Risk Factors Comparison 2024-02-15 to 2023-02-22 Form: 10-K

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In addition to the other information contained in this Annual Report, you should consider the following risk factors in evaluating our results of operations, financial condition, business and operations or an investment in the shares of our company. The risk factors described in this section have been separated into four groups: • risks that relate to the competition we or our affiliates face and the technology used in our businesses; • risks that relate to operating in overseas markets and being subject to foreign regulation; • risks that relate to certain financial matters; and • other risks, including risks that, among other things, relate to the obstacles that may be faced by anyone who may seek to acquire us. Although we describe below and elsewhere in this Annual Report the risks we consider to be the most material, there may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that also could have material adverse effects on our results of operations, financial condition, business or operations in the future. In addition, past financial performance may not be a reliable indicator of future performance and historical trends should not be used to anticipate results or trends in future periods. If any of the events described below, individually or in combination, were to occur, our businesses, prospects, financial condition, results of operations and / or cash flows could be materially adversely affected. ~~I- 26~~ Factors Relating to Competition and Technology We operate in increasingly competitive markets, and there is a risk that we will not be able to effectively compete with other service providers. The markets for ~~cable television,~~ broadband internet **, video** , telephony and mobile services are highly competitive. In the provision of video services, we face competition from FTA and digital terrestrial television (DTT) broadcasters, video provided via satellite platforms, networks using DSL, VDSL or vectoring technology, multi- channel multi- point distribution system operators, FTTx networks, OTT video service providers ~~,~~ and, in some countries where parts of our systems are overbuilt, cable networks, among others. Our operating businesses are facing increasing competition from video services provided by, or over the networks of, incumbent telecommunications operators and other service providers. As the availability and speed of broadband internet increases, we also face competition from OTT video content providers utilizing our or our competitors' high- speed internet connections. In the provision of telephony and broadband internet services, we are experiencing increasing competition from the incumbent telecommunications operators and other service providers in each country in which we operate, including for both retail and wholesale products and services, as well as providers of mobile voice and data. The incumbent telecommunications operators typically dominate the market for these services and have the advantage of nationwide networks and greater resources than we have to devote to the provision of these services. Many of the incumbent operators offer double- play, triple- play and ~~quadruple~~ **quad** - play bundles of services. In many countries, we also compete with other operators using local loop unbundling to provide these services, other facilities- based operators and wireless providers. Developments in DSL as well as investments into FTTx technology by the incumbent telecommunications operators and alternative providers have improved the attractiveness of our competitors' products and services and strengthened their competitive position. Developments in wireless technologies, such as 5G and FWA, are creating additional competitive challenges. In some of our markets, national and local government agencies may seek to become involved, either directly or indirectly, in the establishment of FTTx networks, DTT systems or other communications systems. ~~We~~ **While we** intend to pursue available options to restrict such involvement or to ensure that such involvement is on commercially reasonable terms ~~.~~ **,** ~~There~~ **there** can be no assurance ~~, however,~~ that we will be successful in these pursuits. As a result, we may face competition from entities not requiring a normal commercial return on their investments. In addition, we may face more vigorous competition than would have been the case if there ~~were~~ **was** no government involvement. We expect the level and intensity of competition to continue to increase from both existing competitors and the influx of new market entrants as a result of changes in the regulatory framework of the industries in which we operate, as well as strategic alliances and cooperative relationships among industry participants. Increased competition could result in increased customer churn, reductions of customer acquisition rates for some products and services and significant price and promotional competition in our markets. In combination with difficult economic environments, these competitive pressures could adversely impact our ability to increase or, in certain cases, maintain the revenue, average revenue per RGU or mobile subscriber, as applicable (ARPU), RGUs, mobile subscribers, Adjusted EBITDA (as defined in note 19 to our consolidated financial **I- 29** statements **included in Part II of this Annual Report on Form 10- K**), Adjusted EBITDA margins ~~and~~ **,** liquidity **and other financial and operational metrics** of our operating segments. Changes in technology may limit the competitiveness of and demand for our services. Technology in the video, telecommunications and data services industries is changing rapidly, including advances in current technologies and the emergence of new technologies. New technologies, products and services may impact consumer behavior and therefore demand for our products and services. The ability to anticipate changes in technology and consumer tastes and to develop and introduce new and enhanced products and services on a timely basis will affect our ability to continue to grow, increase our revenue and number of subscribers and remain competitive. New products and services, once marketed, may not meet consumer expectations or demand, can be subject to delays in development or may fail to operate as intended. A lack of market acceptance of new products and services that we may offer, or the development of significant competitive products or services by others, could have a material adverse impact on our ~~revenue~~ **financial** and ~~Adjusted EBITDA~~ **operational results** . Our significant property and equipment additions may not generate a positive return. Significant additions to our property and equipment are, or in the future may be, required to add customers to our networks and to upgrade or expand our broadband communications networks and upgrade CPE to enhance our service offerings and improve the customer experience. Additions to our property and equipment ~~, which are currently underway,~~ require significant capital expenditures for equipment and associated labor costs to build out and / or upgrade our networks **,** as well as for related CPE. Additionally, significant competition, the introduction of new technologies, the expansion of existing technologies, such as FTTx and advanced DSL technologies, the impact of natural disasters or adverse regulatory developments could cause us to decide to undertake previously unplanned builds or upgrades of our networks and CPE. ~~I- 27~~ No assurance can be given that any newbuilds, rebuilds, **acquisitions,** upgrades or extensions of our network will increase penetration rates, increase **ARPU** ~~average monthly subscription revenue per average cable RGU or mobile subscriber, as applicable,~~ or otherwise generate positive returns as anticipated, or that we will have adequate capital available to finance such newbuilds, rebuilds, upgrades **, acquisitions** or extensions. Additionally, costs related to our property and equipment additions could end up being greater than originally anticipated or planned. If this is the case, we may require additional financing sooner than anticipated, we may have to divert funding from other planned projects or we may have to delay or abandon some or all of our development and expansion plans or otherwise forego market opportunities. Additional financing may not be available on favorable terms, if at all, and our ability to incur additional debt **on favorable terms or at all** will be limited by our debt agreements. If we are unable to, or elect not to, pay for costs associated with adding new customers, expanding, extending or upgrading our networks or making our other planned or unplanned additions to our property and equipment, or are delayed in making such investments, our growth could be limited and our competitive position could be harmed. We depend almost exclusively on our relationships with third- party programming providers and broadcasters for programming content, and a failure to acquire a wide selection of popular programming on acceptable terms could adversely affect our business. The success of our video subscription business depends, in large part, on our ability to provide a wide selection of popular programming to our subscribers. In general, we do not produce our own content, and we depend on our agreements, relationships and cooperation with public and private broadcasters, **global and regional app providers,** rights holders and collective rights associations to obtain such content. If we fail to obtain a diverse array of popular programming for our pay ~~television~~ **video** services, including a sufficient selection of ~~HD channels as well as~~ non- linear content (such as a selection of attractive VoD content) and rights for ancillary services such as DVR and catch **-** up or' Replay' services, on satisfactory terms, we may not be able to offer a compelling video product to our customers at a price they are willing to pay. Additionally, we are frequently negotiating and renegotiating programming agreements and our annual costs for programming can vary. There can be no assurance that we will be able to renegotiate or renew the terms of our programming agreements on acceptable terms **,** or at all. There has also been a rise in the number of direct- to- consumer offerings from content owners which impacts negotiations and the content, rights available and restrictions imposed on us. Programming and copyright costs represent a significant portion of our operating costs and are subject to price rises in future periods due to various factors, including (i) higher costs associated with the expansion of our digital video content, including rights associated with ancillary product offerings and rights that provide for the broadcast of live sporting events **,** and (ii) rate increases, including as a result of inflationary pressures. If we are unable to obtain or retain attractively priced, competitive content, demand for our existing and future video services could decrease, thereby limiting our ability to attract new customers, maintain existing customers and / or migrate customers from lower- tier programming to higher- tier programming, thereby inhibiting our ability to execute our business plans. Furthermore, we may be placed at a competitive disadvantage if certain of our competitors obtain exclusive programming rights, particularly with respect to popular sports and movie programming ~~, and as certain players in the OTT market, for example Netflix, Amazon and Disney, increasingly produce their own