PYMNTS.com)

Source: 10 May 2019 (Reuters)

Date: May 2019**Assessment:** Moderate**Status:** Ongoing**Worker Sit-In Protest Due to Alleged Retaliation against Employee Participation in Organized Strikes**

In May 2019, employees of Google, a subsidiary of Alphabet, organized a sit-in protest due to the company's alleged retaliation against internal and external businesses conducted by employees such as protests or strikes. Moreover, the protest was also the sixth-month anniversary of one of the biggest company walkouts in response to the handling of sexual harassment allegations in November 2018. Two organizers of the walkout experienced alleged retaliation when the company asked them to give up work and when told that they will be demoted.

UPDATES: 02 May 2019: Google employees sit-in to protest against retaliation, Facebook staff also join. (LiveMint)

Source: 02 May 2019_LiveMint

Date: March 2019**Assessment:** Moderate**Status:** Ongoing**United States: Lawsuit over alleged scanning of e-mails in Gmail platform for targeted advertising**

In September 2013, Google, an Alphabet Inc. company, asked a District Court judge in San Jose California to dismiss a lawsuit claiming that the company violated anti-wiretap laws with its Gmail e-mail service. The plaintiffs claimed that the company read e-mails to produce targeted advertising. In March 2014, the judge dismissed the plaintiffs' request that the lawsuit be classified as a class but allows the lawsuit to move forward.

In March 2019, the Superior Court of California rejected the company's request to deny class certification over the alleged scanning and analyzing of customer's e-mails in their Gmail platform for advertising purposes following the agreement of several parties to consolidate cases in November 2018.

UPDATES: 05 Mar 2019: No new information available.

24 Dec 2018: Gmail Scanning Suit Proceeds In California. (MediaPost)

20 Mar 2014: Judge tosses class-action push for Google suit. (The Seattle Times)

05 Sep 2013: Google argues to continue scanning Gmail for ads. (San Francisco Business Times)

Source: 24 Dec 2018 (MediaPost)

Date: February 2019**Assessment:** Moderate**Status:** Ongoing**United Kingdom: Investigation into Alleged Privacy Law Violations**

In February 2019, United Kingdom's Central Information Commission (CIC) initiated investigations against Alphabet Inc over its alleged involvement in potential breaches of customer privacy laws, specifically, the European Union's General Data Protection Regulation (GDPR). The CIC claimed, it has received several reports of alleged unauthorized data collection and utilization of customer data and other alleged GDPR violations in the UK. According to the CIC, Alphabet Inc could be facing a potential penalty of approximately EUR 3.1 billion (USD 4 billion) over its alleged violations of the GDPR, which was legislated and enacted in the year 2018.

UPDATES: 04 Feb 2019: Britain's data watchdog to investigate Google over privacy concerns. (TELEGRAPH.CO.UK)

Source: 04 Feb 2019_TELEGRAPH.CO.UK

Minor Controversies

Date: December 2021**Assessment:** Minor
Status: Concluded**New Mexico, US: State attorney general's lawsuit over alleged collection of school children data without parental consent; settlement reached**

UPDATES: 13 Dec 2021: Attorney General Hector Balderas Announces Landmark Settlements with Google Over Children's Online Privacy. (New Mexico Attorney General)

29 Sep 2021: NM Renews Fight Over Google's Data Collection In Schools. (LAW360)

05 Oct 2020: Balderas v. Google LLC, 1:20-cv-00143. (U.S. District Court for the District of New Mexico)

13 Mar 2020: Google Education products violate children's privacy rights, says New Mexico. (American Association for Justice)

20 Feb 2020: UPDATE 2-New Mexico AG sues Google for collecting school kids' personal data. (Reuters)

Source: 13 Dec 2021 (New Mexico Attorney General)**Date:** November 2021**Assessment:** Minor
Status: Ongoing**Report alleging Google Chrome web browser collected and shared mobile device users' motion sensor data without consumers' knowledge**

UPDATES: 08 Nov 2021: Google Chrome Reportedly Shares Sensitive Data Without Consumers' Knowledge; Experts Advise Users To Uninstall Browser ASAP. (INTERNATIONAL BUSINESS TIMES)

Source: 08 Nov 2021 (INTERNATIONAL BUSINESS TIMES)**Date:** November 2021**Assessment:** Minor
Status: Concluded**Uzbekistan: YouTube access speed restricted over noncompliance with personal data storage laws; restrictions lifted**

In November 2021, the head of the telecommunications regulator of Uzbekistan, Uzkomnazorat, reportedly decided to restrict internet access speeds to several social media networks including YouTube, which is owned by Alphabet Inc., after saying that the online platforms failed to comply with new laws requiring personal data of Uzbek users to be stored in local servers. However, Reuters later reported that an Uzkomnazorat spokesperson said that access would be restored after the Uzbek president fired the regulator's head.

UPDATES: 04 Nov 2021: Uzbek telecoms tsar fired after restricting social network access. (Reuters)

03 Nov 2021: Uzbekistan cuts speed of access to Facebook, YouTube over data law. (National Post)

Source: 04 Nov 2021 (Reuters)**Date:** October 2021**Assessment:** Minor
Status: Ongoing**California, United States: Employee filed lawsuit over alleged pregnancy discrimination and retaliation**

UPDATES: 26 Oct 2021: I sought therapy after my boss at Google discriminated against me. I used a 3rd-party therapist through the company and it was a decision I will forever regret. (BUSINESS INSIDER)

Source: 26 Oct 2021 (BUSINESS INSIDER)**Date:** October 2021**Assessment:** Minor
Status: Ongoing**United States: Lawsuits alleging violation of the Biometric Information Privacy Act (BIPA) from facial recognition technology in Google Photos**

UPDATES: 22 Oct 2021: GOOGLE INC: Northern District of Illinois Stays Rivera BIPA Suit. (CLASS ACTION REPORTER)

06 Sep 2021: United States Courts Opinions: UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS: LINDABETH RIVERA and JOSEPH WEISS, on behalf of themselves and all others similarly situated Plaintiffs, v. GOOGLE, INC., Defendant. (IMPACT NEWS SERVICE)

13 Feb 2021: Google Gets Pause In Biometric Suit Over Face ID 'Arms Race'. (LAW360)

29 Jul 2020: Marquez v. Google LLC, 1:20-cv-04454. (U.S. District Court for The Northern District of Illinois)

10 Jun 2020: Calderon v. Google LLC, 5:20-cv-01264. (U.S. District Court for the Northern District of California)

07 Feb 2020: Google Accused Of Collecting User 'Face Prints' From Photos. (LAW360)

26 Sep 2019: Azzano v. Google LLC, 2019CH11153. (The Circuit Court of Cook County, Illinois)

19 Jun 2019: Rivera v. Google LLC., 1:16-cv-02714. (U.S. District Court for the Northern District of Illinois)

Source: 22 Oct 2021 (CLASS ACTION REPORTER)**Date:** October 2021**Assessment:** Minor
Status: Ongoing**California, United States: Animal rights group filed lawsuit over alleged failure to remove animal abuse videos on YouTube**

UPDATES: 19 Oct 2021: YouTube Sued Over Animal Abuse Videos, Accused of Not Enforcing Ban. (THE NEW YORK TIMES)

Source: 19 Oct 2021 (THE NEW YORK TIMES)**Date:** October 2021**Assessment:** Minor
Status: Ongoing**California, United States: Employees filed lawsuit over alleged confidentiality policy that restricted workers to talk about wages and working conditions**

UPDATES: 15 Oct 2021: The Supreme Court gave the green light to a lawsuit by a group of Google workers over the tech giant's confidentiality policy. (SILICON VALLEY BUSINESS (CALIFORNIA))

Source: 15 Oct 2021 (SILICON VALLEY BUSINESS (CALIFORNIA))

Date: October 2021**Assessment:** Minor**Status:** Ongoing**Project Nimbus: Employees' criticism against cloud service contracts with Israeli government due to potential use for surveillance of Palestinians**

UPDATES: 12 Oct 2021: We are Google and Amazon workers. We condemn Project Nimbus. (THE GUARDIAN)

Source: 12 Oct 2021 (THE GUARDIAN)**Date:** October 2021**Assessment:** Minor**Status:** Concluded**California, US: Purported class action over alleged excessive data usage and unauthorized transmission of mobile users' data; lawsuit dismissed**

UPDATES: 01 Oct 2021: Taylor, et al. v. Google LLC, 5:20-cv-07956. (California Northern District Court)

25 May 2021: Google Can't Beat Suit Alleging Mobile App Privacy Breaches. (LAW360)

12 Nov 2020: Taylor, et al. v. Google LLC, 5:20-cv-07956. (California Northern District Court)

Source: 01 Oct 2021 (California Northern District Court)**Date:** September 2021**Assessment:** Minor**Status:** Ongoing**UK: Proposed class action over alleged unauthorized sharing of patients' medical data in a DeepMind-NHS project deal**

UPDATES: 30 Sep 2021: Google, AI Unit Hit With Privacy Suit Over Patient Records. (LAW360)

03 Jul 2017: Google DeepMind patient data deal with UK health service illegal, watchdog says. (CNBC)

Source: 30 Sep 2021 (LAW360)**Date:** August 2021**Assessment:** Minor**Status:** Ongoing**California, Google Home: Class action lawsuit for allegedly recording, retrieving, and processing audio through voice-activated products without being activated by users**

UPDATES: 30 Aug 2021: GOOGLE LLC: Must Face Voice Assistant Privacy Class Action. (CLASS ACTION REPORTER)

11 Aug 2021: GOOGLE LLC: US Judge Affirms Voice Assistant Privacy Class Action. (CLASS ACTION REPORTER)

10 Sep 2020: Brekhus et al v. Google LLC et al, 5:20-cv-05488. (U.S. District Court for the Northern District of California) The court rejected to consolidate the case to another class action lawsuit.

14 Aug 2020: Brekhus et al v. Google LLC et al., 5:20-cv-05488. (U.S. District Court for the Northern District of California)

Source: 30 Aug 2021 (CLASS ACTION REPORTER)**Date:** August 2021**Assessment:** Minor**Status:** Ongoing**Austrian NGO criticism for alleged refusal to allow for users to easily opt-out of personal advertisement cookies**

UPDATES: 10 Aug 2021: Internet : une ONG dépose plus de 400 plaintes liées aux «cookies». publicitaires [Internet: an NGO files more than 400 complaints related to advertising "cookies"] (Le Figaro)

Source: 10 Aug 2021 (Le Figaro)**Date:** July 2021**Assessment:** Minor**Status:** Ongoing**Moscow, Russia: Order by court to pay RUB 3 million of penalty for alleged refusal to move personal data of Russian users to servers in Russia**

UPDATES: 30 Jul 2021: Russia fines Google for violating data storage law. (THE CANADIAN PRESS)

Source: 30 Jul 2021 (THE CANADIAN PRESS)**Date:** July 2021**Assessment:** Minor**Status:** Ongoing**United States: Proposed class action lawsuits for allegedly promoting and generating profit from illegal gambling features of mobile games and other casino-style games**

UPDATES: 27 Jul 2021: GOOGLE LLC: Valencia Class Suit Moved From N.D. Ala. to N.D. Cal.. (CLASS ACTION REPORTER)

16 Jun 2021: Smith v. Google, LLC et al, 2:21-cv-00053. (U.S. District Court for the Southern District of Mississippi) Transfer of case from Northern District of California to District of Mississippi Southern

13 May 2021: Bruschi v. Google, LLC et al, 5:21-cv-01992. (California Northern District Court)

12 May 2021: Long v. Google, LLC et al, 5:21-cv-01589. (California Northern District Court)

12 May 2021: Sparks v. Google, LLC et al, 5:21-cv-01516. (California Northern District Court)

22 Mar 2021: Bruschi v. Google, LLC et al, 5:21-cv-01992. (California Northern District Court)

05 Mar 2021: Long v. Google, LLC et al, 5:21-cv-01589. (California Northern District Court)

03 Mar 2021: Sparks v. Google, LLC et al, 5:21-cv-01516. (California Northern District Court)

20 Apr 2021: Coffee v. Google LLC, 5:20-cv-03901. (U.S. District Court for the Northern District of California) The court granted Google's motion to dismiss the case.

