Industry Top Trends 2022

Telecommunications

Telcos Are On The Hunt For Better Earnings And Returns On Investments

This report does not constitute a rating action

January 25, 2022

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What's changed?

Demand for high-speed broadband materializes, but without systematic monetization. Everywhere, customers are upgrading their fixed broadband plan, but benefits of these upgrades have been unequal from one region to another.

Regulatory bodies increasingly supporting infrastructure rollout. High-speed connectivity showed its importance during the pandemic, and we see regulators and governments increasingly supporting network rollouts and upgrades.

M&A appetite has increased in recent months. This has been mainly fueled by the monetization of tower and fiber assets, the expansion of the digital/tech segment, and the reorganization of media businesses.

What are the key assumptions for 2022?

Modestly rising revenue and earnings. We forecast modest revenue and earnings growth in 2022, driven by the gradual take-up of higher priced broadband and mobile plans, improving roaming revenue, and handset upgrades.

Elevated capital expenditure (capex) will support fiber rollout and 5G-related spending. We expect capex for the sector will remain high in 2022.

Telco deleveraging is taking time. High investments to support fiber and 5G rollout, IT spending, and modest revenues and earnings growth preclude a significant and sustained improvement in the industry's leverage.

What are the key risks around the baseline?

Delivering adequate returns remain a key risk. Competition, service commoditization, and pro-consumer regulation could preclude an adequate return on large investments. However, we see potential for more supportive policy, especially in the U.S. and Europe.

Fixed-broadband drives short-term modest revenue and earnings improvement, but substantial 5G-led growth remains elusive. Demand for fast fixed broadband services remains high, with customers increasingly upgrading their connections. 5G use cases are still nascent, in our view, and large revenue opportunities are likely a few years away.

Supply chain disruptions and cost input inflation could hurt margins and free cash flow. So far, the impact has been somewhat muted for telecom and cable providers.