exclusive content~~ . **I- 30** We depend on third- party suppliers and licensors to supply necessary equipment, software and certain services required for our businesses. We rely on third- party vendors for the equipment, software and services that we require in order to provide services to our customers. Our suppliers often conduct business worldwide and their ability to meet our needs is subject to various risks, including political and economic instability, natural calamities, interruptions in transportation or supply chain systems, terrorism and labor issues. As a result, we may not be able to obtain the equipment, software and services required for our businesses on a timely basis or on satisfactory terms. Any shortfall in CPE could lead to delays in completing extensions or upgrades to our networks and in connecting customers to our services and, accordingly, could adversely impact our ability to maintain or increase our RGUs, revenue and cash flows. Also, if demand exceeds the suppliers' and licensors' capacity or if they experience financial difficulties, the ability of our businesses to provide some services may be materially adversely affected, which in turn could affect our businesses' ability to attract and retain customers. ~~We~~ **Previously, we** have experienced certain business disruptions due to the **recent** worldwide silicon shortage, which has increased **, and may continue to increase,** the delivery lead times and pricing of certain of our key components. We cannot predict ~~how long such shortages will continue or~~ what future disruptions to our business **in relation to any further silicon and related component issues** . Although we actively monitor the creditworthiness of our key third- party suppliers and licensors, the financial failure of a key third- party supplier or licensor could disrupt our operations and have an adverse impact on our revenue and cash flows. We rely upon intellectual property that is owned or licensed by us to use various technologies, conduct our operations and sell our products and services. Legal challenges could be made against our use of our or our licensed intellectual property rights (such as trademarks, patents and trade secrets) and we may be required to enter into licensing arrangements on unfavorable terms, incur monetary damages or be enjoined from use of the intellectual property rights in question. Spectrum cost and availability and regulation may adversely affect our business, financial condition and operating results. As we continue to enhance the quality of our services in certain geographic areas and deploy new technologies, including 5G, we may need to acquire additional spectrum in the future. As a result, we will continue to actively seek to make additional investment in spectrum, which could be significant. ~~I- 28~~ The continued interest in, and acquisition of, spectrum by existing carriers and others may reduce our ability to acquire, and increase the acquisition cost of, spectrum in the secondary market or negatively impact our ability to gain access to spectrum through other means, including government auctions. Our return on investment in spectrum depends on our ability to attract additional customers and to provide additional services and usage to existing customers. Additionally, applicable regulatory bodies may not be able to provide sufficient additional spectrum to auction. We may also be unable to secure the spectrum necessary to maintain or enhance our competitive position in auctions or in the secondary market ~~,~~ on favorable terms or at all. Certain regulatory bodies may impose conditions on the acquisition or use of new wireless broadband mobile spectrum that may negatively impact our ability to obtain spectrum economically or in appropriate configurations or coverage areas. If we cannot acquire needed spectrum, if competitors acquire spectrum that allows them to provide competitive services or if we cannot deploy services over acquired spectrum on a timely basis without burdensome conditions, at reasonable costs, or while maintaining network quality levels, our ability to attract and retain customers and our business, financial condition and operating results could be materially adversely affected. Certain of our businesses that offer mobile telephony and data services rely on the radio access networks of third- party wireless network providers to carry our mobile communications traffic. Our services to mobile customers in Ireland rely on the use of an MVNO arrangement, currently with Three (Hutchison), whereby we utilize the radio access networks of a third- party wireless network provider to carry our mobile communications traffic. If our MVNO arrangement is terminated, or if Three (Hutchison) fails to provide the services required under our MVNO arrangement, or if it fails to deploy and maintain its network ~~,~~ and we are unable to find a replacement network operator on a timely and commercially reasonable basis **,** or at all, we could be prevented from continuing the mobile services relying on such MVNO arrangement. Additionally, as our MVNO arrangement comes to term, we may not be able to renegotiate renewal or replacement MVNO ~~arrangement~~ **arrangements** on the same or more favorable terms. Failure in our or third- party technology or telecommunications systems, leakage of sensitive customer data ~~,~~ or security breaches could significantly disrupt our operations, reduce our customer base and result in fines, litigation or lost revenue. Our success depends, in part, on the continued and uninterrupted performance of our information technology and network systems, including internet sites, data hosting and processing facilities and other hardware, software and technical applications and platforms, as well as our customer service centers. Some of these are managed, hosted, provided or used by third- party service providers or their vendors, to assist in conducting our business. In addition, the hardware supporting a large number of critical systems for our cable network in a particular country or geographic region is housed in a relatively small number of locations. Our and our third- party service providers' systems and equipment (including our routers and set- top boxes) are vulnerable to damage or security breach from a variety of sources, including telecommunications failures, power loss (such as **I- 31** blackouts or brownouts), malicious human acts, security flaws and natural disaster or extreme weather events (including heatwaves, large storms and floods, whether or not arising from short- term or long- term changes in weather patterns). Moreover, despite **our** security measures, unauthorized parties may gain access to or disrupt our or our third- party service providers' servers, systems and equipment by, among other things, hacking into our servers, systems and equipment or those of our third- party service providers through fraud, computer viruses, worms, phishing, physical or electronic break- ins or burglaries ~~,~~ or errors by our or our third- party service providers' employees. We and our third- party service providers may not be able to anticipate or respond in an adequate and timely manner to attempts to obtain ~~authorized~~ **unauthorized** access to, disable or degrade our or our third- party service providers' systems because the techniques for doing so change frequently, are increasingly complex and sophisticated and are difficult to detect for periods of time. In addition, as discussed further below, the security measures and procedures we and our third- party service providers have in place to protect personal data and other information may not be sufficient to counter all data security breaches, cyber- attacks or system failures. In some cases, mitigation efforts may depend on third parties who may not deliver products or services that meet the required contractual standards or whose hardware, software or network services may be subject to error, defect, delay or outage. Through our operations, sales and marketing activities, we collect and store certain personal information related to our customers. This may include phone numbers, drivers license numbers, contact preferences, personal information stored on electronic devices and payment information, including credit and debit card data. We also gather and retain information about employees in the normal course of business. In certain circumstances, where it is lawful to do so, we may share information about such persons with third- party service providers that assist with certain aspects of our business. Unauthorized parties may attempt to gain access to such data and information **directly from us or through those third parties** using the same methods described in the prior paragraph. As a result, data and information we gather could be subject to misappropriation, misuse, leakage, falsification or accidental release or loss of information maintained in our information technology systems and networks ~~and~~ **or** those of our third- party service providers, including customer and personnel data. As a result of the increasing awareness concerning the importance of safeguarding personal information, the potential misuse of such information and legislation that has been adopted or is being considered **in the U. S. and** across **some or** all of our markets regarding the protection, privacy and security of personal information, information- related risks are ~~I- 29~~ increasing, particularly for businesses like ours that handle a large amount of personal data. Failure to comply with these data protection laws may result in, among other consequences, fines, litigation or regulatory actions by **applicable** ~~local, state, federal or non- U. S. authorities~~ - **authoritative bodies** . Despite the precautions we have taken, unanticipated problems affecting our systems and equipment could cause business disruptions **,** such as failures in our information technology systems, disruption in the transmission of signals over our networks, unauthorized access to the data and information we gather or similar problems. Further, although we devote significant resources to our cybersecurity programs and have implemented security measures to protect our systems and data, and to prevent, detect and respond to data security incidents, there can be no assurance that our efforts will prevent these threats. Any disruptive situation that causes loss, misappropriation, misuse or leakage of data could damage our reputation and the credibility of our ~~operations~~ - **operating companies** and could subject us to potential liability, including litigation or other legal actions against us, the imposition of penalties, fines, fees or liabilities, which may not be covered by our insurance policies, and lost customers or revenue. **Our** ~~While we maintain~~ cyber liability insurance **(including** ~~that provides both~~ third- party liability and first- party liability **)** ~~insurance coverage, such insurance~~ may not be sufficient to protect against all of our businesses' losses from any future disruptions or breaches of their systems or other events as described above. Also, a cybersecurity breach and the changing cybersecurity landscape could require us to devote significant management resources to address the problems associated with the breach and to expend significant additional resources to upgrade further the security measures we employ to protect customer, employee and other personal information against cyber-attacks and other wrongful attempts to access such information, which could result in a disruption of our operations. This includes additional infrastructure capacity