06 Jan 2021: Brown v. Google, LLC et al, 8:20-cv-01311. (U.S. District Court for the Northern District of New York)

19 Nov 2020: Google Likely To Beat 'Loot Box' Gambling Suit, For Now. (LAW360)

07 Aug 2020: Coffee et al v. Google LLC. (U.S. District Court for the Northern District of California)

Source: 27 Jul 2021 (CLASS ACTION REPORTER)

Date: July 2021**Assessment:** Minor**Status:** Ongoing**NGO criticism of YouTube algorithm recommending videos containing extremism, misinformation, and other inappropriate content to users**

UPDATES: 15 Jul 2021: YouTube sotto accusa: suggerisce video di odio e fake news che violano le sue regole. [YouTube under accusation: suggests hate videos and fake news that violate its rules] (La Repubblica)

Source: 15 Jul 2021 (La Repubblica)**Date:** June 2021**Assessment:** Minor**Status:** Ongoing**California, United States: Putative class action lawsuit over alleged sale of customers' personal information in advertisement auctions**

UPDATES: 29 Jun 2021: GOOGLE LLC: Faces Class Lawsuit Over Sale of Users' Personal Info. (CLASS ACTION REPORTER)

09 Jul 2021: Hewitt et al v. Google LLC, 5:21-cv-02155. (U.S. District Court for the Northern District of California)

30 Mar 2021: Google Hit With Privacy Suit Over Data Shared In Ad Auctions. (LAW360)

05 Mar 2021: Delahunty et al v. Google, LLC, 5:2021-cv-03360. (U.S. District Court for the Northern District of California)

Source: 29 Jun 2021 (CLASS ACTION REPORTER)**Date:** June 2021**Assessment:** Minor**Status:** Ongoing**California, United States: Proposed class action lawsuit over alleged unauthorized disclosure of users' information through Real-Time Bidding system**

UPDATES: 15 Jun 2021: GOOGLE LLC: Delahunty Sues Over Unauthorized Disclosure of Info. (CLASS ACTION REPORTER)

Source: 15 Jun 2021 (CLASS ACTION REPORTER)**Date:** May 2021**Assessment:** Minor**Status:** Ongoing**California, United States: Proposed class action lawsuit over user data collection for competitive advantages**

UPDATES: 26 May 2021: Google Must Face Deception Claim In Data-Harvesting Row. (LAW360)

01 Oct 2020: McCoy v. Alphabet, Inc. et al, 5:2020cv05427. (U.S. District Court for the Northern District of California)

01 Oct 2020: Google Says Android User OK'd Data Sharing And Can't Sue. (LAW360)

Source: 26 May 2021 (LAW360)**Date:** May 2021**Assessment:** Minor**Status:** Ongoing**South Korea: Investigation over allegation of restricting applications downloaded from other app stores from accessing Android Auto**

UPDATES: 16 May 2021: Google faces anti-trust probe over Android Auto. (KOREA HERALD)

Source: 16 May 2021 (KOREA HERALD)**Date:** May 2021**Assessment:** Minor**Status:** Ongoing**Youtube: Criticism against blocking of Palestinian users content and academic content related to Palestine on video platform**

UPDATES: 13 May 2021: Digital apartheid: Palestinians being silenced on social media. (Al Jazeera)

27 Dec 2020: YouTube's Violation of Palestinian Digital Rights: What Needs to be Done. (Al-Shabaka)

Source: 13 May 2021 (Al Jazeera)**Date:** April 2021**Assessment:** Minor**Status:** Ongoing**United States: Class action over alleged unauthorized access of contact tracing data obtained through the Google-Apple Exposure Notification System**

In April 2021, a class action was filed in California, United States, alleging Google LLC breached the California Confidentiality of Medical Information Act when it purportedly allowed contact tracing data from its Google-Apple Exposure Notification System (GAEN) to be placed on Android devices' system logs. According to the plaintiffs, this enabled third parties to access the private personal and medical information of approximately 28 million people in the US who had downloaded contact tracing apps that use GAEN. The plaintiffs further alleged that Google had been aware of the security flaw since February 2021, but had not informed the public accordingly.

UPDATES: 29 Apr 2021: Google Sued Over 'Security Flaw' In COVID-19 Tracing Tool. (LAW360)

Source: 29 Apr 2021 (LAW360)**Date:** April 2021**Assessment:** Minor**Status:** Ongoing**California, US: Purported class actions over alleged tracking of web and app usage despite use of private settings**

UPDATES: 14 Apr 2021: Google Can't Fully Shield CEO From 'Incognito' Suit Discovery. (LAW360)

19 Feb 2021: Judge Koh Doubts Google's Bid To End Chrome Privacy Suit. (LAW360)

14 Jul 2020: Rodriguez, et al., v. Google LLC, et al., 3:20cv4688. (U.S. District Court, Northern District of California)

03 Jun 2020: Google faces \$5 billion lawsuit in U.S. for tracking 'private' internet use. (Reuters)

Source: 14 Apr 2021 (LAW360)

Date: April 2021**Assessment:** Minor
Status: Ongoing**France: NGO complaint over alleged unauthorized use of unique identifiers for targeted advertising on Android phones**

UPDATES: 07 Apr 2021: Mouchards publicitaires sur Android : une plainte déposée en France contre Google. [Advertising cookies on Android: a complaint filed in France against Google. (Le Monde)]

06 Apr 2021: Buy a phone, get a tracker: unauthorized tracking code illegally installed on Android phones. (noyb) The NGO, noyb, announced that it has filed a complaint to the French data protection authority (CNIL).

Source: 07 Apr 2021 (Le Monde)**Date:** February 2021**Assessment:** Minor
Status: Ongoing**California, United States: Advocacy group, Consumer Watchdog criticism over alleged biased search results on state election**

UPDATES: 25 Feb 2021: Ag ferguson files lawsuit against google for repeatedly violating washington campaign finance law. (U.S. Senator for Washington)

07 Dec 2020: Klobuchar, Warner, Colleagues Urge Google to Improve Ad Policies and Combat Election-Related Disinformation. (U.S. Senator for Minnesota)

05 Nov 2020: Senators Ask Google CEO to Explain Apparent Election-Related Disparities. (U.S. Senator for Utah)

31 Oct 2020: Watchdog group says Google gave California voters biased search results. (FOXBUSINESS.COM)

Source: 25 Feb 2021 (U.S. Senator for Washington)**Date:** February 2021**Assessment:** Minor
Status: Ongoing**Criticism over targeted ads option allowing advertisers to potentially exclude persons of nonbinary gender from seeing housing, credit, or job ads; fix underway**

UPDATES: 11 Feb 2021: Google Has Been Allowing Advertisers to Exclude Nonbinary People from Seeing Job Ads. (The Markup)

Source: 11 Feb 2021 (The Markup)**Date:** February 2021**Assessment:** Minor
Status: Ongoing**India: Supreme Court petitions over data security concerns related to unified payments interface**

UPDATES: 01 Feb 2021: SC notice on privacy concerns to Google, WhatsApp, Amazon UPIs. (HINDUSTAN TIMES)

Source: 01 Feb 2021 (HINDUSTAN TIMES)**Date:** January 2021**Assessment:** Minor
Status: Concluded**New Hampshire, United States: Lawsuit over alleged termination of user's account; lawsuit dismissed**

UPDATES: 28 Jan 2021: DeLima v. Google, et al., 1:19-cv-00978. (U.S. District Court, District of New Hampshire)

Source: 28 Jan 2021 (U.S. District Court, District of New Hampshire)**Date:** January 2021**Assessment:** Minor
Status: Ongoing**Illinois, United States: Customer appealed to proposed class action lawsuit over alleged collection of demographic data on partnered medical application**

UPDATES: 09 Jan 2021: No new information available.

02 Nov 2020: Dinerstein v. Google, LLC, 1:19-cv-04311. (U.S. District Court for the Northern District of Illinois)

Source: 02 Nov 2020 (U.S. District Court for the Northern District of Illinois)**Date:** October 2020**Assessment:** Minor
Status: Concluded**USD 310 settlement over protests and demands for reform by 20,000 employees over alleged systemic failure to fairly address sexual harassment**

In October 2018, the New York Times published an investigative report into Google, an Alphabet Inc. company, and its handling of sexual harassment allegations in the past decade, particularly those against executives. Specifically, the report revealed that at least two executives found by the company's internal probes to have violated the company's sexual harassment policy were made to resign rather than have terminated and thus eligible to lucrative exit packages.

Among them was a senior executive and founder of its popular mobile platform who was alleged to have sexually assaulted a colleague in 2013 and whose claims were found to be credible by an internal investigation. The company asked the executive to resign in 2014, allowing him to receive a USD 90 million exit package. The former executive stated that the New York Times report as exaggerated and inaccurate. Similarly, a senior vice president allegedly sexually assaulted an employee during an off-site event in 2015. While the claim was found to be credible by the company, it also asked him to resign; he reportedly received an exit package worth millions.

The report also detailed a 2013 incident wherein the head of Google's research and development arm made sexual comments during a job interview; he also asked the applicant to remove her shirt. The applicant refused and was later informed that her application was unsuccessful. The applicant reported it to the company two years later and was informed that "corrective action" has been taken but was not terminated.

In addition, the report noted the company's decisions in its early years to retain among its board and senior management individuals known to have had relationships with subordinates.

Following the report, a number of employees stated plans to conduct a walkout to protest what they consider to be inadequate response to sexual harassment. Google's CEO expressed support for the walkout. In addition, the CEOs of Alphabet and Google issued apologies and statements to take a "harder line" against sexual harassment. The company also stated that in the past two years, the company has terminated 48 employees for sexual harassment without severance packages.

In November 2018, at least 20,000 Google employees around the world participated in the walkout to protest the company's management of sexual harassment allegations and demand reform. They demanded the following changes in how the company addresses sexual harassment and gender-related issues: the discontinuation of forced arbitration; improvement of processes in reporting sexual misconduct; publicly-available disclosure and transparency report on sexual harassment; the promotion of a Chief Diversity Officer that directly reports to the CEO; assignment of employee representation to the board; and implementation of pay equity. Within days, the CEO made a statement agreeing to the first two demands.

In September 2020, Alphabet announced an extensive legal settlement to address its sexual misconduct and harassment allegations. The settlement included an overhaul of its internal policies and procedures with more than 80 updates or amendments to be made. It also included a USD 310 million allocation for the implementation of measures aimed at improving diversity, equality and inclusion. In October 2020, the settlement was approved by the Santa Clara Superior Court.

UPDATES: 22 Oct 2020: Lead Case No. 19CV341522. (Superior Court of the State of California in and for the County of Santa Clara)

29 Sep 2020: Google's \$310 million sexual harassment settlement aims to set new industry standards. (CNBC)

10 Feb 2020: Two Google employees who spearheaded the walkout against sexual misconduct say the company has retaliated and demoted them (GOOG, GOOGL). (BUSINESS INSIDER US)

14 Jun 2019: Alphabet investors and employees are planning a joint demonstration at shareholders' meeting. (CNBC) Employee groups proposed to ban non-disclosure agreements related to discrimination and harassment and tie executive compensation to diversity performance.

29 Mar 2019: No new information available.

11 Mar 2019: Google Approved \$45 Million Exit Package for Executive Accused of Misconduct. (THE NEW YORK TIMES)

14 Jan 2019: Tech Workers Unite to Fight Forced Arbitration. (Wired)

11 Jan 2019: Alphabet Sued Over Exit Deal for Accused Executive. (THE NEW YORK TIMES)

28 Nov 2018: Google Contractors Want to Be Included in New Policies on Sexual Misconduct. (Bloomberg)

08 Nov 2018: Google Overhauls Sexual Misconduct Policy After Employee Walkout. (The New York Times)

02 Nov 2018: Over 20,000 Google employees participated in yesterday's mass walkout: CEO Sundar Pichai to meet with organizers next week. (The Verge)

01 Nov 2018: We're the Organizers of the Google Walkout. Here Are Our Demands. (New York Magazine)

01 Nov 2018: Google Employees Stage Global Walkout Over Treatment of Sexual Harassment: Organizers demand the tech giant remove mandatory-arbitration clauses from employee contracts. (The Wall Street Journal)

31 Oct 2018: Google CEO: Apology for harassment ""wasn't enough"". (Axios)

31 Oct 2018: Google Faces Internal Backlash Over Handling of Sexual Harassment. (The New York Times)

25 Oct 2018: How Google Protected Andy Rubin, the 'Father of Android': The internet giant paid Mr. Rubin \$90 million and praised him, while keeping silent about a misconduct claim. (The New York Times)

Source: 22 Oct 2020 (Superior Court of the State of California in and for the County of Santa Clara)

GOVERNANCE CONTROVERSIES

Moderate Controversies

Date: November 2021
Assessment: Moderate
Status: Concluded

Ireland: EUR 218 million in backdated tax settlement and interest charges

In November 2021, The Guardian reported that Google Ireland Limited (Google), a subsidiary of Alphabet Inc., agreed to pay EUR 218 million in back taxes to the Irish government for the year 2020. Google has reportedly been accused of avoiding tax in Europe through loopholes called the 'Double Irish, Dutch Sandwich' scheme, which the company previously decided to stop using.

UPDATES: 25 Nov 2021: Google to pay £183m in back taxes to Irish government. (The Guardian)

Source: 25 Nov 2021 (The Guardian)

Date: June 2021
Assessment: Moderate
Status: Ongoing

Russia: Communications regulator's criticism over failure to respond to requests to delete unlawful content

In April 2020, Russian communications regulator Roskomnadzor criticized Alphabet subsidiary Google Inc. for allegedly ignoring its requests regarding the removal of unlawful content from YouTube. The regulator specified that in July 2019, it received information from the General Prosecutor's Office regarding a YouTube video 'openly insulting Russia's national symbols.' The regulator then sent three notifications to Google regarding the video and other content. However, Roskomnadzor stated that the company had not responded diligently to these requests.

In July 2020, Roskomnadzor imposed a penalty of RUB 700,000 (approximately USD 9,249) on Google for alleged non-compliance with regulations due to the failure to remove links to illegal information.

In November 2020, Roskomnadzor opened administrative proceedings against Google over alleged failure to remove banned content from its search engine.

In December 2020, a court in Moscow imposed a penalty of RUB 3 million (approximately USD 40,495) on Google for alleged repeated failure to delete search results that contained illegal information.

In June 2021, the Justice of the Peace of Moscow stated that it started to prepare new penalty on Google for the company's refusal to delete unlawful content.