Ratings trends and outlook

Global Telecommunications

Chart 1

Ratings distribution

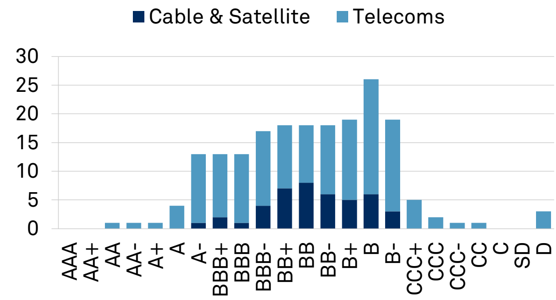


Chart 2

Ratings distribution by region

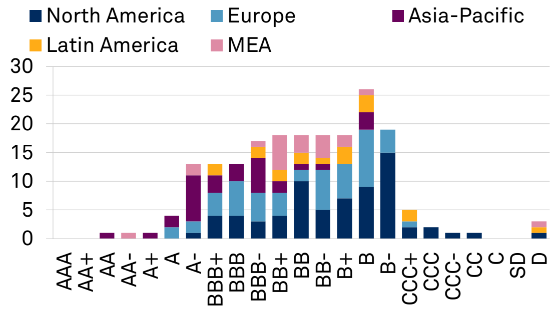


Chart 3

Ratings outlooks

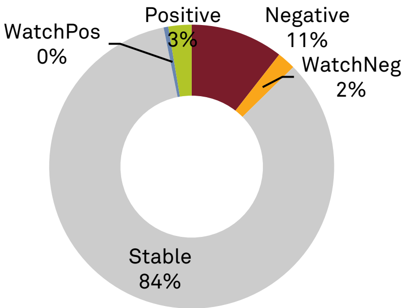


Chart 4

Ratings outlooks by region

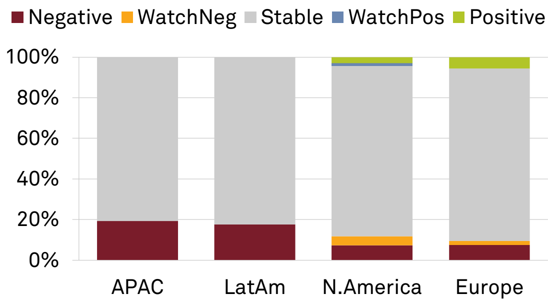


Chart 5

Ratings outlook net bias

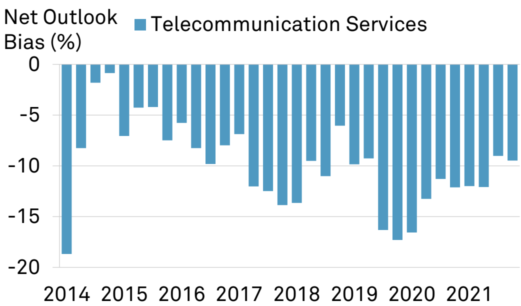
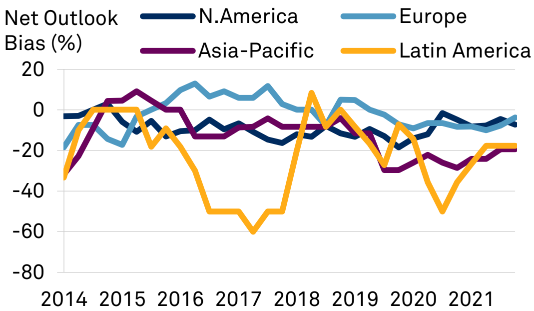


Chart 6

Ratings net outlook bias by region



Source: S&P Global Ratings. Ratings data measured at quarter end.

Global Telecoms

Ratings trends and outlook

Ratings in the telecommunications sector have outperformed our expectations when the pandemic started, and in recent months, the sector's credit profile has been relatively stable, with a slightly improving trend. Overall, 84% of telecom issuers have a stable outlook at year-end 2021, up from 79% in the previous year, and the proportion of companies with negative outlooks or CreditWatch placements improved to 13%, from 17% a year ago. In addition, the number of upgrades outpaced downgrades, led by positive rating actions in the U.S. Our net outlook bias improved to 9.4% negative at year-end 2021 compared with 12.1% negative a year earlier after we revised our outlooks on several issuers to stable from negative bias due to stronger-than-expected operating performance, or from positive outlook due to more aggressive financial policy or delayed integration of acquired companies. Also in this period, a few names having a negative outlook on ratings were eventually downgraded and then kept a stable outlook, which also contributed to the improvement of the rating bias. For 2022, we expect still-high leverage due to heavy investments in 5G and fiber densification, which could weigh on the industry's credit quality, especially if financial policies become more supportive of shareholder returns. Still, potential for industry consolidation and the adoption of digital processes coupled with growth from new services could be positive to credit. Regionally, credit quality is stabilizing everywhere.

Investment-grade issuers should fare well during 2022, because of generally stronger business attributes and greater financial flexibility. This comes despite having a relatively higher share of negative outlooks or CreditWatch listings than the overall portfolio, as of September 2021. In most cases, tight leverage headroom, a more aggressive financial policy, or a rating cap from the sovereign or parent company explained the higher negative bias. More than 85% of the speculative-grade portfolio has a stable outlook. However, SG issuers, particularly those with limited scale and differentiation, or companies indexed to legacy offerings or high investment needs amid weak balance sheets remain most vulnerable to negative actions in the coming year.

Main assumptions about 2022 and beyond

1. Growth will be uneven across regions

Emerging markets to benefit from stronger demand fundamentals, while growth in the U.S. and Europe will be curtailed by a highly competitive environment, as well as fading effects from economic reopening and stimulus checks.

2. Race for high-speed communications continues to escalate

We expect capex intensity for the sector will remain high in 2022, with telcos investing in next-generation networks, including fiber-to-the-home (FTTH) coverage expansion and 5G rollout, and scaling up IT and digitalization spending. Cablecos' capex intensity should be relatively stable, with U.S. cablecos increasing upstream speeds and capacity and European cablecos considering expanding footprints or upgrading to fiber technology.

3. Sizable funding needs for capex will pressure leverage metrics

High investments to support fiber and 5G rollout, IT spending, and spectrum auctions preclude a significant and sustained improvement in the industry's leverage.

Growth will be uneven across regions. The variance in growth rates we see features faster growth in Asia and Latin America, and low-single-digit growth in the U.S and Europe. In the U.S., we expect positive-but-slowing wireless service revenue growth upon increasing competition from the incumbent cable providers via their Mobile Virtual Network Operator agreements, and the fading benefits of economic reopening and stimulus checks introduced in 2021 that supported handset upgrades and migration toward higher-tiered rate data plans. Secular industry declines from legacy products, coupled with significant competition from cable broadband and lost subsidy revenue, will likely constrain wireline topline growth and profitability, and we expect a high-single-digit revenue decline in 2022. Cable subscriber growth should moderate from unsustainably high levels in the past two years, while competition from expanding FTTH will likely limit their market share gains. In Europe, we expect revenue growth will be modest, although up from 2021 levels as roaming and equipment sales continue to recover and because of the gradual benefit of accretive fixed-line broadband upgrades. Most telecom operators in APAC will maintain steady operating performance in 2022, supported by continued expansion in demand for data and customers increasingly selecting higher-priced data plans for their wireless and fixed broadband connections and despite delayed rebound in roaming revenues. In Latin America, growth factors will be higher access to postpaid plans and a better product mix with greater participation of mobile internet due to rising demand for data and 4G plans. Yet the growth trajectory could be curtailed by intense competition, where some operators still have a strong focus on protecting their market shares through more affordable offerings and highly competitive bundled packages.