spending to mitigate any system degradation and the reallocation of resources from development activities. To date, other than the non- permitted access of ~~one of~~ **certain legacy** Virgin Media ~~' s~~ databases in February of 2020, we have not been subject to cyberattacks or network disruptions that, individually or in the aggregate, have been material to our operations or financial condition. Although we have not detected another material security breach or cybersecurity incident to date, we have been the target of events of this nature and expect to be subject to similar attacks in the future ~~. We and our third- party vendors rely on the availability of raw materials used to produce our CPE. If the materials become scarce or our supply chains for obtaining such materials are disrupted, we might be forced to expend significant resources to obtain replacement materials or experience significant delays in delivering certain CPE to our customers, which could damage our reputation, credibility and business and have a negative impact on our revenue or margins~~ . Factors Relating to Operations and Regulation Our businesses are conducted almost exclusively outside of the U. S., which gives rise to numerous operational risks. Our businesses operate almost exclusively in countries outside **of** the U. S. and are subject to the following inherent risks: • fluctuations in foreign currency exchange rates; • difficulties in staffing and managing international operations; • potentially adverse tax consequences; **I- 32** • export and import restrictions, custom duties, tariffs and other trade barriers; • increases in taxes and governmental fees; • economic and political instability; and • changes in foreign and domestic laws and policies that govern operations of foreign- based companies. Operational risks that we may experience in certain countries include disruptions of services or loss of property or equipment that are critical to overseas businesses due to expropriation, nationalization, war, insurrection, terrorism or general social or political unrest **. Legislation enacted in Bermuda as to economic substance may affect our operations. Pursuant to the Economic Substance Act 2018 of Bermuda, as amended (the ES Act), a registered entity, other than an entity which is resident for tax purposes in certain jurisdictions outside Bermuda that carries on as a business any one or more of the " relevant activities " referred to in the ES Act, must comply with economic substance requirements. The ES Act may require in- scope Bermuda entities which are engaged in such " relevant activities " to be directed and managed in Bermuda have an adequate level of qualified employees in Bermuda, incur an adequate level of annual expenditure in Bermuda, maintain physical offices and premises in Bermuda or perform core income- generating activities in Bermuda. The list of " relevant activities " includes carrying on any one or more of banking, insurance, fund management, financing, leasing, headquarters, shipping, distribution and service center, intellectual property and holding entities. To the extent we are conducting a relevant activity, we believe it will be the relevant activity of a " holding entity " within the meaning of the ES Act and we should only be subject to minimum economic substance requirements under the ES Act and related regulations. However, if we are deemed to be carrying on another " relevant activity, " other than that of a holding entity, we may be required to increase our substance in Bermuda in response to requirements imposed by the ES Act and related regulations. This could result in additional costs that could adversely affect our financial condition or results of operations** . We are exposed to foreign currency exchange rate risk. We are exposed to foreign currency exchange rate risk with respect to our consolidated debt in situations where our debt is denominated in a currency other than the functional currency of the operations **or assets** whose cash flows support our ability to repay or refinance such debt. Although we generally match the denomination of our and our subsidiaries' borrowings with the functional currency of the operations **or assets** that are supporting the respective borrowings, market conditions or other factors may cause us to enter into borrowing arrangements that are not denominated in the functional currency of the underlying operations (unmatched debt). In these cases, our policy is to provide for an economic hedge against foreign currency exchange rate movements by using derivative instruments to synthetically ~~I- 30~~ convert unmatched debt into the applicable underlying currency. At December 31, ~~2022~~ **2023** , substantially all of our debt was either directly or synthetically matched to the applicable functional currencies of the underlying operations. We are also exposed to foreign currency exchange rate risk ~~in~~ **with** respect ~~of~~ **to** our cash and cash equivalents and ~~in respect of~~ investments held ~~within~~ **under** separately **-** managed accounts **(SMAs)** . A substantial portion of our cash and cash equivalents is held in U. S. dollars, but we hold balances in other currencies reflecting the operational and strategic needs of the company. The investments held **under SMAs** ~~in our separately managed accounts~~ are generally in U. S. dollars, and any instruments denominated in a foreign currency are generally hedged back to the U. S. dollar. In addition, we are exposed to foreign currency risk to the extent that we enter into transactions denominated in currencies other than our or our subsidiaries' respective functional currencies (non- functional currency risk), such as equipment purchases, programming contracts, notes payable and notes receivable (including intercompany amounts). Changes in exchange rates with respect to amounts recorded on our consolidated balance sheets related to these items will result in unrealized (based upon period- end exchange rates) or realized foreign currency transaction gains ~~and~~ **or** losses upon settlement of the transactions. Moreover, to the extent that our revenue, costs and expenses are denominated in currencies other than our respective functional currencies, we will experience fluctuations in our revenue, costs and expenses solely as a result of changes in foreign currency exchange rates. Generally, we will consider hedging non- functional currency risks when the risks arise from agreements with third parties that involve the future payment or receipt of cash or other monetary items to the extent that we can reasonably predict the timing and amount of such payments or receipts and the payments or receipts are not otherwise hedged. In this regard, we have entered into foreign currency forward contracts to hedge certain of these risks. For additional information concerning our foreign currency forward contracts, see note 8 to our consolidated financial statements included in Part II of this Annual Report on Form 10- K. We are also exposed to unfavorable and potentially volatile fluctuations of the U. S. dollar (our reporting currency) against the currencies of our operating subsidiaries when their respective financial statements are translated into U. S. dollars for **I- 33** inclusion in our consolidated financial statements. Cumulative translation adjustments are recorded in accumulated other comprehensive earnings or loss as a separate component of equity. Any increase (decrease) in the value of the U. S. dollar against any foreign currency that is the functional currency of one of our operating subsidiaries will cause us to experience unrealized foreign currency translation losses (gains) with respect to amounts already invested in such foreign currencies. Accordingly, we may experience a negative impact on our comprehensive earnings or loss and equity with respect to our holdings solely as a result of foreign currency translation. Our primary exposure to foreign currency translation risk during the three months ended December 31, ~~2022~~ **2023** was to the euro and Swiss franc, as 55. 1 % and ~~43~~ **46** . ~~6~~ **7** % of our reported revenue during the period was derived from subsidiaries whose functional currencies are the euro and Swiss franc, respectively. In addition, our reported operating results are impacted by changes in the exchange rates for other local currencies in Europe. We do not hedge against the risk that we may incur non- cash losses upon the translation of the financial statements of our subsidiaries and affiliates into U. S. dollars. Our businesses are subject to risks of adverse regulation. Our businesses are subject to the unique regulatory regimes of the countries in which they operate. **Broadband internet,** ~~Video~~ **video** distribution ~~,~~ ~~broadband internet~~ , telephony and mobile services are subject to licensing or registration eligibility rules and regulations, which vary by country. Countries in which we operate may adopt laws and regulations regarding electronic commerce, which could dampen the growth of the internet services being offered and developed by our businesses. In a number of countries, our ability to increase prices for ~~,~~ or change our services, including the programming packages we offer **,** is limited by regulation or conditions imposed by competition authorities ~~or~~ **,** is subject to review by regulatory authorities or is subject to termination rights of customers. More significantly, regulatory authorities may require us, particularly if we are deemed to possess SMP or there are significant economic or physical replicability barriers, to grant third parties access to our networks, facilities or services to distribute their own services or resell our services to end customers. Consequently, our businesses must adapt their ownership and organizational structures as well as their pricing and service offerings to satisfy the rules and regulations to which they are subject. A failure to comply with applicable rules and regulations could result in penalties, restrictions on our business, loss of required licenses or other adverse conditions. Adverse changes in rules and regulations could: • impair our ability to use our networks in ways that would generate maximum revenue and Adjusted EBITDA; • create a shortage of capacity on our networks, which could limit the types and variety of services we seek to provide our customers; • impact our ability to access spectrum for our mobile services; • strengthen our competitors by granting them access and lowering their costs to enter into our markets; and ~~I- 31~~ • significantly and adversely impact our results of operations. Businesses, including ours, that offer multiple services, such as video distribution as well as internet, telephony, and / or mobile services, or that are vertically integrated and offer both video distribution and programming content, often face close regulatory scrutiny from competition authorities. This is particularly the case with respect to any proposed business combinations, which often require clearance from the European Commission or national competition authorities, which can block, impose conditions on ~~,~~ or delay an acquisition, thus possibly hampering our opportunities for growth. Additional scrutiny is also imposed under the national foreign direct investment screening regimes recently adopted by the U. K. and some E. U. Member States, which allow national governments to review and impose conditions on certain transactions involving critical infrastructures such as telecommunications. In the event conditions are imposed and we fail to meet them in a timely manner, the relevant authority or