UPDATES: 28 Jun 2021: Social networks face new fines in Russia - court. (TASS)

17 Dec 2020: Russia Fines Google for Failing To Remove Banned Content. (The Moscow Times)

23 Nov 2020: Russia opens case against Google for not deleting banned content - TASS. (REUTERS UK)

06 Nov 2020: Google increases filtering of banned content in Russia to 80%. (TASS)

29 Apr 2020: No new information available.

16 Aug 2019: Google shrugs off demand to block video denigrating Russian state symbols, says watchdog. (TASS)

Source: 28 Jun 2021 (TASS)

Date: January 2021

Assessment: Moderate

Status: Ongoing

France: FCA investigation into alleged violation of revised media copyright laws; FCA ordered compensation to French publishers; Paris Court of Appeal upheld FCA's order

In September 2019, Autorité de la concurrence, the French Competition Authority (FCA), launched a preliminary investigation into Google's alleged violation of a revised European Union copyright law. Under the new regulations, media firms would be compensated when their content is used on websites and search engines. Google allegedly refused to pay media outlets for displaying their content, adding it would only show them in search results if consent to use them for free is given.

In November 2019, several organizations representing French publishers filed an official complaint to the FCA over Google's alleged non-compliance with the new legislation.

In April 2020, the FCA ordered Google to negotiate with French publishers and news agencies in good faith over the remuneration due to them for re-using their content.

In October 2020, the Paris Court of Appeal rejected Google's appeal against the FCA's order and ruled that the company must negotiate with French publishers for compensation. The court also ordered Google to pay EUR 20,000 (approximately USD 23,511) to each of the three representatives of the French publishers involved.

In January 2021, Google entered into an agreement with Alliance de la Presse d'Information Générale which set the framework for Google to negotiate individual license agreements with French publishers.

UPDATES: 21 Jan 2021: Droits voisins : Google signe un accord permettant de rémunérer la presse française. [Neighboring rights: Google signs an agreement to remunerate the French press] (Le Parisien)

08 Oct 2020: Google poised to strike deal to pay French publishers for their news. (Reuters)

08 Oct 2020: Droits voisins : les éditeurs de presse marquent un point juridique face à Google. [Neighboring rights: press editors mark a legal point against Google] (Le Parisien)

08 Oct 2020: French appeals court confirms antitrust body's order to Google. (Reuters)

09 Apr 2020: France rules Google must pay news firms for content. (Reuters)

09 Apr 2020: Related rights: the Autorité has granted requests for urgent interim measures presented by press publishers and the news agency AFP (Agence France Presse). (Autorité de la concurrence)

22 Nov 2019: French competition authority receives official complaint against Google over copyright law. (TELECOMPAPER)

27 Sep 2019: Google Deals Blow To EU Copyright Law In France.. (INTERNATIONAL BUSINESS TIMES - US ED.)

Source: 21 Jan 2021 (Le Parisien)

Date: November 2020

Assessment: Moderate

Status: Ongoing

Turkey, YouTube: TRY 10 million of ICTA penalty for alleged failure to appoint compliance representative

In November 2020, Turkey's Information and Communication Technologies Authority (ICTA) imposed a penalty of TRY10 million (approximately USD 1.3 million) each against Facebook (and subsidiary Instagram), YouTube and Twitter over their alleged failure to appoint a representative to ensure that the companies comply with the Turkish law. According to the regulator, the penalty was the first of the five stages to regulate controversial content.

UPDATES: 04 Nov 2020: Turkey fines social media giants for breaching online law. (THE CANADIAN PRESS)

Source: 04 Nov 2020 (THE CANADIAN PRESS)

Date: September 2020

Assessment: Moderate

Status: Ongoing

India: High Court inquiry into alleged inadequate permits for G Pay's operations

In April 2019, Google India Digital Services, a subsidiary of Alphabet Inc. was asked by the Delhi High Court to explain alleged inadequate permits for facilitating financial transactions after a concerned citizen requested the court to review and impose penalties on the company. The Reserve Bank of India (RBI) was also included in the inquiry filed by the concerned citizen in India.

In July 2020, Google argued that the Google Pay abided with regulations because the platform acted as a third-party payment application provider (TPAP) instead of a payment system.

UPDATES: 26 Sep 2020: Google Pay doesn't share customer transaction data with any 3rd party outside payments flow: Google. (HINDUSTAN TIMES)

01 Sep 2020: Google Pay does not access Aadhaar database, Google tells Delhi HC. (HINDUSTAN TIMES)

28 Aug 2020: Indian court seeks response on Google Pay violations case Economic Times. (SNL KAGAN MEDIA & COMMUNICATIONS REPORT)

22 Jul 2020: Google says its payment platform is not violating Indian law. (ECONOMIC TIMES)

10 Apr 2019: Delhi HC asks RBI to explain how G Pay is operating. (Business Standard)

Source: 26 Sep 2020 (HINDUSTAN TIMES)

Date: May 2020

Assessment: Moderate

Status: Ongoing

U.K.: DCMS Sub-committee criticism over alleged insufficient regulation on false COVID-19 narratives

In May 2020, the Department for Digital, Culture, Media and Sport (DCMS) Sub-committee of UK Parliament called on social media operators including Google, the service owned by Alphabet Inc., for alleged failure to provide adequate evidence of tackling the spread of false information about COVID-19 on their platforms. According to DCMS Committee, the company was expected to produce clearer answers responding to the parliament hearing regarding regulating false COVID-19 narratives.

UPDATES: 21 May 2020: Coronavirus: MPs demand answers on misinformation. (BBC News)

Source: 21 May 2020 (BBC News)

Date: September 2019

Assessment: Moderate

Status: Ongoing

France: Investigation over Allegations of Tax Avoidance

In July 2017, a French court ruled that there was not sufficient evidence that held Google, Inc., a unit of Alphabet, Inc., liable for back taxes. Previously, French tax authorities delivered an assessment to Google stating the company owed up to EUR 1 billion (USD 1.38 billion) in back taxes and claimed French sales were routed through an Irish subsidiary to avoid French taxes from 2005 to 2010. The court concluded that Google's Irish unit did not have an enough of an established presence in France to be properly taxed. French authorities later announced that an appeal would be launched against the court ruling. Authorities also stated that a deal could be negotiated with Alphabet over the back taxes claim.

UPDATES: 12 Sep 2019: Google Agrees EUR945 Million Tax Settlement In France. (ALLIANCE NEWS)

24 Jul 2017: France ready to negotiate deal with Google on back taxes. (LAS VEGAS REVIEW-JOURNAL)

13 Jul 2017: France to appeal Google tax ruling. (AGENCE FRANCE PRESSE -- ENGLISH)

12 Jul 2017: Google Wins Tax Case in France, Avoiding \$1.3 Billion Bill. (The New York Times)

24 May 2016: Investigators raid Google Paris HQ in tax evasion inquiry (Reuters)

02 Feb 2016: France vows to tax Google more than UK: Finance minister Michel Sapin says French tax authorities will not negotiate with tech giant. (Financial Times)

08 Oct 2014: Google's Tax Setup Faces French Challenge: Arrangement Channels European Revenue to Country With Favorable Tax Laws. (The Wall Street Journal)

25 Apr 2014: Google Hit With Huge French Tax Bill: Web Giant Could Potentially Owe Up to €1 Billion in Back Taxes. (The Wall Street Journal)

Source: 12 Sep 2019_ALLIANCE NEWS; 24 Jul 2017_LAS VEGAS REVIEW-JOURNAL; 13 Jul 2017_AGENCE FRANCE PRESSE -- ENGLISH; 12 Jul 2017_The New York Times

Date: May 2019

Assessment: Moderate

Status: Ongoing

Australia: AUD 482 Million Settlement on Australian Taxation Office Tax Audit over Alleged Unpaid Back Taxes

In May 2019, Google Australia, a subsidiary of Alphabet, continued to face internal audits from the Australian Taxation Office (ATO) due to alleged unpaid back taxes on advertising revenue. According to sources, the company allegedly paid approximately AUD 26.5 million (around USD 18.4 million) which is less than their total tax payables for the year ending December 2018. However, the company disclosed that it had set aside contingencies related to the ongoing tax reviews by the ATO.

In December 2019, Google agreed to pay a settlement amount of AUD 482 million (approximately USD 327 million) to resolve allegations for taxes owed from 2008 to 2018.

UPDATES: 18 Dec 2019: Google agrees to pay Australian authorities \$327 million as tax settlement. (Business Standard)

Source: 18 Dec 2019_Business Standard

Date: January 2019

Assessment: Moderate

Status: Ongoing

Japan: Allegations of Failure to Pay JPY 3.5 Billion in Taxes from Ad Revenue

In January 2019, the Tokyo Taxation Bureau reportedly found that Google's Japan unit, an Alphabet company, failed to pay JPY 3.5 billion (approximately USD 32 million) in taxes from advertisement and consulting revenue in 2015. The unit extended advertisement and consulting services locally in Japan, however, payments were allegedly forwarded to Singapore, where income taxes are lower. The company reportedly has paid JPY 1 billion (approximately USD 9.1 million) in back taxes and penalties already.

UPDATES: 16 Jan 2019: Google's Japan arm failed to declare 3.5 billion yen. in income. (The Japan News)

Source: 16 Jan 2019_The Japan Times

Minor Controversies

Date: December 2021

Assessment: Minor

Status: Ongoing

US: Shareholders' derivative lawsuits alleging board mismanagement resulting in antitrust liabilities

UPDATES: 07 Dec 2021: Alphabet Investors Sue Over 'Billions' In Antitrust Liability. (LAW360)

Source: 07 Dec 2021 (LAW360)

Date: June 2021

Assessment: Minor

Status: Concluded

Washington: USD 423,659.76 payment for alleged repeated violation of political ad transparency rules

UPDATES: 18 Jun 2021: AG Ferguson: google will pay more than \$423,000 over repeated violations of Washington campaign finance law. (Office of the Washington Attorney General)

	<p>12 Sep 2019: Google reprimanded by Australian Electoral Commission over law breach investigation. (ABC PREMIUM NEWS (AUSTRALIA))</p> <p>19 Dec 2018: Google, Facebook to pay \$450K for Washington state violation. (ASSOCIATED PRESS FINANCIAL WIRE)</p> <p>13 Jul 2018: Facebook, Twitter, Alphabet to testify at U.S. House hearing. (Reuters)</p> <p>04 Jun 2018: Washington state sues Facebook, Google over election ad disclosure. (Reuters)</p> <p>Source: 18 Jun 2021 (Office of the Washington Attorney General)</p>
<p>Date: October 2020</p> <p>Assessment: Minor</p> <p>Status: Concluded</p>	<p>Italy: EUR 100,000 AGCOM penalty over alleged failure to remove gambling advertisement</p> <p>In October 2020, Italy's Authority for Communications Guarantees (AGCOM) imposed a penalty of EUR 100,000 (approximately USD 116,375) on Google Ireland, a subsidiary of Alphabet Inc., over alleged violation of national rules by permitting paid advertisement for a gambling service to appear in search results. The regulator required the company to remove all gambling-related content in compliance with Dignity Decree Act.</p> <p>UPDATES: 24 Oct 2020: Google Ireland fined EUR 100,000 for serving up gambling ads in Italy. (THE IRISH TIMES)</p> <p>Source: 24 Oct 2020 (THE IRISH TIMES)</p>
<p>Date: August 2020</p> <p>Assessment: Minor</p> <p>Status: Concluded</p>	<p>Russia: Penalty over Alleged Failure to Exclude Illegal Information from Searches based on Russian Laws</p> <p>In December 2018, Roskomnadzor, the Russian telecommunications watchdog, imposed a RUB 500,000 (USD 7,521) penalty on Google, a subsidiary of Alphabet Inc., over its alleged failure to exclude links of illegal information banned by the Russian laws.</p> <p>In July 2019, Roskomnadzor compiled a protocol of imposing RUB 700,000 (approximately USD 11,100) penalty on Google over alleged failure of removing search results that contained illegal information.</p> <p>In August 2020, a Russian court imposed a penalty of RUB 1.5 million (approximately USD 20,490) on Google over alleged failure to block content that was banned in Russia.</p> <p>UPDATES: 10 Aug 2020: Russia Fines Google for Not Blocking Banned Content-Ifax. (NEW YORK TIMES)</p> <p>18 Jul 2019: Russia fines Google for failing to filter search results. (Reuters)</p> <p>05 Jul 2019: Russia's media watchdog prepares protocol against Google for insufficient content filtering. (ITAR-TASS)</p> <p>01 Feb 2019: Google pays 7,600-USD fine to Russia over banned information. (XINHUA GENERAL NEWS SERVICE)</p> <p>Source: 10 Aug 2020 (NEW YORK TIMES); 18 Jul 2019_Reuters</p>
<p>Date: March 2020</p> <p>Assessment: Minor</p> <p>Status: Concluded</p>	<p>Google: Court ruled in favor on appeal over EUR 3 million penalty imposed by Hungary over alleged nonpayment of advertising sales tax</p> <p>In March 2020, the European Court of Justice ruled in favor of Google, a unit of Alphabet Inc, over its appeal on the EUR 3 million (USD 3.4 million) penalty imposed by Hungary over the alleged nonpayment of advertising sales tax in 2017.</p> <p>The Court agreed with the company that the penalties were allegedly unfair since only non-Hungarian companies were purportedly assessed and the size of penalties imposed was allegedly unjustified.</p> <p>UPDATES: 03 Mar 2020: Google Wins Hungarian Tax Appeal in EU's Highest Court. (LEGAL WEEK)</p> <p>Source: 03 Mar 2020_LEGAL WEEK</p>