governments may impose fines and, if in connection with a transaction, may require restorative measures, such as a disposition of assets or divestiture of operations. For information on certain other regulatory developments that could adversely impact our results of operations in future periods, see Legal and Regulatory Proceedings and Other Contingencies in note 18 to our consolidated financial statements **included in Part II of this Annual Report on Form 10- K** . New and existing legislation, and interpretations thereof, may significantly alter the regulatory regimes applicable to us, which could adversely affect our competitive position and profitability, and we may become subject to more extensive regulation, particularly if we are deemed to possess significant market power in any of the markets in which we operate. Significant changes to the existing regulatory regimes applicable to the provision of **internet,** video, telephony ~~, internet~~ and mobile services have been and are still being introduced. For example, in the E. U., the Code is the primary source of communications regulation affecting our E. U. businesses, including access, user and privacy rights, video must- carry services and our competitive activities. The U. K. and Switzerland have systems that largely reflect the principles of the E. U. In addition, we are **I- 34** subject to regular review by national regulatory authorities in the E. U. and the U. K. concerning whether we exhibit SMP. A finding of SMP can result in our company becoming subject to open access, pricing and other requirements that could potentially advantage our competitors. This has resulted, for example, in obligations with respect to call termination for our telephony business in Europe and video and broadband internet access obligations in Belgium. If any laws, regulations or rules are enacted or reinterpreted so as to expand the regulation of our products and services or our disclosure obligations, they could affect our operations or require significant expenditures. For example, **a** certain **number** of our business operations will become subject to corporate responsibility reporting obligations pursuant to the CSRD in the coming years. We cannot predict future developments in these areas, and any changes to the regulatory framework for our products and services or our disclosure obligations could have a negative impact on our business and results of operations. **A certain number of our operations will become subject to reporting obligations under the CSRD as of January 1, 2024.** The U. K.' s departure from the E. U. could have a material adverse effect on our business, financial condition, results of operations or liquidity. The U. K. formally exited the E. U. on January 31, 2020, and on December 24, 2020, entered into the E. U.- U. K. Agreement. For more information regarding the E. U.- U. K. Agreement, see **the** Item 1. Business- Regulatory Matters- Overview discussion above. Examples of the potential impact Brexit ~~could~~ **has had, and may continue to** have **,** on our business, financial condition or results of operations include: • changes in foreign currency exchange rates and disruptions in the capital markets. For example, a sustained period of weakness in the British pound sterling or the euro could have an adverse impact on our liquidity, including our ability to fund repurchases of our equity securities and other U. S. dollar- denominated liquidity requirements; • shortages of labor necessary to conduct our business; • disruption to our U. K. supply chain and related increased cost of supplies; • a weakened U. K. economy resulting in decreased consumer demand for our products and services in the U. K.; • legal uncertainty, increased compliance costs and potentially divergent national laws and regulations as the U. K. determines which E. U. laws and directives to replace or replicate, or where previously implemented by enactment of U. K. laws or regulations, to retain, amend or repeal; and • various geopolitical forces may impact the global economy and our business, including, for example, other E. U. ~~member~~ **Member** ~~states~~ **States** (in particular those ~~member~~ **Member** ~~states~~ **States** where we have operations) proposing referendums to, or electing to, exit the E. U. We cannot be certain that we will be successful with respect to acquisitions, dispositions, joint ventures, partnerships or other similar transactions, or that we will achieve the anticipated benefits thereof. Historically, our businesses have grown, in part, through selective acquisitions that enabled them to take advantage of existing networks, local service offerings and region- ~~I- 32~~ specific management expertise, and we have also taken advantage of attractive opportunities to sell select businesses and partner with others. We expect to seek to continue improving our company through attractive acquisitions, dispositions, joint ventures, partnerships or other similar transactions in ~~selected~~ -- **select** markets, such as ~~the Sunrise Acquisition in November 2020~~ , the sale of UPC Poland in April 2022 ~~and~~ **,** the Telenet Tower Sale in June 2022 **and the Telenet Takeover Bid in October 2023** , as well as the formations of the VMO2 JV in June 2021, the AtlasEdge JV in September 2021 and the nexfibre JV in December 2022 **and the creation of Wyre by Telenet and Fluvius in July 2023** . Our ability to complete any transaction may be limited by many factors, including government regulation, availability of financing, our or our counterparty' s debt covenants, the prevalence of complex ownership structures among potential targets, acquirers, joint ventures or partners, disapproval by shareholders of potential targets or acquirers, and competition from other potential acquirers, including private equity funds. Even if we are successful in completing such transactions, integration and separation activities may present significant costs and challenges. We cannot be assured that we will be successful with respect to acquisitions, dispositions, joint ventures, partnerships or other similar transactions or realizing the anticipated benefits thereof. In addition, we anticipate that most ~~, if not all,~~ companies acquired by us will be located outside the U. S. Foreign companies may not have disclosure controls and procedures or internal controls over financial reporting that are as thorough or effective as those required by U. S. securities laws and applicable accounting rules. While we intend to conduct appropriate due diligence and to implement appropriate controls and procedures as we integrate acquired companies, we may not be able to certify as to the effectiveness of these companies' disclosure controls and procedures or internal controls over financial reporting until we have fully integrated them. **I- 35** The expected synergies and benefits from our acquisitions and joint ventures may not be realized in the amounts anticipated or may not be realized within the expected time frame, and risks associated with the foregoing may also result from the extended delay in the integration of the companies. Our ability to realize the anticipated benefits of our acquisitions and joint ventures will depend, to a large extent, on our ability to integrate our businesses and the acquired or joint venture company' s business in a manner that facilitates growth opportunities and achieves the projected cost savings. In addition, some of the anticipated synergies are not expected to occur for some time following the completion of such acquisitions and joint ventures and will require substantial capital expenditures before realizing some of those synergies. ~~The COVID- 19 pandemic~~ **Public health crises and other geopolitical or macroeconomic events** may delay, reduce or eliminate some of our anticipated synergies and other benefits, including a delay in the integration of, or inability to integrate, the business that we acquire or partner with. Even if we are able to integrate successfully, the anticipated benefits of such transactions, including the expected synergies and network benefits, may not be realized fully or at all or may take longer to realize than expected. We have incurred substantial expenses as a result of completing our various acquisitions and joint ventures. We expect that substantial additional expenses will need to be incurred in order to integrate the businesses, operations, policies, and procedures. While we have assumed that a certain level of transaction- related expenses will be incurred, factors beyond our control could affect the total amount or the timing of these expenses. Many of the expenses that will be incurred, by their nature, are difficult to estimate accurately. These expenses could exceed the costs historically borne by us and offset, in whole or in part, the expected synergies. Our integration efforts may not be executed successfully, or such integration may be more difficult, time consuming or costly than expected. Operating costs, customer loss and business disruption, including maintaining relationships with employees, customers, suppliers or vendors, may be greater than expected. The combination of independent businesses is complex, costly and time- consuming, and may divert significant management attention and resources. This process may disrupt our business or otherwise impact our ability to compete. The overall combination of our and the businesses of those companies that we acquire or partner with may also result in material unanticipated problems, expenses, liabilities, competitive responses and impacts and loss of customers and other business relationships. The difficulties of combining the operations of the companies include, among others: • diversion of management attention to integration matters; • difficulties in integrating operations and systems, including intellectual property and communications systems, administrative and information technology infrastructure, and supplier and vendor arrangements ~~, including as a result of the COVID- 19 pandemic~~ ; • challenges in conforming standards, controls, procedures and accounting and other policies; • alignment of key performance measurements may result in a greater need to communicate and manage clear expectations while we work to integrate and align policies and practices; • difficulties in integrating employees; ~~I- 33~~ • the transition of management to the combined company management team, and the need to address possible differences in corporate cultures, management philosophies ~~,~~ and compensation structures; • challenges in retaining existing customers and obtaining new customers; • compliance with government regulations **;** • known or potential unknown liabilities of the acquired businesses that are larger than expected; and • other potential adverse consequences and unforeseen increased expenses or liabilities associated with the applicable transaction. Additionally, uncertainties over the integration process could cause customers, suppliers, distributors, dealers, retailers and others to seek to change or cancel our existing business relationships or to refuse to renew existing relationships. Suppliers, distributors and content and application providers may also delay or cease developing new products for us that are necessary for the operations of our business due to uncertainties or lack of available resources. Competitors may also target our existing customers by highlighting potential uncertainties and integration difficulties. Some of these factors are outside our control, and any one of them could result in lower revenues, higher costs and diversion of management time and energy, which could adversely impact our business, financial condition and operating results. In addition, even if the integration is successful, the full benefits of our acquisitions and partnerships including, among **I- 36** others, the synergies, cost savings or sales or growth opportunities may not be realized. As a result, it cannot be assured that we will realize the full benefits expected from such transactions within the anticipated time frames or at all. Certain operations are conducted by joint ventures that we cannot operate solely for our benefit. Certain of our operations, particularly the VMO2 JV in the U. K. and the VodafoneZiggo JV in the Netherlands, are conducted through joint ventures or partnerships. We share ownership and management of these joint venture with one or more parties who may or may not have the same goals, strategies, priorities or resources as we do. In general, joint ventures are intended to be operated for the benefit of all co- owners, rather than for our exclusive benefit. Operating a business as a joint venture often requires additional organizational formalities as well as time- consuming procedures for sharing information, accounting and making decisions. In certain cases, our joint venture partners must agree in order for the applicable joint venture to take certain actions. Our inability to take unilateral action that we believe is in our best interests may have an adverse effect on the ~~financial~~ **financials or** performance of the joint venture and the return on our investment. In joint ventures, we believe our relationship with our co- owners is an important factor to the success of the joint venture, and if a co- owner changes, our relationship may be adversely affected. In addition, the benefits from a successful joint venture are shared among the co- owners, so that we do not receive all the benefits from our successful joint ventures. Our interests in the VodafoneZiggo JV and the VMO2 JV are held pursuant to Shareholders Agreements that contain provisions relating to governance as well as transfer and exit rights, which, depending on the circumstances, may not be in the best interest of our company. Our noncontrolling interests in the VodafoneZiggo JV and the VMO2 JV are held pursuant to shareholders' agreements (each a Shareholders ~~Agreements~~ - **Agreement**), which provides the terms of the governance of the VodafoneZiggo JV and the VMO2 JV, as applicable, including among others, decision- making ~~process~~ **processes** , information access, dividend ~~policy~~ **policies** and non-compete provisions. These provisions may prevent the VodafoneZiggo JV or the VMO2 JV, as applicable **,** from making decisions or taking actions that would protect or advance the interests of our company, and could even result in the VodafoneZiggo JV or the VMO2 JV, as applicable, making decisions or taking actions that adversely impact our company. Further, our ability to access the cash of the VodafoneZiggo JV or the VMO2 JV, as applicable, pursuant to the dividend policy contained in the Shareholders Agreements may be restricted in certain circumstances. The Shareholders Agreements also provide for restrictions on the transfer of interests in the VodafoneZiggo JV and the VMO2 JV, as applicable, which could adversely affect our ability to sell our interest in the VodafoneZiggo JV or the VMO2 JV, as applicable, and / or the prices at which our interest may be sold, as well as certain exit arrangements, which could force us to sell our interest. For additional information on the VodafoneZiggo JV or the VMO2 JV and their respective Shareholders Agreement, see note 7 to our consolidated financial statements included in Part II of this Annual Report on Form 10- K. We may have exposure to additional tax liabilities. We are subject to income taxes as well as non- income based taxes, such as value- added ~~tax~~ **taxes** (VAT) in the U. K., the U. S. and many other jurisdictions around the world. In addition, most tax jurisdictions that we operate in have complex and subjective rules regarding the valuation of intercompany services, cross- border payments between affiliated companies and the related effects on income tax, VAT and transfer tax. Significant judgment is required in determining our worldwide provision for income taxes and other tax liabilities. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are regularly under audit by tax authorities in many of the jurisdictions in which we operate. These audits may lead to disputes with tax ~~I- 34~~ authorities which may result in litigation. Although we believe that our tax estimates are reasonable, any material differences as a result of final determinations of tax audits or tax disputes could have an adverse effect on our financial position and results of operations in the period or periods for which such determination is made. We are subject to changing tax laws, treaties and regulations in and between **the** countries in which we operate, including treaties between and among the U. K., the U. S. and many other jurisdictions in which we have a presence. Also, various income tax proposals in the jurisdictions in which we operate could result in changes to the existing laws on which our deferred taxes are calculated. A change in these tax laws, treaties or regulations, or in the interpretation thereof, could result in a materially higher income or non- income tax expense, and any such material changes could cause a material change in our effective tax rate. In this regard, there have been significant changes or proposed changes to the tax laws in numerous jurisdictions in which we operate, the impacts of which have been reflected accordingly in our financial statements. ~~Further~~ **These** changes **have** ~~in the tax laws of the foreign jurisdictions in which we operate could arise as a result of the Base Erosion and Profit Shifting (BEPS) project undertaken by the Organizational Economic Cooperation and Development (OECD). The OECD represents a coalition of member countries that encompass most of the jurisdictions in which we operate. In October 2021, the OECD announced the OECD / G20 Inclusive Framework of Base Erosion and Profit Shifting, which agreed to a two- pillar solution to reform international taxation. Pillar One provides a mechanism to align taxing rights more closely with local market engagement; generally, where people or consumers are located. Pillar Two establishes a global minimum tax regime through a series of interlocking rules that would apply when a country' s income tax rate is below 15 %. In most jurisdictions in which we operate, it is anticipated that the Pillar Two rules will be enacted by the end of 2023 with the income inclusion rule applying to accounting periods beginning on or after December 31, 2023 and the undertaxed profits rule taking effect for years beginning from December 31, 2024. It is possible that jurisdictions in which we do business could react to the BEPS initiatives or their own concerns by enacting tax legislation that could adversely affect our financial position through increasing our tax liabilities. Further, the BEPS project as well as legislative changes in many countries, has~~ resulted in various initiatives that require the sharing of company financial and ~~operation~~ - **operating** information with taxing authorities on a local or global basis. This may lead to greater audit scrutiny of profits earned in other countries as well as disagreements between jurisdictions associated with the proper allocation of profits between jurisdictions. **Broadly, we are subject to tax laws in the jurisdictions where we have operations, a presence and where we are legally incorporated. In considering these factors and others, it is possible that taxing authorities of the jurisdictions we operate in and taxing authorities of other**

different jurisdictions may claim that we are a tax resident of such other countries, which could result in additional operational and financial complications for us. I- 37 The " Virgin " brand is used by certain of our consolidated subsidiaries and nonconsolidated joint ventures under licenses from Virgin Enterprises Limited and is not under the control of such subsidiaries. The activities of the group of companies utilizing the " Virgin " brand and other licensees could have a material adverse effect on the goodwill of customers towards our business as a licensee **,** and the licenses from Virgin Enterprises Limited can be terminated in certain circumstances. The " Virgin " brand is integral to the corporate identity of **certain of** our consolidated subsidiaries and ~~nonconsolidated joint venture~~ **the VMO2 JV** that utilize such brand. Such ~~subsidiaries~~ **entities** are reliant on the general goodwill of consumers towards the **"** Virgin **"** brand. Consequently, adverse publicity in relation to the group of companies utilizing the " Virgin " brand or its principals, particularly Sir Richard Branson, who is closely associated with the brand, or in relation to another licensee of the " Virgin " name and logo (particularly in the U. K., where the VMO2 JV does business) could have a material adverse effect on our reputation and our business and results of operations. In addition, the licenses from Virgin Enterprises Limited can be terminated in certain circumstances. For example, Virgin Enterprises Limited can terminate the licenses, after providing our applicable subsidiaries **and joint ventures** with an opportunity to cure, (i) if they or any of their affiliates commit persistent and material breaches or flagrant and material breaches of the licenses, (ii) if Virgin Enterprises Limited has reasonable grounds to believe that the use (or lack of use) of the licensed trademarks by such subsidiaries has been or is likely to result in a long- term and material diminution in the value of the " Virgin " brand ~~,~~ or (iii) if a third- party who is not (or one of whose directors is not) a " fit and proper person ", such as a legally disqualified director or a bankrupt entity, acquires " control " of Liberty Global. Such a termination could have a material adverse effect on our business and results of operations. Factors Relating to Certain Financial Matters Our substantial leverage could limit our ability to obtain additional financing and have other adverse effects. We seek to maintain our debt at levels that provide for attractive equity returns without assuming undue risk. In this regard, we generally seek to cause our operating subsidiaries **and joint ventures** to maintain their debt at levels that result in a consolidated debt balance that is between four and five times our consolidated Adjusted EBITDA (using consistent currency exchange rates for debt and **Adjusted** EBITDA). As a result, we are highly leveraged. At December 31, ~~2022~~ **2023** , the outstanding principal amount of our consolidated debt, together with our finance lease obligations aggregated $ ~~13~~ **15** . ~~8~~ **9** billion, including $ 0. 8 billion that is classified as current on our consolidated balance sheet and $ ~~12.~~ 7 **. 