KEY METRIC & SCORE CHANGES

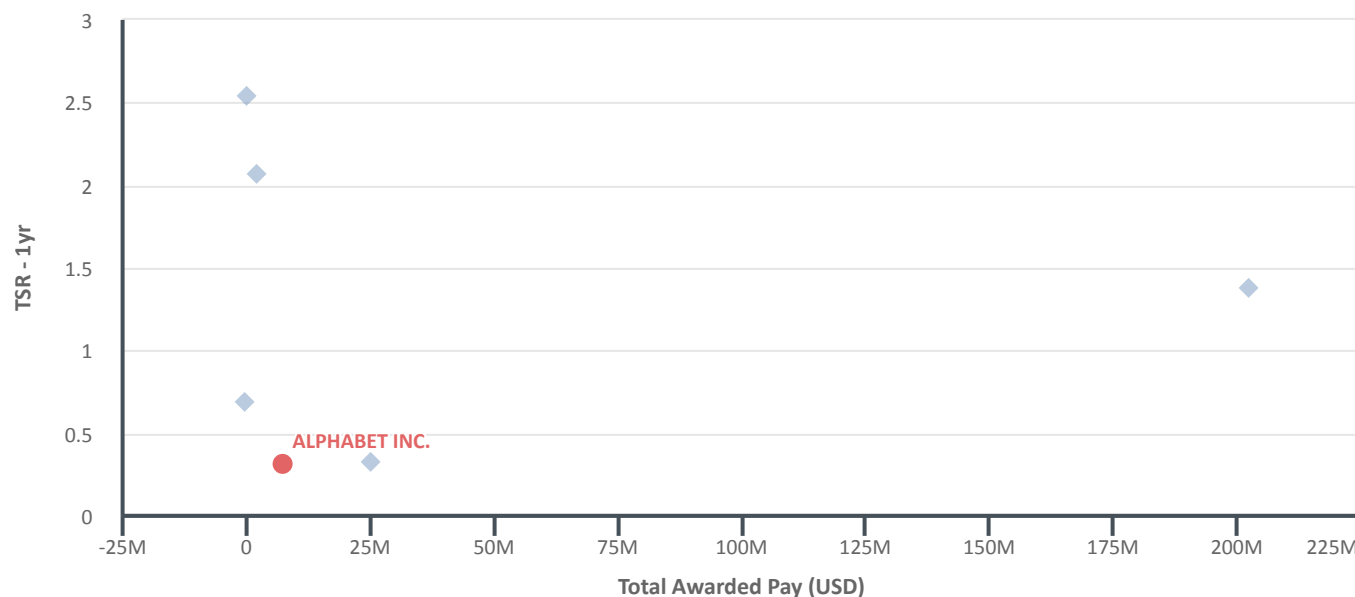
ALL KEY METRIC & SCORE CHANGES (SINCE AUGUST 2020)

Key Metric	Key Metric Change	Date	Score Change*	Change Notes
Expense Recognition	Score Change	Dec 23, 2021	0.01	Updates to data for accounting peer group member(s)
Majority Voting	Score Change	Oct 08, 2021	0.20	Following issuer feedback, subsequently verified
Cumulative Voting	Flag Removed	Oct 08, 2021	0.10	Following issuer feedback, subsequently verified
Expense Recognition	Score Change	Sep 17, 2021	0.14	Updates to data for accounting peer group member(s)
Expense Recognition	Score Change	Aug 06, 2021	-0.19	Updates to data for accounting peer group member(s)
Significant Vote Against Pay Practices	Flag Removed	Jun 22, 2021	0.15	
Run Rate Concerns	Flag Removed	Jun 02, 2021	0.20	
CEO Pay Perks & Other Comp	Flag Added	Jun 02, 2021	-0.20	
Board Attendance Failures	Flag Removed	Jun 02, 2021	0.10	
Auditor Tenure	Flag Added	Jun 02, 2021	-0.20	
Asset-Liability Valuation	Score Change	Jun 02, 2021	-0.03	Updates to data for accounting peer group member(s)
Long-Term Pay Performance Versus Peers	Flag Added	Mar 15, 2021	-0.20	
Revenue Recognition	Flag Removed	Feb 18, 2021	-0.04	Updates to data for accounting peer group member(s)
Revenue Recognition	Flag Added	Feb 15, 2021	0.04	Updates to data for accounting peer group member(s)
Long-Term Pay Performance Versus Peers	Flag Removed	Feb 15, 2021	0.20	
Variable Interest Entity	Flag Removed	Jan 25, 2021	0.50	
Long-Term Pay Performance Versus Peers	Flag Added	Dec 04, 2020	-0.20	

*Score change available in respect of changes dated on or after 13 December 2017.

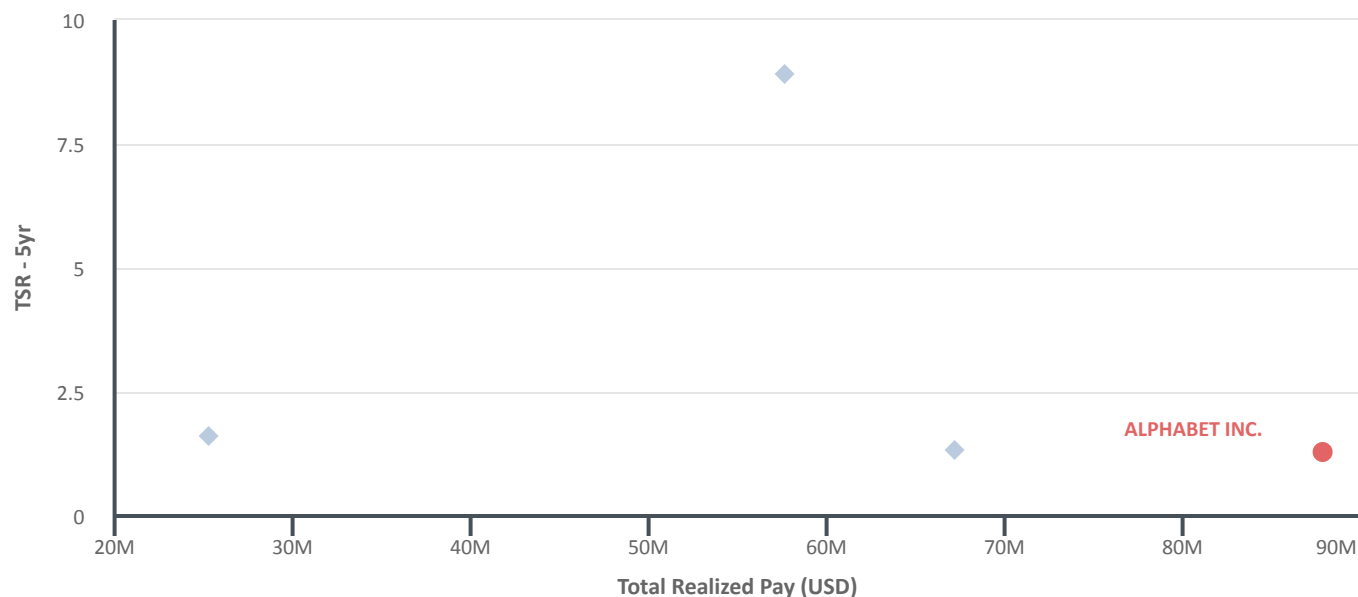
CEO PAY CHARTS

CEO TOTAL AWARDED PAY VERSUS PAY PEER GROUP



Pay Peers (♦) are used in the calculation of the Key Metric CEO Pay Total Summary and selected as set out in the MSCI Governance Metrics Methodology Document.

CEO TOTAL REALIZED PAY VERSUS PAY PEER GROUP



Pay Peers (♦) are used in the calculation of the Key Metric CEO Pay Total Summary and selected as set out in the MSCI Governance Metrics Methodology Document.

DIRECTOR VOTES

Proxy Year	Name	Age	Tenure	Votes For	Votes Against, Withheld and / or Abstained
2021	Alan Mulally	75	7	99%	1%
2021	Ann Mather	60	16	78.5%	21.5%
2021	Frances Arnold	64	2	98.1%	1.9%
2021	John Hennessy	68	17	94.4%	5.6%
2021	K. Ram Shriram	64	23	88.3%	11.7%
2021	L. John Doerr	69	22	79.7%	20.3%
2021	Larry Page	48	23	98.7%	1.3%
2021	Robin Washington	58	2	88.8%	11.2%
2021	Roger Ferguson Jr.	69	5	99.1%	0.9%
2021	Sergey Brin	47	23	98.6%	1.4%
2021	Sundar Pichai	48	4	98.9%	1.1%

SHAREHOLDER/MANAGEMENT PROPOSALS

MANAGEMENT PROPOSALS

Proxy Year	Proposal	Proposal Summary	Outcome	Votes For	Votes Against	Abstain/ Withheld%
2021	Auditor Ratification	2.The ratification of the appointment of Ernst & Young LLP as Alphabet's independent registered public accounting firm for the fiscal year ending December 31, 2021	Approved	98.2%	1.7%	0.1%
2021	Director & Employee Comp	3. The approval of Alphabet's 2021 Stock Plan	Approved	83.8%	16.1%	0.1%
2020	Auditor Ratification	The ratification of the appointment of Ernst & Young LLP as Alphabet's independent registered public accounting firm for the fiscal year ending December 31, 2020. There were no broker non-votes on this matter. This proposal was approved as set forth below:	Approved	98.5%	1.4%	0.1%
2020	Director & Employee Comp	3. The approval of amendment of the 2012 Stock Plan to increase the share reserve by 8,500,000 shares of Class C capital stock. This proposal was approved as set forth below:	Approved	82.5%	17.4%	0.1%
2020	Advisory Vote on Executive Compensation	4. The approval, on an advisory basis, of the compensation awarded to Alphabet's named executive officers, as disclosed in the 2020 Proxy Statement. This proposal was approved as set forth below	Approved	74.8%	25.1%	0.1%
2019	Auditor Ratification	2. The ratification of the appointment of Ernst & Young LLP as Alphabet's independent registered public accounting firm for the fiscal year ending December 31, 2019. There were no broker non-votes on this matter.	Approved	99.1%	0.8%	0.1%
2019	Director & Employee Comp	3. The approval of amendment and restatement of Alphabet's 2012 Stock Plan to increase the share reserve by 3,000,000 shares of Class C capital stock.	Approved	87.8%	12.1%	0.1%

*For Management Proposals at AGM's held more than three years ago, please refer to the Screener tool on ESG Manager.

SHAREHOLDER PROPOSALS

Proxy Year	Proposal	Proposal Summary	Proposal Proponent	Outcome	Votes For	Votes Against	Abstain/ Withheld%
2021	Shareholder Voting Issues	4.A stockholder proposal regarding equal shareholder voting. This proposal was not approved as set forth below:	Mr. Page and Mr. Brin	Defeated	31.4%	68.5%	0.1%
2021	Human Rights	5.A stockholder proposal regarding the nomination of human rights and/or civil rights expert to the board. This proposal was not approved as set forth below:	Undisclosed	Defeated	10.3%	89.5%	0.2%
2021	Sustainability Report	6.A stockholder proposal regarding a report on sustainability metrics. This proposal was not approved as set forth below:	undisclosed	Defeated	12.2%	87.6%	0.2%
2021	Other	7.A stockholder proposal regarding a report on takedown requests. This proposal was not approved as set forth below:	undisclosed	Defeated	13.3%	86.4%	0.3%
2021	Other	8. A stockholder proposal regarding a report on whistleblower policies and practices.	undisclosed	Defeated	10.3%	89.4%	0.3%
2021	Charitable Contributions	9. A stockholder proposal regarding a report on charitable contributions.	undisclosed	Defeated	0.6%	99.2%	0.2%
2021	Other	10. A stockholder proposal regarding a report on risks related to anticompetitive practices	undisclosed	Defeated	12.4%	87.4%	0.3%
2021	Business Activities	11. A stockholder proposal regarding a transition to a public benefit corporation.	undisclosed	Defeated	1.2%	98.6%	0.3%
2020	Shareholder Voting Issues	5. A stockholder proposal regarding equal shareholder voting. This proposal was not approved as set forth below	Undisclosed	Defeated	31.6%	68.3%	0.1%
2020	ESOPs and Employee Pension and Benefit Plans	6. A stockholder proposal regarding a report on arbitration of employment-related claims. This proposal was not approved as set forth below	Undisclosed	Defeated	16.1%	83.6%	0.3%
2020	Human Rights	7. A stockholder proposal regarding the establishment of a human rights risk oversight committee. This proposal was not approved as set forth below	Undisclosed	Defeated	16.2%	83.4%	0.3%
2020	Bylaw Amendment	8. A stockholder proposal regarding non-binding vote on amendment of bylaws. This proposal was not approved as set forth below	Undisclosed	Defeated	0.9%	98.8%	0.2%
2020	Sustainability Report	9. A stockholder proposal regarding a report on sustainability metrics. This proposal was not approved as set forth below	Undisclosed	Defeated	13.1%	86.7%	0.2%
2020	Other	10. A stockholder proposal regarding a report on takedown requests. This proposal was not approved as set forth below	Undisclosed	Defeated	11.4%	88.3%	0.3%
2020	Board Elections - Majority Voting for Directors	11. A stockholder proposal regarding majority vote for election of directors. This proposal was not approved as set forth below	Undisclosed	Defeated	29.4%	70.5%	0.1%
2020	Employment Discrimination	12. A stockholder proposal regarding a report on gender/racial pay equity. This proposal was not approved as set forth below	Undisclosed	Defeated	4.8%	94.8%	0.3%
2020	Human Rights	13. A stockholder proposal regarding the nomination of human rights and/or civil rights expert to the board. This proposal was not approved as set forth below	Undisclosed	Defeated	9%	90.8%	0.2%
2020	Other	14. A stockholder proposal regarding a report on whistleblower policies and practices. This proposal was not approved as set forth below	Undisclosed	Defeated	4.9%	94.7%	0.4%
2019	Other	4. A stockholder proposal regarding equal shareholder voting	Undisclosed	Defeated	30%	69.9%	0.1%
2019	Employment Discrimination	5. A stockholder proposal regarding inequitable employment practices.	Undisclosed	Defeated	12.4%	86.7%	0.9%
2019	Other	6. A stockholder proposal regarding the establishment of a societal risk oversight committee.	Undisclosed	Defeated	8.8%	90.7%	0.6%
2019	Human Rights	7. A stockholder proposal regarding a report on sexual harassment risk management.	Undisclosed	Defeated	17.5%	80.9%	1.6%
2019	Board Elections - Majority Voting for Directors	8. A stockholder proposal regarding majority vote for the election of directors.	Undisclosed	Defeated	30.3%	69.5%	0.1%
2019	Other	9. A stockholder proposal regarding a report on gender pay.	Undisclosed	Defeated	11.1%	87.5%	1.4%