5** billion that is not due until ~~2028~~ **2029** or thereafter. We believe that we have sufficient resources to repay or refinance the current portion of our debt and finance lease obligations and to fund our foreseeable liquidity requirements during the next 12 months. However, as ~~our~~ **the amount of debt that is** maturing **increases** ~~debt grows~~ in later years, we anticipate that we will seek to refinance or otherwise extend our debt ~~maturities. In this regard, we redeemed certain debt instruments using proceeds from the sale of UPC Polska, and targeted such redemptions at instruments with shorter~~ maturities. As a result of unfavorable ~~I- 35~~ geopolitical conditions in ~~2022~~ **2023** , credit markets were not offering attractive terms for issuance and thus we did not complete any refinancing transactions on our consolidated businesses. No assurance can be given that we will be able to complete these refinancing transactions or otherwise extend our debt maturities. In this regard, it is not possible to predict how political and economic conditions, sovereign debt concerns or any adverse regulatory developments could impact the credit and equity markets we access and, accordingly, our future liquidity and financial position. Our ability to service or refinance our debt and to maintain compliance with the leverage covenants in the credit agreements and indentures of our borrowing groups is dependent primarily on our ability to maintain or increase the Adjusted EBITDA of our operating subsidiaries and **joint ventures and** to achieve adequate returns on our property and equipment additions and acquisitions. In addition, our ability to obtain additional debt financing is limited by the incurrence- based leverage covenants contained in the various debt instruments of our borrowing groups. For example, if the Adjusted EBITDA of one of our borrowing groups were to decline, our ability to obtain additional debt could be limited. Accordingly, if our cash provided by operations declines or we encounter other material liquidity requirements, we may be required to seek additional debt or equity financing in order to meet our debt obligations and other liquidity requirements as they come due. In addition, our current debt levels may limit our ability to incur additional debt financing to fund working capital needs, acquisitions, property and equipment additions ~~,~~ or other general corporate requirements. We can give no assurance that any additional debt or equity financing will be available on terms that are as favorable as the terms of our existing debt **,** or at all. Further, our board of directors ~~has~~ **may** ~~approved~~ - **approve** a share repurchase program for Liberty Global in ~~2022~~ **2024** . Any cash used by our company in connection with any future repurchases of our ~~ordinary~~ **common** shares would not be available for other purposes, including the repayment of debt. For additional information concerning our share repurchase programs, see note 14 to our consolidated financial statements included in Part II of this Annual Report on Form 10- K. Certain of our subsidiaries **and joint ventures** are subject to various debt instruments that contain restrictions on how we finance our operations and operate our businesses, which could impede our ability to engage in beneficial transactions. Certain of our subsidiaries **and joint ventures** are subject to significant financial and operating restrictions contained in outstanding credit agreements, indentures and similar instruments of indebtedness. These restrictions will affect, and in some cases significantly limit or prohibit, among other things, the ability of those subsidiaries **and joint ventures** to: **I- 38** • incur or guarantee additional indebtedness; • pay dividends or make other upstream distributions; • make investments; • transfer, sell or dispose of certain assets, including subsidiary stock; • merge or consolidate with other entities; • engage in transactions with us or other affiliates; or • create liens on their assets. As a result of restrictions contained in these debt instruments, the companies party thereto, and their subsidiaries, could be unable to obtain additional capital in the future to: • fund property and equipment additions or acquisitions that could improve their value; • meet their loan and capital commitments to their business affiliates; • invest in companies in which they would otherwise invest; • fund any operating losses or future development of their business affiliates; • obtain lower borrowing costs that are available from secured lenders or engage in advantageous transactions that monetize their assets; or • conduct other necessary or prudent corporate activities. In addition, most of the credit agreements to which these subsidiaries **and joint ventures** are parties include financial covenants that require them, in certain circumstances, to maintain certain leverage ratios if the drawings under the applicable revolving credit facility exceed a certain percentage of the commitments under such revolving credit facility. Their ability to meet these financial covenants may be affected by adverse economic, competitive ~~,~~ or regulatory developments and other events beyond their control, and we cannot assure you that these financial covenants will be met. In the event of a default under such subsidiaries' ~~I- 36~~ **and joint ventures'** credit agreements or indentures, the lenders or bondholders, as applicable, may accelerate the maturity of the indebtedness under those agreements or indentures, which could result in a default under other outstanding credit facilities or indentures. We cannot assure you that any of these subsidiaries **or joint ventures** will have sufficient assets to repay indebtedness outstanding under their credit agreements and indentures. Any refinancing of this indebtedness is likely to contain similar restrictive covenants. We are exposed to interest rate risks. Shifts in such rates may adversely affect the debt service ~~obligation~~ **obligations** of our subsidiaries **and joint ventures** . We are exposed to the risk of fluctuations in interest rates, primarily through the credit facilities of certain of our subsidiaries **and joint ventures** , which are indexed to EURIBOR, ~~LIBOR~~ **Secured Overnight Financing Rate (SOFR), Term Secured Overnight Financing Rate (Term SOFR), Sterling Overnight Index Average (SONIA), Swiss Average Rate Overnight (SARON)** or other base rates. Although we enter into various derivative transactions to manage exposure to movements in interest rates, there can be no assurance that we will be able to continue to do so at a reasonable cost **,** or at all. If we are unable to effectively manage our interest rate exposure through derivative transactions, any increase in market interest rates would increase our interest rate exposure and debt service obligations, which would exacerbate the risks associated with our leveraged capital structure. ~~In July 2017,~~ **There have been significant changes in** the **benchmark interest** ~~U. K. Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit~~ rates **used** ~~for the calculation of LIBOR after 2021. Additionally, the European Money Markets Institute (the authority that administers EURIBOR) announced that measures would need~~ to **set floating rates on our debt and derivative instruments** ~~be undertaken by the end of 2021 to reform EURIBOR to ensure compliance with the E~~ . ~~U. Benchmarks Regulation. In November 2020,~~ ICE Benchmark Administration (the entity that administers LIBOR) **ceased** ~~announced its intention~~ to ~~continue publishing~~ --- **publish CHF and GBP LIBOR rates after December 31, 2021, and it ceased to publish** USD LIBOR rates ~~until~~ **after** June 30, 2023 ~~, with the exception of the one- week and two- month rates which, along with all CHF and GBP LIBOR rates, it ceased to publish after December 31, 2021. Furthermore, in November 2022, the U. K. Financial Conduct Authority proposed that certain tenors of USD LIBOR would continue to be published on a synthetic basis until the end of September 2024. While this extension allows additional runway on existing contracts using USD LIBOR rates, companies are still encouraged to transition away from using USD LIBOR as soon as practicable and should not enter into new contracts that use USD LIBOR after 2021~~ . The methodology for EURIBOR has been reformed and EURIBOR has been granted regulatory approval to continue to be used. **We have agreed amendments** ~~Currently, there is no consensus amongst loan borrowers and investors for what rate (s) should replace USD LIBOR. In October 2020, the International Swaps and Derivatives Association (the ISDA) launched the Fallback Supplement, which, as of January 25, 2021, amended the standard definitions for interest rate derivatives to incorporate fallbacks for derivatives linked to certain key interbank offered rates (IBORs). The ISDA also launched the Fallback Protocol, a protocol that enables market participants to incorporate these revisions into their legacy non- cleared derivatives with other counterparties that choose to adhere to the protocol. The fallbacks for a particular currency apply following a permanent cessation of the IBOR~~ in ~~that currency,~~ **respect of all of** ~~or~~ **our** ~~in the case of a LIBOR setting, that LIBOR setting becoming permanently unrepresentative, and are adjusted versions of the risk- free rates identified in each currency. Our credit agreements contain provisions that contemplate alternative calculations of the base rate applicable to our LIBOR- indexed and EURIBOR- indexed~~ debt **and** ~~to the extent LIBOR or EURIBOR (as applicable) are not available, which alternative calculations we do not anticipate will be materially different from what would have been calculated under LIBOR or EURIBOR (as applicable). Additionally, no mandatory prepayment or redemption provisions would be triggered under our credit agreements in the event that either the LIBOR rate or the EURIBOR rate is not available. It is possible, however, that any new reference rate that applies to our LIBOR- indexed or EURIBOR- indexed debt could be different from any new reference rate that applies to our LIBOR- indexed or EURIBOR- indexed~~ derivative instruments **to replace the ceased rates** . For **USD** ~~discontinued currencies and tenors~~ , ~~we expect to continue taking steps to mitigate the changes in~~ these **reference SOFR administered** ~~benchmark rates, including~~ by ~~amending existing credit agreements and adhering to~~ the **Federal Reserve Bank of New York** ~~Fallback Protocol, where appropriate. We plan to continue to manage this difference and any resulting increased variable- rate exposure through modifications to our~~ - **or** ~~debt and /~~ **Term SOFR administered by CME Group Benchmark Administration Limited.