Proxy Year	Proposal	Proposal Summary	Proposal Proponent	Outcome	Votes For	Votes Against	Abstain/ Withheld%
2019	Strategic Alternatives	10. A stockholder proposal regarding strategic alternatives.	Undisclosed	Defeated	0.5%	99.1%	0.4%
2019	Other	11. A stockholder proposal regarding the nomination of an employee representative director.	Undisclosed	Defeated	1.8%	98.1%	0.1%
2019	Simple Majority Vote	12. A stockholder proposal regarding simple majority vote.	Undisclosed	Defeated	6.8%	93.1%	0.1%
2019	Sustainability Report	13. A stockholder proposal regarding a sustainability metrics report.	Undisclosed	Defeated	9.7%	89.9%	0.5%
2019	Other	14. A stockholder proposal regarding Google Search in China.	Undisclosed	Defeated	2.2%	96.8%	1%
2019	Other	15. A stockholder proposal regarding a clawback policy.	Undisclosed	Defeated	24.6%	75%	0.3%
2019	Other	16. A stockholder proposal regarding a report on content governance.	Undisclosed	Defeated	6.8%	91.4%	1.8%
2019	Other	17. A stockholder proposal presented at the 2019 Annual Meeting but not included in 2019 Proxy Statement regarding Alphabet's compliance with sanctions programs.	Undisclosed	Defeated	0%	100%	0%

*For Shareholder Proposals at AGM's held more than three years ago, please refer to the Screener tool on ESG Manager.

DELAWARE



CURRENCY: UNITED STATES DOLLAR (USD)

In the United States, most governance principles are governed by state laws that are not uniform or nationally enforced. However, the majority of states have adopted the Model Business Corporation Act (MBCA) as the basis of their own laws by modifying some of the provisions of the MBCA. The MBCA is a body of laws designed to regulate corporate affairs uniformly across different states. It is the basis for business corporation statutes in 32 states and the District of Columbia and is the source of many provisions in the general corporation statutes of other states. Further, the Securities and Exchange Commission (SEC) regulates certain governance related matters on a federal level.

The majority of large U.S. businesses are listed on either the New York Stock Exchange (NYSE) or the Nasdaq Stock Market (Nasdaq), and therefore are subject to their listing rules. The U.S. has not adopted a national corporate governance code.

Delaware's corporate governance is defined by the General Corporation Law of the State of Delaware (DGCL), with annual updates and revisions by the Delaware legislature based on the recommendations of the Council of the Corporation Law Section of the Delaware State Bar Association. Judicial decisions by the state's Court of Chancery also set governance practice, with appeals heard at the Delaware Supreme Court.

Companies adopt a unitary board structure in the U.S. The NYSE and Nasdaq listing rules require the majority of directors to be independent. The SEC rules require public companies to disclose and explain their chair-CEO structure and whether one or two people hold the roles. If the roles are combined, the company must further disclose whether it has a lead independent director and specify their role within the company leadership.

Unless stated otherwise in the articles of association, directors may appoint inspectors in advance of any shareholder meeting to determine the number of shares outstanding, voting rights, shares represented at the meeting, existence of a quorum, authenticity and validity of proxies, and take all other actions with regards to the annual shareholders' meeting.

Related party transactions (RPTs) are valid if the transaction was conducted on reasonable and fair terms when it was approved, and the RPT is approved in good faith by the majority of independent directors. If the number of independent directors is less than a quorum, then it must be approved by shareholders.

The board of directors may fix director and officer pay, although most companies delegate the responsibility for defining executive pay to independent directors, usually upon the recommendation of the pay or nominating/governance committee. Officers are executive directors that are responsible for the daily management of the company.

The Dodd-Frank Act requires listed companies to hold an advisory vote every three years on "say on pay" policies, as well as disclose additional information regarding "golden parachute" arrangements linked to merger transactions.

Listed companies must annually disclose the pay of directors and officers, including stock and option awards. Disclosure must be made in a tabular format, along with a descriptive summary of the information in the table. Companies listed on Nasdaq must also disclose pay arrangements between directors or nominees and third parties.

The U.S. market is known for having widely dispersed ownership, but founder-led companies are common. There are multiple share classes with unequal voting rights and voting right limits.

Shareholders with at least 10% voting rights can request to convene a general meeting.

A notice of the meeting, specifying the date, time, place and purpose must be given no less than seven days and no more than 60 days in advance. Special meeting of shareholders may be convened by shareholders owning at least 10% of shares. Typically, each share is entitled to one vote and fractional shares are entitled to proportionate votes. Shareholders do not have preemptive rights unless specifically provided in the bylaws or articles. Dissenting shareholders are entitled to appraisal rights.

Unless otherwise stipulated in the articles, a corporation is not obligated to offer shareholders any shares, option rights or securities when issuing them.

There are no mandatory takeover bid provisions in the U.S.

In 2018, the Delaware enacted a Certification of Adoption of Transparency and Sustainability Standards Act which is a voluntary act broadly enabling entities registered in Delaware to craft a sustainability regime. The Act is primarily a disclosure regime which requires entities to disclose and provide reports regarding their standards and metrics. There are many provisions in the Federal Sarbanes-Oxley Act that govern the audit process. A public company's annual financial statements must be audited by a registered independent auditing firm. Listed companies prepare two annual reports, one for SEC (Form 10-K) and one for their shareholders. The reports to stockholders, as required by SEC, must contain certified financial statements of two-year audited balance sheets, and three-year audited statement of income and cash flows. Directors and officers of the corporation must also be identified. Interim financial statements are not audited, only reviewed by the company's auditors. If an auditor has not reviewed the interim report, it must be accompanied with a notice specifying that the report has not been reviewed by an auditor. Audit firm rotation is not required but lead audit partners are subject to rotation every five years.

DIRECTOR PROFILES

ALAN MULALLY

Age:	75	Financial:	No
Gender:	M	Risk:	No
Nationality:	Not Disclosed	Industry:	Automobiles & Components - Automobiles,Capital Goods - Aerospace & Defense

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member Source Date: 04/23/2021

Alan R. Mulally has served as a member of our Board of Directors since July 2014. Alan served as President and Chief Executive Officer of Ford Motor Company, a global automotive company, from September 2006 through June 2014. Alan was previously a director of Ford and served on its finance committee from September 2006 through June 2014. From March 2001 to September 2006, Alan served as Executive Vice President of the Boeing Company and President and Chief Executive Officer of Boeing Commercial Airplanes, Inc. He also was a member of the Boeing Executive Council. Prior to that time, he served as President of Boeing's space and defense business. Alan served as co-chair of the Washington Competitiveness Council and sat on the advisory boards of NASA, the University of Washington, the University of Kansas, the Massachusetts Institute of Technology, and the U.S. Air Force Scientific Advisory Board. He is a member of the U.S. National Academy of Engineering and a fellow of England's Royal Academy of Engineering. Alan holds a Bachelor of Science and Master of Science degrees in aeronautical and astronautical engineering from the University of Kansas, and a Master of Science degree in management from the Massachusetts Institute of Technology as a 1982 Alfred P. Sloan fellow

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
ALPHABET INC.	Board Member	7	Jul 09, 2014		Yes	Yes	
FORD MOTOR COMPANY	Executive		Jan 01, 2006	Jul 01, 2014	No	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
ALPHABET INC.	Audit	Member
ALPHABET INC.	Risk	Member

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	99%	1%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
ALPHABET INC.	Non-Executive	7	2020	75,000	427,320	0

ANN MATHER

Age:	60	Financial:	Yes
Gender:	F	Risk:	No
Nationality:	Not Disclosed	Industry:	Media - Media,Software & Services - Software

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member Source Date: 04/23/2021

Ann Mather has served as a member of our Board of Directors since November 2005. Ann has been a member of the board of directors of Airbnb, Inc., a home sharing platform company, since August 2018, and serves as chair of its audit committee; Arista Networks, Inc., a computer networking company, since June 2013, and serves as chair of its audit committee; Bumble Inc., a social network company, since March 2020, and serves as its nonexecutive chair of the board; and Netflix, Inc., a streaming media company, since July 2010, and serves as chair of its audit committee. Ann has also been an independent trustee to the Dodge & Cox Funds board of trustees since May 2011. Ann was previously a director of Glu Mobile Inc., a publisher of mobile games, from September 2005 to February 2021, and a director of Shutterfly, Inc., an internet-based image publishing company, from May 2013 to September 2019. From 1999 to 2004, Ann was Executive Vice President and Chief Financial Officer of Pixar, a computer animation film studio. Prior to her service at Pixar, Ann was Executive Vice President and Chief Financial Officer of Village Roadshow Pictures, the film production division of Village Roadshow Limited. Ann holds a Master of Arts degree from Cambridge University in England, is an honorary fellow of Sidney Sussex College, Cambridge, and is a chartered accountant

NETFLIX, INC. - Board Member Source Date: 04/23/2021

Ann Mather has served as a member of our board of directors since 2010. Ms. Mather has also been a member of the board of directors of: Bumble, a location-based social application that facilitates communication between interested users, since 2020; Airbnb, a vacation rental online marketplace company, since 2018; Glu Mobile Inc., a publisher of mobile games, since 2005; Google, Inc. since 2005, and serves as a chair of its audit committee; and Arista Networks, provider of cloud networking services, since 2013, and serves on its audit committee. Ms. Mather has also been an independent trustee to the Dodge & Cox Funds board of trustees since 2011. Ms. Mather was previously a director of: Shutterfly; Zappos.com, Inc., a privately held, online retailer, until it was acquired by Amazon.com, Inc. in 2009; Ariat International, Inc., a privately-held manufacturer of footwear for equestrian athletes, from 2005 to 2012; and MGM Holdings, Inc. ("MGM", the independent, privately-held motion picture, television, home video and theatrical production and distribution company), from 2010 to 2019. From 1999 to 2004, Ms. Mather was Executive Vice President and Chief Financial Officer of Pixar, a computer animation studio. Prior to her service at Pixar, Ms. Mather was Executive Vice President and Chief Financial Officer of Village Roadshow Pictures, the film production division of Village Roadshow Limited. From 1993 to 1999, she held various executive positions at The Walt Disney Company, including Senior Vice President of Finance and Administration for its Buena Vista International Theatrical Division. Ms Mather was made an Honorary Fellow of Sidney Sussex College Cambridge in 2016.

AIRBNB, INC. - Board Member Source Date: 04/30/2021

Ann Mather. Ms. Mather joined our board of directors in August 2018. From September 1999 to April 2004, Ms. Mather served as Executive Vice President and Chief Financial Officer of Pixar, Inc., a computer animation studio, which was acquired by The Walt Disney Company in May 2006. Ms. Mather has served on the board of directors of Bumble Inc., a social network company, since March 2020, Arista Networks, Inc., a publicly-held computer networking company, since 2013, Alphabet Inc. (the successor issuer to, and parent holding company of, Google, Inc.), a publicly-held global technology company, since 2005, Glu Mobile Inc., a publicly-held publisher of mobile games, since 2005, and Netflix, Inc., a publicly-held global TV and movie streaming company, since 2010. Ms. Mather is an independent trustee to the Dodge & Cox Funds board of trustees. Ms. Mather received a Master of Arts from Cambridge University. We believe that Ms. Mather is qualified to serve as a member of our board of directors because of her extensive experience advising the boards of global technology companies

ARISTA NETWORKS, INC. - Board Member Source Date: 04/21/2021

Ms. Mather has served as a member of our board of directors since June 2013. From September 1999 to April 2004, Ms. Mather served as executive vice president and chief financial officer of Pixar, Inc., a computer animation film studio, which was acquired by the Disney Corporation in May 2006. Prior to her service at Pixar, Ms. Mather served as executive vice president and chief financial officer of Village Roadshow Pictures, the film production division of Village Roadshow Limited. Ms. Mather has served on the board of directors of Alphabet Inc. (the successor issuer to, and parent holding company of, Google, Inc.), a global technology company, where she is chair of their audit committee since November 2005; Netflix, Inc., an internet subscription service for movies and television shows since July 2010, and serves as chair of its audit committee; and Airbnb, Inc., a vacation rental online marketplace company, since August 2018, and serves as chair of its audit committee. Since March 2020, she has served as chair of the board of directors of Bumble Inc., a social networking platform. Ms. Mather is also an independent trustee to the Dodge & Cox Funds board of trustees. Ms. Mather served as a director of Shutterfly, Inc., an Internet-based image publishing service, from May 2013 to September 2019; as a director of Glu Mobile Inc., a publisher of mobile games from September 2005 to February 2021; and as the lead independent director of MGM Holdings Inc. from December 2010 to July 2019. Ms. Mather holds an M.A. degree from Cambridge University. Qualifications We believe Ms. Mather possesses specific attributes that qualify her to serve as a member of our board of directors, including her extensive experience as a chief financial officer and as a board member of companies in the technology industry. .