** ~~or~~ **For CHF** ~~derivative instruments~~ , ~~however~~ **these reference SARON administered by the SIX Swiss Exchange. For GBP** , **these reference SONIA administered by the Bank** ~~future market conditions may not allow immediate implementation~~ of **England** ~~desired modifications and our subsidiaries may incur significant associated costs~~ . We are subject to increasing operating costs and inflation risks, which may adversely affect our results of operations. While our operations attempt to increase our subscription rates to offset increases in programming, inputs and operating costs, **I- 39** there is no assurance that they will be able to do so. In certain countries in which we operate, our ability to increase subscription rates is subject to regulatory controls. Also, our ability to increase subscription rates may be constrained by competitive pressures. Therefore, programming, inputs and operating costs may rise faster than associated revenue, resulting in a material negative impact on our cash flows and net earnings ~~(~~ **or** loss ~~)~~ . We are also impacted by inflationary ~~increases~~ **pressures, which remain elevated,** in salaries, wages, benefits, regulatory, energy and other administrative costs in certain of our markets as a result of, among other things, **the ongoing invasion of Ukraine by** Russia ~~' s war in Ukraine. In this regard, inflation rates in the countries in which we operate have recently increased,~~ and **the Israeli- Palestinian conflict** ~~in many countries, such increases have been significant~~ . Continuing uncertainties and challenging conditions in the global economy and in the countries in which we operate may adversely impact our business, financial condition and results of operations. The current macroeconomic environment is highly volatile, with continued instability in global markets, including ongoing trade negotiations, uncertainty over inflation, energy price fluctuations, **rising interest rates,** continued escalation in geopolitical tensions and global recession fears having all contributed to a ~~I- 37~~ challenging global economic environment. Future developments are dependent upon a number of political and economic factors, including the additional borrowing incurred by countries during the COVID- 19 pandemic and the potential for lower growth expectations, higher global interest rates and continued inflationary pressures. As a result, we cannot predict how long challenging conditions will exist or the extent to which the markets in which we operate may deteriorate. Additional risks arising from the ongoing economic challenges in Europe are described below under the Risk Factor titled: We are exposed to sovereign debt and currency instability risks that could have an adverse impact on our liquidity, financial condition and cash flows. Unfavorable economic conditions, including the current cost- of- living crises in many of the countries in which we operate, may impact a significant number of our subscribers and / or the prices we are able to charge for our products and services ~~,~~ and, as a result, it may be (i) more difficult for us to attract new subscribers and maintain current subscribers, (ii) more likely that subscribers will downgrade or disconnect their services and (iii) more difficult for us to maintain ARPUs at existing levels. Countries may also seek new or increased revenue sources due to fiscal deficits. Such actions may further adversely affect our company and our joint ventures. Accordingly, our ability to increase ~~,~~ or, in certain cases, maintain, the revenue, ARPUs, RGUs, mobile subscribers, Adjusted EBITDA, margins and liquidity of our operating segments could be adversely affected if the macroeconomic environment remains uncertain or declines further. We are currently unable to predict the extent of any of these potential adverse effects. We are exposed to sovereign debt and currency instability risks that could have an adverse impact on our liquidity, financial condition and cash flows. Our operations are subject to macroeconomic and political risks that are outside of our control. For example, high levels of sovereign debt in the U. S. and several countries in which we or our affiliates operate, combined with structural changes arising from the COVID- 19 pandemic, could potentially lead to additional fiscal reforms (including austerity measures), tax increases, sovereign debt restructurings, high corporate default rates, currency instability, increased counterparty credit risk, high levels of volatility and disruptions in the credit and equity markets, as well as other outcomes that might adversely impact our company. With regard to currency instability issues, concerns exist in the Eurozone with respect to individual macro- fundamentals on a country- by- country basis, as well as with respect to the overall stability of the European monetary union and the suitability of a single currency to appropriately deal with specific fiscal management and sovereign debt issues in individual Eurozone countries. The realization of these concerns could lead to the exit of one or more countries from the European monetary union and the re- introduction of individual currencies in these countries, or, in more extreme circumstances, the possible dissolution of the European monetary union entirely, which could result in the redenomination of a portion or, in the extreme case, all of our ~~Euro~~ **euro** - denominated assets, liabilities and cash flows to the new currency of the country in which they originated. This could result in a mismatch in the currencies of our assets, liabilities and cash flows. Any such mismatch, together with the capital market disruption that would likely accompany any such redenomination event, could have a material adverse impact on our liquidity and financial condition. Furthermore, any redenomination event would likely be accompanied by significant economic dislocation, particularly within the ~~eurozone~~ **Eurozone** countries, which in turn could have an adverse impact on demand for our products and services, and accordingly, on our revenue and cash flows. Moreover, any changes from ~~Euro~~ **euro** to non- ~~Euro~~ **euro** currencies within the countries in which we operate would require us to modify our billing and other financial systems. No assurance can be given that any required modifications could be made within a time frame that would allow us to timely bill our customers or prepare and file required financial reports. In light of the significant exposure that we have to the ~~Euro~~ **euro** through our ~~Euro~~ **euro** - denominated borrowings, derivative instruments, cash balances and cash flows, a redenomination event could have a material adverse impact on our company. We may not freely access the cash of our operating companies. Our operations are conducted through our subsidiaries. Our current sources of corporate liquidity include (i) our cash and cash equivalents, (ii) investments held within **SMAs** ~~separately managed accounts,~~ and (iii) interest and dividend income received on our cash and cash equivalents and investments. From time to time, we also receive (a) proceeds in the form of distributions or loan repayments from our subsidiaries or affiliates, (b) proceeds upon the disposition of investments and other assets and (c) proceeds in connection with the incurrence of debt or the issuance of equity securities. The ability of our operating subsidiaries to pay dividends or to make other payments or advances to us depends on their **I- 40** individual operating results and any statutory, regulatory or contractual restrictions to which they may be or may become subject and in some cases our receipt of such payments or advances may be limited due to tax considerations or the presence of noncontrolling interests. Most of our operating subsidiaries are subject to credit agreements or indentures that restrict sales of assets and prohibit or limit the payment of dividends or the making of distributions, loans or advances to shareholders and partners, including us. In addition, because these subsidiaries are separate and distinct legal entities they have no obligation to provide us funds for payment obligations, whether by dividends, distributions, loans or other payments. We are exposed to the risk of default by the counterparties to our cash and short- term investments, derivative and other financial instruments ~~,~~ and undrawn debt facilities. Although we seek to manage the credit risks associated with our cash and short- term investments, derivative and other financial instruments ~~,~~ and undrawn debt facilities, we are exposed to the risk that ~~I- 38~~ our counterparties will default on their obligations to us. While we regularly review our credit exposures and currently have no specific concerns about the creditworthiness of any counterparty for which we have material credit risk exposures, we cannot rule out the possibility that one or more of our counterparties could fail or otherwise be unable to meet its obligations to us. Any such instance of default or failure could have an adverse effect on our cash flows, results of operations, financial condition and / or liquidity. In this regard, (i) we may incur losses to the extent that we are unable to recover debts owed to us, including cash deposited and the value of financial losses, (ii) we may incur significant costs to recover amounts owed to us, and such recovery may take a long period of time or may not be possible at all, (iii) our derivative liabilities may be accelerated by the default of our counterparty, (iv) we may be exposed to financial risks as a result of the termination of affected derivative contracts, and it may be costly or impossible to replace such contracts or otherwise mitigate such risks, (v) amounts available under committed credit facilities may be reduced and (vi) disruption to the credit markets could adversely impact our ability to access debt financing on favorable terms, or at all. At December 31, ~~2022~~ **2023**, our exposure to counterparty credit risk included (i) ~~cash and cash equivalent and restricted cash balances of $ 1. 7 billion, (ii)~~ aggregate undrawn debt facilities of $ 1. ~~5~~ **6 billion, (ii) cash and cash equivalent and restricted cash balances of $ 1. 4** billion and (iii) derivative assets with an aggregate fair value of $ ~~0~~ **232**. 9 ~~billion~~ **million**. For additional information regarding our derivative ~~contracts~~ **instruments** and debt, see notes 8 and 11, respectively, to our consolidated financial statements included in Part II of this Annual Report on Form 10- K. We may not report net earnings. We reported earnings (loss) from continuing operations of **($ 3, 873. 8 million),** $ 1, 105. 3 million ~~,~~ **and** $ 13, 527. 5 million ~~and ($ 1, 525. 1 million)~~ during **2023,** 2022 ~~,~~ **and** 2021 ~~and 2020~~, respectively. In light of our historical financial performance, we cannot assure you that we will report net earnings in the near future. Other Factors We have not historically paid any cash dividends, and we may not pay dividends consistently or at all on any class of our ~~ordinary~~ **common** shares. We ~~do~~ **have** not **historically paid** ~~presently intend to pay cash~~ dividends on any class of **of** our ~~ordinary~~ **common** shares **,** ~~for the foreseeable future. However~~ **however**, we have the right to pay dividends, effect securities distributions or make bonus issues on Liberty Global shares. ~~In addition, any dividends or distributions on, or repurchases of Liberty Global shares will reduce our " Distributable Reserves " (defined as our accumulated, realized profits less accumulated, realized losses, as measured for U. K. statutory purposes) legally available to be paid as dividends by our company under English law on any of our ordinary shares.~~ The loss of certain key personnel could harm our business. We have experienced employees at both the corporate and operational levels who possess substantial knowledge of our business and operations. We cannot **be** ~~assure~~ **assured** ~~you~~ that we will be successful in retaining their services or that we would be successful in hiring and training suitable replacements without undue costs or delays. As a result, the loss of any of these key employees could cause significant disruptions in our business operations, which could materially adversely affect our results of operations. John C. Malone has significant voting power with respect to corporate matters considered by our shareholders. **Dr.** John C. Malone beneficially owns outstanding ~~ordinary~~ **common** shares of Liberty Global representing 30. 