Bumble Inc - Board Member, Chairman Source Date: 03/15/2021

Ann Mather has served as the Chair of our board of directors since March 2020. Ms. Mather has more than 20 years of experience serving as a finance executive in a number of technology companies, particularly public companies, overseeing and assessing company performance. Ms. Mather also serves as a member of the board of directors of: Alphabet Inc., a global technology company; Arista Networks, Inc., a computer networking company; Glu Mobile Inc., a publisher of mobile games; and Netflix, Inc., a streaming media company. Ms. Mather also serves as a member of the board of directors of Airbnb, a vacation rental online marketplace company, as an independent trustee to the Dodge & Cox Funds board of trustees and was a director of Shutterfly, Inc., an internet-based image publishing company, from May 2013 to September 2019 when it became a private company. From September 1999 to April 2004, Ms. Mather was Executive Vice President and Chief Financial Officer of Pixar, a computer animation film studio. Prior to her service at Pixar, Ann was Executive Vice President and Chief Financial Officer of Village Roadshow Pictures, the film production division of Village Roadshow Limited. Ann holds a Master of Arts degree from the University of Cambridge, is an honorary fellow of Sidney Sussex College, Cambridge, and is a chartered accountant.

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
Bumble Inc	Board Member, Chairman	1	Mar 01, 2020		Yes	Yes	
AIRBNB, INC.	Board Member	3	Aug 01, 2018		Yes	Yes	
ARISTA NETWORKS, INC.	Board Member	8	Jun 01, 2013		Yes	Yes	
NETFLIX, INC.	Board Member	11	Jul 01, 2010		Yes	Yes	
ALPHABET INC.	Board Member	16	Nov 01, 2005		Yes	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
AIRBNB, INC.	Audit	Chair
AIRBNB, INC.	Corporate Governance	Member
AIRBNB, INC.	Nomination	Member
AIRBNB, INC.	Risk	Chair
ALPHABET INC.	Audit	Chair
ALPHABET INC.	Risk	Chair
ARISTA NETWORKS, INC.	Audit	Chair
Bumble Inc	Corporate Governance	Chair
Bumble Inc	Nomination	Chair
NETFLIX, INC.	Audit	Chair

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	78.5%	21.5%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
AIRBNB, INC.	Non-Executive	3	2020	90,000	365,575	9,769
ALPHABET INC.	Non-Executive	16	2020	100,000	452,320	836
ARISTA NETWORKS, INC.	Non-Executive	8	2020	100,000	100,000	586
Bumble Inc	Chair	1	2020	244,262	1,421,814	34,972
NETFLIX, INC.	Non-Executive	11	2020		376,943	0

FRANCES ARNOLD

Age: 64

Gender: F

Nationality: Not Disclosed

Financial: No

Risk: No

Industry: Materials - Chemicals

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member Source Date: 04/23/2021

Frances H. Arnold has served as a member of our Board of Directors since December 2019. Frances manages a research group, is the Linus Pauling Professor of Chemical Engineering, Bioengineering and Biochemistry, and is a Director of the Donna and Benjamin M. Rosen Bioengineering Center, all at the California Institute of Technology. She joined the California Institute of Technology in 1986 and has served as a Visiting Associate, Assistant Professor, Professor, and Director. Frances's laboratory focuses on protein engineering by directed evolution, with applications in alternative energy, chemicals, and medicine. She has been appointed co-chair of the President's Council of Advisors on Science & Technology by President Biden. Frances is the recipient of numerous honors, including the Nobel Prize in Chemistry, the Millennium Technology Prize, induction into the National Inventors Hall of Fame, Fellow of the National Academy of Inventors, the ENI Prize in Renewable and Nonconventional Energy, the U.S. National Medal of Technology and Innovation, and the Charles Stark Draper Prize of the U.S. National Academy of Engineering. Frances is an elected member of all three U.S. National Academies of Science, Medicine, and Engineering, as well as the American Academy of Arts and Sciences. Frances has been a member of the board of directors of Illumina, Inc., a provider of integrated systems for the analysis of genetic variation and biological function, since 2016, and serves as chair of its science and technology committee and as a member of the nominating and corporate governance committee. Frances holds a Bachelor of Science degree in mechanical and aerospace engineering from Princeton University and a Doctoral degree in chemical engineering from the University of California, Berkeley

ILLUMINA, INC. - Board Member Source Date: 04/16/2021

Frances Arnold - Career Highlights Linus Pauling Prof. of Chemical Engineering, Biochemistry and Bioengineering at the California Institute of Technology, Director of the Donna & Benjamin M. Rosen Bioengineering Center Co-Founder at Gevo, Inc. (2005), Provivi, Inc. (2014), and Aralez, Inc. (2019) Other Public Board Service Alphabet, Inc. (since 2019) Additional Non-Public Board Service Generate Biosciences (since 2019) Aralez Bio (since 2019) Provivi, Inc. (since 2014) Awards and Memberships Nobel Prize in Chemistry (2018) Millennium Technology Prize (2016) Inducted into National Inventors Hall of Fame (2014) Charles Stark Draper Prize of U.S. NAE (2011) Elected member of US National Academies of Science, Medicine, and Engineering, the American Academy of Arts and Sciences, and the American Philosophical Society Education B.S. in Mechanical and Aerospace Engineering from Princeton University Ph.D. in Chemical Engineering from the University of California, Berkeley Also... Chair, Advisory Panel, Fellowships in Science & Engineering, David and Lucile Packard Foundation Vice-Chair, Board of Trustees, Gordon Research Conferences.

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
ALPHABET INC.	Board Member	2	Dec 07, 2019		Yes	Yes	
ILLUMINA, INC.	Board Member	5	Jan 01, 2016		Yes	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
ALPHABET INC.	Corporate Governance	Member
ALPHABET INC.	Nomination	Member
ILLUMINA, INC.	Corporate Governance	Member
ILLUMINA, INC.	Nomination	Member

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	98.1%	1.9%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
ALPHABET INC.	Non-Executive	2	2020	38,248	1,226,305	0
ILLUMINA, INC.	Non-Executive	5	2020	90,000	440,359	10,927

JOHN HENNESSY

Age: 68
Gender: M
Nationality: Not Disclosed

Financial: No
Risk: No
Industry: Consumer Services - Diversified Consumer Services

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member, Chairman Source Date: 04/23/2021

John L. Hennessy has served as a member of our Board of Directors since April 2004 and as Chair of the Board of Directors since January 2018. John previously served as our Lead Independent Director from April 2007 to January 2018. John is the James F. and Mary Lynn Gibbons Professor of Computer Science and Electrical Engineering in the Stanford School of Engineering, and the Shriram Family Director of Stanford's Knight-Hennessy Scholars, a graduate-level scholarship program. John served as the President of Stanford University from September 2000 to August 2016. From 1994 to August 2000, John held various positions at Stanford, including Dean of the Stanford University School of Engineering and Chair of the Stanford University Department of Computer Science. John was previously a director and a member of the nominating and governance committee and acquisition committee of Cisco Systems, Inc., a networking equipment company, from January 2002 to December 2018. He also serves as a trustee of the Gordon and Betty Moore Foundation and as a director of the Chan Zuckerberg Biohub. John holds a Bachelor of Science degree in electrical engineering from Villanova University and a Master of Science degree and a Doctoral degree in computer science from the State University of New York, Stony Brook

CISCO SYSTEMS, INC. - Board Member Source Date: 10/25/2021

Dr. Hennessy, 65, has been a member of the Board of Directors since January 2002. He served as President of Stanford University from September 2000 until August 2016. He currently serves as the inaugural Shriram Family Director of the Knight-Hennessy Scholars program at Stanford University. He served as Provost of Stanford from June 1999 to August 2000, Dean of the Stanford University School of Engineering from June 1996 to June 1999, and Chair of the Stanford University Department of Computer Science from September 1994 to March 1996. Dr. Hennessy also currently serves as the lead independent director on the board of directors of Alphabet Inc. Dr. Hennessy brings to the Board of Directors an engineering background as well as skill in the development of information technology businesses. In addition, he has leadership and management experience, both in an academic context at Stanford University and in a corporate context as a board member of public and private technology companies.

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
ALPHABET INC.	Board Member, Chairman	17	Apr 01, 2004		Yes	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
ALPHABET INC.	Corporate Governance	Chair
ALPHABET INC.	Nomination	Chair

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	94.4%	5.6%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
ALPHABET INC.	Chair	17	2020	100,000	603,314	3,243

K. RAM SHRIRAM

Age: 64
Gender: M
Nationality: Not Disclosed

Financial: Yes
Risk: No
Industry: Diversified Financials - Capital Markets, Retailing - Internet & Catalog Retail

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member Source Date: 04/23/2021

K. Ram Shriram has served as a member of our Board of Directors since September 1998. Ram has been a managing partner of Sherpalo Ventures, LLC, an angel venture investment company, since January 2000. From August 1998 to September 1999, Ram served as Vice President of Business Development at Amazon.com, Inc., an internet retail company. Prior to that, Ram served as President at Jungle Corporation, a provider of database technology, which was acquired by Amazon.com in 1998. Ram was an early member of the executive team at Netscape Communications Corporation. Ram is a board member on the Stanford Health Care Board of Trustees, as well as a member of the Council on Foreign Relations. Ram holds a Bachelor of Science degree in mathematics from the University of Madras, India

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
ALPHABET INC.	Board Member	23	Sep 01, 1998		Yes	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
ALPHABET INC.	Pay	Member

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	88.3%	11.7%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
ALPHABET INC.	Non-Executive	23	2020	75,000	427,320	144,037

L. JOHN DOERR

Age: 69
Gender: M
Nationality: Not Disclosed
Financial: Yes
Risk: No
Industry: Diversified Financials - Capital Markets

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member Source Date: 04/23/2021

L. John Doerr has served as a member of our Board of Directors since May 1999. John has been a General Partner of Kleiner Perkins, a venture capital firm, since August 1980. John has been a member of the board of directors of Amyris, Inc., a renewable products company, since May 2006, and serves as chair of its nominating and governance committee; Coursera Inc., a provider of learning platform, since December 2011, and serves on its nominating and corporate governance committee; DoorDash, Inc., a logistics platform company, since March 2015, and serves as chair of its nominating and governance committee; and QuantumScape Corporation, a breakthrough battery company, since December 2010, and serves as chair of its nominating and governance committee. John was previously a director of Bloom Energy Corporation, a green energy company, from May 2002 to April 2021, and a director of Zynga, Inc., a provider of social game services, from April 2013 to May 2017. John holds a Bachelor of Science degree in electrical engineering, a Master of Science degree in electrical engineering from Rice University, and a Master of Business Administration degree from Harvard Business School

DOORDASH, INC. - Board Member Source Date: 04/29/2021

John Doerr has served as one of our directors since March 2015. Mr. Doerr has been a General Partner of Kleiner Perkins Caufield & Byers, or KPCB, a venture capital firm, since August 1980. He currently serves on the board of directors of Alphabet Inc., the parent holding company of Google, Inc., Amyris, Inc., a renewable products company, QuantumScape Corporation, a renewable energy company, and Coursera, an education tech company. Mr. Doerr previously served as a director of Bloom Energy Corporation, a clean energy company, Zynga Inc., a social gaming company, as well as Amazon.com, Inc., an e-commerce company, from 1996 to 2010. He holds a B.S. in Electrical Engineering and an M.S. in Electrical Engineering and Computer Science from Rice University and an M.B.A. from Harvard Business School.

ZYNGA INC. - Lead Director Source Date: 04/05/2021

L. John Doerr has been a general partner of Kleiner Perkins Caufield & Byers, a venture capital firm, since 1980. Mr. Doerr currently serves on the boards of directors of Alphabet, Inc. (NASDAQ: GOOG, GOOGL), a global technology company, and Amyris, Inc. (NASDAQ: AMRS), a synthetic biology company. Mr. Doerr was previously a director of Amazon.com, Inc., an internet retail company, from 1996 to 2010; and Intuit Inc., a provider of business and financial management solutions, from 1990 to 2007. Mr. Doerr earned an M.B.A. from Harvard Business School and an M.S. in electrical engineering and computer science and a B.S. in electrical engineering from Rice University.

Coursera Inc - Board Member Source Date: 03/22/2021

L. John Doerr has served as a member of our board of directors since December 2011. Mr. Doerr has been a General Partner of Kleiner Perkins Caufield & Byers ("KPCB"), a venture capital firm, since August 1980. He currently serves on the board of directors of Alphabet Inc. (Nasdaq: GOOG), the parent holding company of Google LLC, Doordash Inc. (NYSE: DASH), a provider of restaurant food delivery services, Amyris, Inc. (Nasdaq: AMRS), a renewable products company, and Bloom Energy Corporation (NYSE: BE), a clean energy company. Mr. Doerr was previously a director of Amazon.com, Inc., an e-commerce company, from 1996 to 2010, and Zynga Inc. (Nasdaq: ZNGA), a game developing company, from 2013 to 2017. Mr. Doerr holds a B.S. in Electrical Engineering and an M.S. in Electrical Engineering from Rice University, and an M.B.A. from Harvard Business School. We believe Mr. Doerr brings significant public company director experience and global business, leadership, venture capital, and financial expertise to our board of directors.

AMYRIS, INC. - Board Member Source Date: 04/12/2021

Mr. Doerr has been Chairman at Kleiner Perkins Caufield & Byers ("KPCB"), a venture capital firm, since 1980. Mr. Doerr currently serves on the boards of directors of Alphabet Inc., Bloom Energy Corporation, Door Dash, Inc., and QuantumScape Corporation, as well as on the board of directors of numerous private companies, and previously served as a director of Zynga, Inc. from April 2013 to May 2017. Mr. Doerr holds a Bachelor of Science degree and a Master's degree in electrical engineering from Rice University, and a Master of Business Administration degree from Harvard University. Key Qualifications Mr. Doerr's global business leadership as general partner of KPCB, as well as his outside board experience as director of several public and private companies, enables him to provide valuable insight and guidance to our management team and the Board.

BLOOM ENERGY CORPORATION - Lead Director Source Date: 03/31/2021

Mr. Doerr has been a General Partner of Kleiner Perkins Caufield & Byers (together with its affiliates, "Kleiner Perkins") since August 1980. Mr. Doerr was previously a director of Amazon.com, Inc., an e-commerce company, from 1996 to 2010. Mr. Doerr holds a B.S. in Electrical Engineering and an M.S. in Electrical Engineering and Computer Science from Rice University and an M.B.A. from Harvard Business School...

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
DOORDASH, INC.	Board Member	6	Mar 01, 2015		Yes	Yes	
Coursera Inc	Board Member	10	Dec 01, 2011		Yes	Yes	
AMYRIS, INC.	Board Member	15	May 01, 2006		Yes	No	
ALPHABET INC.	Board Member	22	May 01, 1999		No	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
ALPHABET INC.	Pay	Member
AMYRIS, INC.	Corporate Governance	Chair
AMYRIS, INC.	Nomination	Chair
Coursera Inc	Corporate Governance	Chair
Coursera Inc	Nomination	Chair
DOORDASH, INC.	Corporate Governance	Chair
DOORDASH, INC.	Nomination	Chair

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	79.7%	20.3%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
ALPHABET INC.	Non-Executive	22	2020	75,000	427,320	1,263,041
AMYRIS, INC.	Non-Executive	15	2020	49,000	73,102	94,235,938
BLOOM ENERGY CORPORATION	Non-Executive		2020	77,253	247,248	5,434,818
DOORDASH, INC.	Non-Executive	6	2020	4,452	4,452	3,983,721

LARRY PAGE

Age: 48
 Gender: M
 Nationality: United States of America

Financial: Yes
 Risk: No
 Industry: Media - Media

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Executive, Board Member Source Date: 04/23/2021

Larry Page is one of Google's Co-Founders and has served as a member of our Board of Directors since its inception in September 1998. Larry previously served as Google's Chief Executive Officer from April 2011 to October 2015, and as Alphabet's Chief Executive Officer from October 2015 to December 2019. From July 2001 to April 2011, Larry served as Google's President, Products. In addition, from September 1998 to July 2001, Larry served as Google's Chief Executive Officer, and from September 1998 to July 2002, as Google's Chief Financial Officer. Larry holds a Bachelor of Science degree in engineering, with a concentration in computer engineering, from the University of Michigan and a Master of Science degree in computer science from Stanford University.

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
ALPHABET INC.	Executive, Board Member	23	Sep 01, 1998		No	No	

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	98.7%	1.3%

EXECUTIVE PAY (all values USD)

Company	Role	Tenure	Pay Year	Total Annual Pay	Total Awarded Pay	Total Realized Pay	Shares Held
ALPHABET INC.	Executive	23	2020	1	1	1	19,952,558

ROBIN WASHINGTON

Age: 58
Gender: F
Nationality: Not Disclosed

Financial: Yes
Risk: No
Industry: Software & Services - Software, Pharmaceuticals, Biotechnology & Life Sciences - Biotechnology

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member Source Date: 04/23/2021

Robin L. Washington has served as a member of our Board of Directors since April 2019. Robin served as the Executive Vice President and Chief Financial Officer of Gilead Sciences, Inc., a biopharmaceutical company, from May 2008 to November 2019 where she oversaw Global Finance, Facilities and Operations, Investor Relations, and the Information Technology organizations. Robin remained with Gilead in an advisory capacity from November 2019 until March 2020. From January 2006 to June 2007, Robin served as Chief Financial Officer of Hyperion Solutions Corporation, an enterprise software company. Prior to Hyperion, Robin served in a number of executive positions with PeopleSoft, Inc., a provider of enterprise application software. Robin also served as Senior Vice President and Corporate Controller of PeopleSoft along with several other senior financial roles at the company from 1996 to 2005. Prior to PeopleSoft, Robin was Director of Finance for Tandem Computers, an Accounting Analyst for the Federal Reserve Bank of Chicago, and a Senior Auditor for Deloitte & Touche. Robin has been a member of the board of directors of Honeywell International, Inc., a diversified technology and manufacturing company, since April 2013, and serves as a member of its audit committee; salesforce.com, inc., a provider of customer relationship management technology, since September 2013, and serves as chair of its audit committee; and Vertiv Holdings Co., a provider of digital infrastructure technology, since February 2020, and serves as a member of its audit committee. Robin also serves on the Board of Visitors, Graziadio School of Business and Management, Pepperdine University; the President's Council & Ross Business School Advisory Board, University of Michigan; and the UCSF Benioff Children's Hospital Oakland Board of Directors. Robin holds a Bachelor of Arts degree in Business Administration from the University of Michigan, a Master of Business Administration degree from Pepperdine University, and is a certified public accountant

SALESFORCE.COM, INC. - Board Member Source Date: 04/29/2021

Robin Washington has served as a Director since September 2013. Ms. Washington served as an advisor to Gilead Sciences, Inc., a biopharmaceutical company, from November 2019 to March 2020 and served as Executive Vice President and Chief Financial Officer of Gilead from February 2014 to November 2019. She joined Gilead as Senior Vice President and Chief Financial Officer in 2008. From 2006 to 2007, Ms. Washington served as Chief Financial Officer of Hyperion Solutions, an enterprise software company. Prior to Hyperion, Ms. Washington served in a number of executive positions with PeopleSoft, Inc., a provider of enterprise application software. Ms. Washington currently serves as a director of Alphabet Inc., Honeywell International, Inc. and Vertiv Holdings Co. Ms. Washington is a certified public accountant and received a B.A. in Business Administration from the University of Michigan and an M.B.A. from Pepperdine University. Ms. Washington brings extensive experience in management, operations and accounting in the technology sector to our Board of Directors. Her financial expertise in tax, financial reporting, accounting and controls, corporate finance, mergers and acquisitions and capital markets, along with her service on the boards of other public companies, supports our conclusion that Ms. Washington has the necessary and desired skills, experience and perspective to serve on our Board.

HONEYWELL INTERNATIONAL INC. - Board Member Source Date: 04/09/2021

Ms. Robin L. Washington served as Executive Vice President and Chief Financial Officer of Gilead Sciences, Inc. (Gilead), a research-based biopharmaceutical company, from May 2008 through October 2019. In that role, she oversaw Gilead's Global Finance, Investor Relations, and Information Technology organizations. From 2006 through 2007, Ms. Washington served as Chief Financial Officer of Hyperion Solutions, an enterprise software company that was acquired by Oracle Corporation in March 2007. Prior to that, Ms. Washington spent nearly 10 years at PeopleSoft, a provider of enterprise application software, where she served in a number of executive positions, most recently in the role of Senior Vice President and Corporate Controller. Ms. Washington is a Certified Public Accountant. She is a director of Alphabet Inc., Salesforce.com Inc., and Vertiv Group Corp., and she previously served as a director of Tektronix, Inc. (acquired by Danaher Corporation) (2005-2007) and MIPS Technologies, Inc. (acquired by Imagination Technologies Group PLC) (2008-2013).

GILEAD SCIENCES, INC. - Executive Source Date: 03/30/2021

Robin L. Washington Joined Gilead in 2008 Position: Executive Vice President and Chief Financial Officer Ms. Washington oversees the Global Finance and Information Technology organizations. Ms. Washington was promoted to Executive Vice President in 2014. Ms. Washington was previously Chief Financial Officer of Hyperion Solutions, which was acquired by Oracle Corporation in March 2007. Prior to that, Ms. Washington served in a number of executive positions with PeopleSoft, most recently in the role of Senior Vice President and Corporate Controller. Ms. Washington previously served on the Board of Directors of Tektronix, Inc. (acquired by Danaher), the Board of Directors of MIPS Technologies Inc. (acquired by Imagination), and currently is a member of the Board of Directors of Honeywell International, the Board of Directors of Salesforce.com, and the Board of Visitors, Graziadio School of Business and Management, Pepperdine University. Ms. Washington is a certified public accountant and holds a bachelor's degree in business administration from the University of Michigan and an MBA from Pepperdine University.

VERTIV HOLDINGS CO - Board Member Source Date: 04/30/2021

Robin L. Washington has served as one of our directors since February 7, 2020. Ms. Washington is the former Executive Vice President and Chief Financial Officer of Gilead Sciences, Inc. (NASDAQ: GILD), a biopharmaceutical company. She held this role from May 2008 until November 1, 2019, the effective date of her retirement as Chief Financial Officer, and remains an advisor to the company until March 1, 2020. From 2006 to 2007, Ms. Washington served as Chief Financial Officer of Hyperion Solutions, an enterprise software company that was acquired by Oracle Corporation in March 2007. Prior to that, she spent nearly 10 years at PeopleSoft, Inc., a provider of enterprise application software, where she served in a number of executive positions, most recently in the role of Senior Vice President and Corporate Controller. Since April 2019, Ms. Washington has served on the board and on the leadership development and compensation committee of Alphabet Inc. (NASDAQ: GOOG), a multinational technology company. Ms. Washington also currently serves as a director of Honeywell International, Inc. (NYSE: HON), a diversified technology and manufacturing company, where she has served since

April 2013, and as director of Salesforce.com (NYSE: CRM), a global leader in customer relationship management technology, where she has served since September 2013, where she currently chairs the audit committee. Ms. Washington also serves on the Board of Visitors, Graziadio School of Business and Management, Pepperdine University, the Presidents Council & Ross Business School Advisory Board, University of Michigan and the UCSF Benioff Children's Hospital Oakland Board of Directors. She is a Certified Public Accountant, and received a B.A. in Business Administration from the University of Michigan and an M.B.A. from Pepperdine University. Ms. Washington was selected to serve on our Board due to her extensive experience in management, operations and accounting in the technology sector, along with her financial expertise

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
VERTIV HOLDINGS CO	Board Member	1	Feb 07, 2020		Yes	Yes	
ALPHABET INC.	Board Member	2	Apr 01, 2019		Yes	Yes	
SALESFORCE.COM, INC.	Board Member	8	Sep 10, 2013		Yes	Yes	
HONEYWELL INTERNATIONAL INC.	Board Member	8	Apr 22, 2013		Yes	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
ALPHABET INC.	Pay	Chair
HONEYWELL INTERNATIONAL INC.	Audit	Member
SALESFORCE.COM, INC.	Audit	Chair
VERTIV HOLDINGS CO	Audit	Member

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	88.8%	11.2%
HONEYWELL INTERNATIONAL INC.	2021	98.5%	1.5%
SALESFORCE.COM, INC.	2021	97%	3%
VERTIV HOLDINGS CO	2021	98%	2%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
ALPHABET INC.	Non-Executive	2	2020	75,000	427,320	0
HONEYWELL INTERNATIONAL INC.	Non-Executive	8	2020	169,158	369,230	15,257
SALESFORCE.COM, INC.	Non-Executive	8	2021	40,000	414,829	35,082
VERTIV HOLDINGS CO	Non-Executive	1	2020	95,000	254,999	10,000

ROGER FERGUSON JR.