65 % of our aggregate voting power as of February 13, ~~2023~~ **2024**. By virtue of ~~Mr~~ **Dr**. Malone' s voting power in our company, as well as his position as Chairman of our board of directors, ~~Mr~~ **Dr**. Malone may have significant influence over the outcome of any corporate transaction or other matters submitted to our shareholders for approval. For example, under ~~English~~ **our bye-** ~~law~~ **laws** ~~and our articles of association~~, certain matters (including amendments to ~~the articles~~ **certain provisions** of ~~association~~ **the bye- laws**) require the approval of 75 % of the ~~shareholders who vote (in person or by proxy) on the relevant resolution~~ **outstanding Class A common shares and Class B common shares, voting together as a single class**, and other certain corporate transactions or matters may require the approval of at least 75 % of the outstanding **Class A common** shares ~~of each~~ **and Class B common shares, voting together as a single** class ~~of our ordinary shares~~. Because ~~Mr~~ **Dr**. Malone beneficially owns 30. 65 % of our aggregate voting power ~~and 67. 63 % of the outstanding Class B ordinary shares of Liberty Global~~, he has the ability to prevent the requisite approval threshold from being met even though the other shareholders may determine that such action or transaction is beneficial for the company. ~~Mr~~ **Dr**. Malone' s rights to vote or dispose of his equity interests in our company are not subject to any restrictions in favor of us other than as may be required by applicable law and ~~except for~~ customary transfer restrictions pursuant to equity award agreements. It may be difficult for a third- party to acquire us, even if doing so may be beneficial to our shareholders. Certain provisions of our **bye-** ~~articles of association and of English law~~ **laws** may discourage, delay ~~,~~ or prevent a change in control of our company that a shareholder may consider favorable. These provisions include the following: **I- 41** • authorizing a capital structure with multiple classes of ~~ordinary~~ **common** shares ~~;~~ **,** a Class B share class that entitles the holders to 10 votes per share ~~;~~ **,** a Class A share class that entitles the holders to one vote per share ~~;~~ and a Class C share class that, except as otherwise required by applicable law, entitles the holders to no voting rights; ~~I- 39 • authorizing the issuance of " blank check " shares (both ordinary and preference), which could be issued by our board of directors to increase the number of outstanding shares and thwart a takeover attempt;~~ • classifying our board of directors with staggered three- year terms, which may lengthen the time required to gain control of our board of directors ~~, although under English law, shareholders of our company can remove a director without cause by ordinary resolution~~; • prohibiting shareholder action by written resolution, thereby requiring all shareholder actions to be taken at a meeting of the shareholders; • ~~requiring the approval of 75 % in value of the shareholders (or class of shareholders) and / or English court approval for certain statutory mergers or schemes of arrangements; and •~~ establishing advance notice requirements for nominations of **director** candidates ~~for election to our board of directors~~ or for proposing matters that can be acted upon by shareholders at shareholder meetings **; • requiring supermajority shareholder approval with respect to certain extraordinary matters, such as certain mergers, amalgamations or consolidations of the company, or in the case of certain amendments to our bye- laws; and • the existence of authorized and unissued shares which would allow our board to issue shares to persons friendly to current management, thereby protecting the continuity of its management, or which could be used to dilute the share ownership of persons seeking to obtain control of us**. Change in control provisions in our incentive plans and related award agreements or in executive employment agreements may also discourage, delay or prevent a change in control of our company, even if such change of control would be in the best interests of our shareholders. The enforcement of civil liabilities against us may be more difficult. Because we are **now** a ~~public~~ **Bermuda exempted company** limited **by shares** ~~company incorporated under the laws of England and Wales~~, investors could experience more difficulty enforcing judgments obtained against us **, our directors or officers** in U. S. **or U. K.** courts **based on the civil liability provisions of English laws and the U. S. securities laws. We have been advised by our Bermuda counsel** ~~than~~ **that** ~~would currently be the~~ **there** ~~case~~ **is no treaty in force between the U. S. and Bermuda providing** for ~~U. S.~~ **the reciprocal recognition and enforcement of** judgments ~~obtained against~~ **in civil and commercial matters. As a result, whether** a U. S. **judgment would be enforceable in Bermuda against the** company **or its directors and officers depends on whether the U**. ~~It~~ **S. court that entered the judgment is recognized by a Bermuda court as having jurisdiction over the company or its**

directors and officers, as determined by reference to Bermuda conflict of law rules. In addition, and irrespective of jurisdictional issues, Bermudan courts will not enforce a U. S. federal securities law that is either penal or contrary to Bermuda public policy. We have been advised that an action brought pursuant to a public or penal law, the purpose of which is the enforcement of a sanction, power or right at the instance of the state in its sovereign capacity, is unlikely to be entertained by a Bermuda court. Certain remedies available under the laws of U. S. jurisdictions, including certain remedies under U. S. federal securities laws, may ~~also~~ **not** be ~~more difficult~~ **available under Bermudan law or enforceable in a Bermuda court, as they are likely to be contrary to Bermuda public policy. Further, it may not be possible to pursue direct claims in Bermuda against the company or its directors and officers for alleged violations of U. S. federal securities laws because these laws are unlikely to have extraterritorial effect and do not have the force of law in Bermuda. A Bermuda court may, however, impose civil liability on us or our directors and officers if the facts alleged and proved in the Bermudan proceedings constitute or give rise to a cause of action under the applicable governing law, not being a foreign public, penal or revenue law. Our bye- laws generally restrict shareholders from bringing legal action against our officers and directors. Our bye- laws contain a general waiver by shareholders for any claim or right of action a shareholder might have** (**whether individually** or ~~impossible~~ **by or in the right of the company**) ~~to bring some types~~ **against any director or officer** of **the company arising from any action or inaction by such director or officer in the performance of their duties for Liberty Global or any of Liberty Global' s direct or indirect subsidiaries (but excluding any matter involving fraud or dishonesty). Consequently, this waiver limits the right of shareholders to assert** claims against ~~us~~ **our officers and directors unless the act or failure to act involves fraud or dishonesty. There are potential regulatory limitations on the ownership and transfer of our shares if the our shares are delisted from Nasdaq. Our shares may be offered or sold** in ~~courts sitting~~ **Bermuda only** in ~~England than~~ **compliance with the provisions of the Bermuda Companies Act and the Investment Business Act 2003 of Bermuda, which regulates the sale of securities in Bermuda. In addition, the Bermuda Monetary Authority (BMA) must approve all issues and transfers of shares of a Bermuda exempted company limited by shares. However, the BMA has, pursuant to** ~~it~~ **its statement of June 1, 2005, given its general permission under the Exchange Control Act 1972 and related regulations for the issue and free transfer of our shares to and among persons who are non- residents of Bermuda for exchange control purposes as long as any class of our shares are listed on an appointed stock exchange, which includes Nasdaq. This general permission** would **cease to apply if none of our shares were to** be **listed on Nasdaq** ~~to bring similar claims against a U. S. company in a U. S. court. In particular, English law significantly limits the circumstances under which shareholders of English companies may bring derivative actions. Under English law generally, only the company can be the proper plaintiff in proceedings in respect of wrongful acts committed against us. Our articles of association provide for~~ - **or another appointed stock exchange** ~~the exclusive jurisdiction of the English courts for shareholder lawsuits against us or our directors~~ . **I- 42** We are exposed to the risks arising from widespread epidemic diseases in the countries in which we operate, such as the outbreak of COVID- 19, which could have a material adverse impact on our business, financial condition and results of operations. The COVID- 19 pandemic and the emergency measures imposed by governments worldwide, including travel limitations, limits on social activity and the shutdown of non- essential businesses have adversely impacted the global economy, disrupted global supply chains and created significant volatility and disruption of financial markets. While it is not currently possible to estimate the duration and severity of the adverse economic impact resulting from the preventative measures taken to contain or mitigate the spread of COVID- 19, a continued period of global economic disruption may continue to have a material adverse impact on our business, financial condition and results of operations in future periods. We may also be adversely impacted by any government mandated regulations on our business that could be implemented in response to the COVID- 19 pandemic **or other pandemics or epidemics** . In addition, countries may seek new or increased revenue sources due to fiscal deficits that resulted from measures taken to mitigate the adverse economic impacts of COVID- 19, such as, among other things, imposing new taxes on the products and services we provide. We are currently unable to predict the extent of any of these potential adverse effects **as they relate to the COVID- 19 pandemic or any future pandemics or epidemics** . Geopolitical conflicts, energy shortages and other adverse incidents beyond our control could adversely affect our revenue and results of operations. Political unrest and global conflicts like the ongoing conflict between Russia and Ukraine **and the Israeli- Palestinian conflict** have disrupted, and in the future may further continue to disrupt, global supply chains and heighten volatility and disruption of global financial markets. While we do not have direct operations within ~~Russia or Ukraine,~~ the conflict **areas, the conflicts** involving these nations has heightened the disruption to our supply chain, ~~triggered~~ **contributing to** inflation in our labor and energy costs and may increase our risk of cyberattacks, which could result in significant losses and damage and could damage our reputation with customers and suppliers if their confidential information is compromised. The impact of these global events on our longer- term operational and financial performance will depend on future developments, our and governmental responses to inflation ~~,~~ and the duration and severity of ~~the~~ **these** ~~conflict~~ **conflicts** ~~in Ukraine~~ . Any terrorist attacks or incidents prompted by political unrest, particularly in markets that we serve, and the national and global military, diplomatic and financial response to such attacks or other threats, also may adversely affect our revenue and results of operations.