Age: 69
 Gender: M
 Nationality: United States of America

Financial: Yes
 Risk: Yes
 Industry: Insurance - Insurance, Commercial & Professional Services - Professional Services

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Board Member Source Date: 04/23/2021

Roger W. Ferguson Jr. has served as a member of our Board of Directors since June 2016. Roger has served as the President and Chief Executive Officer of TIAA, a major financial services company, since April 2008, and has announced his plan to retire effective May 2021. He joined TIAA after his tenure at Swiss Re, a global reinsurance company, where he served as Chairman of the firm's America Holding Corporation, Head of Financial Services, and a member of the Executive Committee from 2006 to 2008. Prior to that, Roger joined the Board of Governors of the U.S. Federal Reserve System in 1997 and served as its Vice Chairman from 1999 to 2006. From 1984 to 1997, he was an associate and partner at McKinsey & Company. Roger has been a member of the board of directors of General Mills, Inc., a manufacturer and marketer of branded consumer foods, since December 2015, and serves as chair of its finance committee and as a member of its corporate governance committee; and International Flavors & Fragrances, Inc., a creator of flavors and fragrances, since April 2010, and serves as chair of its compensation committee. Roger is also a member of the Smithsonian Institution's Board of Regents and serves on the New York State Insurance Advisory Board. He is a fellow of the American Academy of Arts and Sciences and co-chairs its Commission on the Future of the Undergraduate Education. He is currently Chairman of the Conference Board and serves on the boards of the American Council of Life Insurers, the Institute for Advanced Study, the Memorial Sloan Kettering Cancer Center, and Teachers College of Columbia University. He is a fellow of the American Philosophical Society and a member of the Economic Club of New York, the Council on Foreign Relations, and the Group of Thirty. Roger holds a Bachelor of Arts degree in economics, a Doctoral degree in economics, and a Juris Doctor degree, all from Harvard University.

INTERNATIONAL FLAVORS & FRAGRANCES INC. - Board Member Source Date: 03/23/2021

Roger W. Ferguson, Jr. has served as the President and Chief Executive Officer of TIAA (formerly TIAA-CREF) since 2008 and intends to retire in 2021. Prior to joining TIAA, Mr. Ferguson served as Chairman of Swiss Re America Holding Corporation, a global insurance company, from 2006 to 2008. Mr. Ferguson served as Vice Chairman of the Board of Governors of the U.S. Federal Reserve System from 1999 to 2006. He represented the Federal Reserve on several international policy groups and served on key Federal Reserve System committees, including Payment System Oversight, Reserve Bank Operations and Supervision and Regulation. In addition, Mr. Ferguson led the Fed's initial response on 9/11. From 1984 to 1997, Mr. Ferguson was an associate and partner at McKinsey & Company. Mr. Ferguson brings to our Board his sound business judgment, extensive knowledge of the financial services industry and regulatory experience. We benefit from Mr. Ferguson's service as Chief Executive Officer of TIAA and his experience as a member of other public company boards, which provides him an enhanced perspective on issues applicable to our company.

GENERAL MILLS, INC. - Board Member Source Date: 08/17/2021

Roger W. Ferguson Jr., has served as President and Chief Executive Officer of TIAA (formerly TIAA-CREF), a financial services firm, since 2008. Prior to joining TIAA, Mr. Ferguson served as the Chairman of Swiss Re America Holding Corporation, a global reinsurance company, from 2006 to 2008. Mr. Ferguson has also served in various policy-making positions, including as Vice Chairman of the Board of Governors of the U.S. Federal Reserve System from 1999 to 2006. From 1984 to 1997, Mr. Ferguson was an associate and partner at the consulting firm McKinsey & Company. Contributions to the Board: As the Chief Executive Officer of TIAA, a major financial services company and institutional investor, Mr. Ferguson provides valuable insights and investor perspective on matters of company strategy, performance and corporate governance. Mr. Ferguson also brings significant financial and capital markets expertise to the board and finance committee. With a career that includes management consulting, significant public policy roles, executive leadership and board service, he is well-positioned to enhance the board's strategic discussions and strong governance.

CORNING INCORPORATED - Board Member Source Date: 03/18/2021

Mr. Ferguson has been a national leader in banking and financial services for over 20 years. He is President and Chief Executive Officer of TIAA, the leading provider of retirement services in the academic, research, medical, and cultural fields and a Fortune 100 financial services organization. He is also the former Vice Chairman of the Board of Governors of the U.S. Federal Reserve System, where he represented the Federal Reserve on several international policy groups and served on key Federal Reserve System committees, including Payment System Oversight, Reserve Bank Operations, and Supervision and Regulation. Prior to joining TIAA in April 2008, Mr. Ferguson was head of financial services for Swiss Re and Chairman of Swiss Re America Holding Corporation. From 1984 to 1997, he was an Associate and Partner at McKinsey & Company. He began his career as an attorney at the New York City office of Davis Polk & Wardwell. Mr. Ferguson is a member of the Smithsonian Institution's Board of Regents, the New York State Insurance Advisory Board, and the American Academy of Arts & Sciences. He serves on the boards of Alphabet, Inc.; General Mills, Inc.; and International Flavors & Fragrances, Inc. He also serves on the boards of the American Council of Life Insurers, The Conference Board, the Institute for Advanced Study, and Memorial Sloan Kettering Cancer Center. He is a fellow of the American Philosophical Society and a member of the Economic Club of New York, the Council on Foreign Relations, the Group of Thirty, and the National Association for Business Economics. He brings extensive banking, financial and executive leadership expertise to Corning's Board.

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA - Executive, Board Member, CEO Source Date: 08/20/2020

Dr. Roger W. Ferguson, Jr. is President and CEO of TIAA and CREF. Prior to joining TIAA in 2008, Dr. Ferguson was head of financial services for Swiss Re, Chairman of Swiss Re America Holding Corporation, and a member of the firm's Executive Committee. Dr. Ferguson is a fellow of the American Academy of Arts & Sciences and co-chairs the Academy's Commission on the Future of Undergraduate Education. He has served on the boards of directors of Alphabet, Inc. since 2016, of General Mills since 2015, and of International Flavors & Fragrances Inc. since 2010. Dr. Ferguson is a member of the Smithsonian Institution's Board of Regents, and serves on the New York State Insurance Advisory Board and the board of the American Council of Life Insurers. He is Chairman of The Conference Board and serves on the boards of the Institute for Advanced Study and Memorial Sloan Kettering Cancer Center. He is a fellow of the American Philosophical Society and a member of the National Association for Business Economics, the Economic Club of New York, the Council on Foreign Relations, and the Group of Thirty. Dr. Ferguson holds a B.A., an M.A. and a Ph.D. in Economics, and a J.D., all from Harvard University. Dr. Ferguson provides in-depth knowledge of TIAA operations, sound business judgment, extensive knowledge of the finance industry and familiarity with governmental oversight of the financial services industry.

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
CORNING INCORPORATED	Board Member		Apr 01, 2021		Yes	Yes	
ALPHABET INC.	Board Member	5	Jun 24, 2016		Yes	Yes	
INTERNATIONAL FLAVORS & FRAGRANCES INC.	Board Member	11	Apr 27, 2010		Yes	Yes	
TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA	Executive, Board Member, CEO	13	Jan 01, 2008		No	Yes	

BOARD COMMITTEES

Company	Committee Type	Position
ALPHABET INC.	Audit	Member
ALPHABET INC.	Risk	Member
CORNING INCORPORATED	Pay	Member
CORNING INCORPORATED	Corporate Governance	Member
CORNING INCORPORATED	Nomination	Member
INTERNATIONAL FLAVORS & FRAGRANCES INC.	Pay	Chair
INTERNATIONAL FLAVORS & FRAGRANCES INC.	Corporate Governance	Member
INTERNATIONAL FLAVORS & FRAGRANCES INC.	Nomination	Member
TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA	Risk	Member

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	99.1%	0.9%
CORNING INCORPORATED	2021	97.8%	2.2%
INTERNATIONAL FLAVORS & FRAGRANCES INC.	2021	94.8%	5.2%

DIRECTOR PAY (all values USD)

Company	Role	Tenure	Pay Year	Cash Fees	Total Awarded Pay	Shares Held
ALPHABET INC.	Non-Executive	5	2020	75,000	427,320	0
GENERAL MILLS, INC.	Non-Executive		2021	90,000	270,001	21,572
INTERNATIONAL FLAVORS & FRAGRANCES INC.	Non-Executive	11	2020	130,000	264,351	14,752

SERGEY BRIN

Age: 47
 Gender: M
 Nationality: United States of America

Financial: No
 Risk: No
 Industry: Media - Media

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Executive, Board Member Source Date: 04/23/2021

Sergey Brin is one of Google's Co-Founders and has served as a member of our Board of Directors since its inception in September 1998. Sergey previously served as Google's President from May 2011 to October 2015, and as Alphabet's President from October 2015 to December 2019. From July 2001 to April 2011, Sergey served as Google's President, Technology and Co-Founder. In addition, from September 1998 to July 2001, Sergey served as Google's President and Chairman of Google's Board of Directors. Sergey holds a Bachelor of Science degree with high honors in mathematics and computer science from the University of Maryland at College Park and a Master of Science degree in computer science from Stanford University.

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
ALPHABET INC.	Executive, Board Member	23	Sep 01, 1998		No	No	

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	98.6%	1.4%

EXECUTIVE PAY (all values USD)

Company	Role	Tenure	Pay Year	Total Annual Pay	Total Awarded Pay	Total Realized Pay	Shares Held
ALPHABET INC.	Executive	23	2020	1	1	1	19,168,466

SUNDAR PICHAI

Age: 48
Gender: M
Nationality: India

Financial: No
Risk: No
Industry: Media - Media

BIOGRAPHICAL INFORMATION

ALPHABET INC. - Executive, Board Member, CEO Source Date: 04/23/2021

Sundar Pichai, Chief Executive Officer of Alphabet since December 2019 and Google since October 2015, has served as a member of our Board of Directors since July 2017. Sundar previously served as Google's Senior Vice President of Products from October 2014 to October 2015, and as Google's Senior Vice President of Android, Chrome and Apps from March 2013 to October 2014. Since joining Google in April 2004, Sundar has held various positions, including Google's Senior Vice President, Chrome and Apps; Senior Vice President, Chrome; and Vice President, Product Management. Prior to joining Google, Sundar worked in engineering and product management at Applied Materials, Inc., a semiconductor company, and in management consulting at McKinsey & Company, a management consulting firm. Sundar holds a Bachelor of Engineering degree with honors in metallurgical engineering from the Indian Institute of Technology Kharagpur, a Master of Science degree in materials science and engineering from Stanford University, and a Master of Business Administration degree from The Wharton School of the University of Pennsylvania.

CORPORATE BOARDS

Company	Role	Tenure	Appointed	Resigned	Independent of Management	Independent of Other Interests	Attendance
ALPHABET INC.	Executive, Board Member, CEO	4	Jul 19, 2017		No	Yes	

VOTING RESULTS

Company	Year	For %	Against, Withheld and / or Abstained %
ALPHABET INC.	2021	98.9%	1.1%

EXECUTIVE PAY (all values USD)

Company	Role	Tenure	Pay Year	Total Annual Pay	Total Awarded Pay	Total Realized Pay	Shares Held
ALPHABET INC.	CEO	4	2020	7,425,547	7,425,547	87,951,864	6,582

GLOSSARY

MSCI ESG RATINGS AND SCORES

FINAL ESG RATING

- Letter ratings are relative within each MSCI ESG Ratings industry. Each Final Industry-Adjusted Company Score is converted to an equivalent rating on the AAA-CCC scale.

ESG PILLARS

- the **Environment Score** represents the weighted average of all Key Issues that fall under the Environment Pillar
- the **Social Score** represents the weighted average of all Key Issues that fall under the Social Pillar
- the **Governance Score** represents the sum of score deductions derived from Key Metrics included in Corporate Governance (including Board, Pay, Ownership & Control, and Accounting) and Corporate Behavior (including Business Ethics and Tax Transparency)
- the **Environment Weight** represents the sum of the weights of all Key Issues that fall under the Environment Pillar
- the **Social Weight** represents the sum of the weights of all Key Issues that fall under the Social Pillar
- the **Governance Weight** represents the sum of the weights of Corporate Governance and Corporate Behavior, with a minimum weight set at 33% for all rated issuers

KEY ISSUES

For each industry and Company-Specific Key Issue that contributes to the final rating:

- Weight** contribution to the final rating
- Exposure Score** (available for companies published since June 2011; excluding Raw Material Sourcing – Environmental)
- Management Score** (available for companies published since June 2011; excluding Raw Material Sourcing – Environmental)
- Overall **Key Issue Score**

WEIGHTED-AVERAGE KEY ISSUE SCORE VS. INDUSTRY RELATIVE SCORE

- the **Weighted-Average Key Issue Score** is dynamic, reflecting changes in any underlying scores as of the Last Update date, while the **Industry Relative Score** is more static and corresponds to the Rating Date. Issues that we determine do not present material risks or opportunities to companies in a given industry receive 0% weight and do not impact the overall ESG rating.

SCORES AND CALCULATION OF AVERAGE, PERCENTILE AND RATING DISTRIBUTION

All averages, percentiles, and rating distributions found in the report are based on companies in the relevant MSCI ESG Ratings Industry that are constituents of the MSCI ACWI and are calculated based on industry scores as of the date of publication of this report.

ESTIMATED CARBON EMISSIONS

Carbon estimates are based on carbon intensity (carbon emissions/sales). The Estimate Key represents the source of the estimated carbon emissions data. E.CSI represents Company-Specific Intensity estimates based on previously disclosed data. E.GICSSI represents estimates based on the GICS Sub-Industry average. For E.GICSSI we set five levels of confidence (High, Moderately High, Moderate, Moderately Low, and Low). The Carbon Estimation Methodology document, available on ESG Manager, describes the estimation model in greater detail.

GOVERNMENT SUPPORT RATING

We calculate the 'government support rating' for Supranationals and Development Banks based on the weighted average of member countries' Governance scores using the MSCI ESG Government Ratings methodology. These scores are based on measures of political governance (strength of institutions, corruption control, civil liberties, and human rights) and financial accountability.

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