The race for high-speed communications continues to escalate. While major fiber deployments will likely tail off within the next few years as household coverage increases, we expect 5G densification and investments in information and communication technologies (ICT) will limit a substantial drop in spending. The 5G spectrum auctions are finishing in North America--resulting in massive spending in the C-band and 3.5 GHz spectrum auctions--and Europe, and are ongoing in Latin America. Spectrum auctions affect telcos' cash flow in the near term though scheduled payments will continue to weigh on cash flow in the medium term. 5G is characterized by an extended buildout timeframe that will help moderate swings in capex intensity, but investments will be prolonged with no sharp curtailment as demonstrated by the most advanced Asian markets. High capex also somewhat reflects investment in ICT, including accrued digitalization and cloud-based services, as telcos look to diversify their offering from traditional voice and connectivity services to more integrated and valued-added digital services.

Sizable funding needs for capex will pressure leverage metrics. High capex and shareholder payouts will likely constrain discretionary free cash flow available for debt repayment in 2022, and largely offset modest revenue and earnings growth in 2022 for telecom providers. We believe telcos worldwide will continue considering alternate means to fund their capex, including network and spectrum sharing (some of which are arguably regulatory driven); the sale of noncore legacy, or lower-scaled telecom operations and media assets; and monetization of tower and fiber networks, providing some financial flexibility depending on the multiple and use of proceeds. Furthermore, government support to bridge the digital divide and support rural and remote broadband connectivity could allow servicing these areas to be more economically tenable for some providers. While we have a positive view of efforts to review strategy, capital allocation, and asset mix to mitigate rising financial risks and improve financial flexibility, tight leverage headroom will remain a key rating risk because the net benefit from such actions is limited from a credit perspective.

In 2020, many telcos revisited their shareholder remuneration policy in light of pandemic uncertainties. We expect 2021's normalization of shareholder return will continue in 2022, potentially exacerbated by pressure to increase shareholder return policies.

Credit metrics and financial policy

In 2022, we expect limited credit metric improvements and see risk for more shareholder-friendly financial policies.

Modest revenue growth and limited margin expansion, combined with incremental debt incurred to fund spectrum purchases, and spending to expand fiber and 5G networks will likely keep leverage elevated in 2022. Still, we expect leverage and liquidity management will remain key considerations for telcos as they continue to look for financial flexibility by, for instance, increasingly monetizing their assets or capturing growth opportunities through diversifying their ICT offering.

With the pandemic, prudent financial management--including lower return to shareholders and script dividends--was largely accepted as telcos were navigating through a recessionary environment with relatively tight leverage headroom and still elevated capex to maintain and extend their networks that proved to be key for the modern economy. We now believe that slow growth and weak stock prices could push many telcos to return more money to their shareholders, hampering any sharp improvement in the industry's leverage profile.

Key risks or opportunities around the baseline

1. Delivering adequate returns remain a key risk, although we see signs of more supportive regulation

Competition, service commoditization, and (so far) pro-consumer regulatory policies could preclude an adequate return on large investments. However, we see potential for more supportive regulation and policy, especially in the U.S. and Europe, because the pandemic has highlighted the value and strategic importance of well-invested networks.

2. Fixed-broadband drives short-term modest revenue and earnings improvement, but substantial 5G-led growth remains elusive

Demand for fast fixed broadband services remains high, with customers increasingly upgrading their connections. While potentially positive for operators, the realization of "more-for-more" revenue upside will vary, with more competitive markets unlikely to see material benefits. 5G use cases are in our view still nascent, and large revenue opportunities are likely a few years away.

3. Supply chain disruptions and cost input inflation could hurt margins and free cash flow

To date, the impact has been somewhat muted for telecom and cable providers. However, margins pressure remains a risk, mainly in the most competitive markets, and especially those without regular contractual pass-through mechanisms.

Delivering adequate returns remain a key risk, although we see signs of more supportive regulation. The industry continues to struggle improving its return on capital. Pro-consumer regulatory policies have helped shape the competitive dynamics in most jurisdictions over the past decade and have been a factor in our downgrades in recent years. Lower wholesale tariffs, network unbundling requirements, spectrum set-asides and caps, other support for new entrants to spur competition, and a limited appetite for consolidation have hindered incumbents from achieving greater returns on their investments. Indeed, the low return on capital across rated telcos has generally been declining, to less than 6% in 2021 from a bit more than 7% in 2011.

However, we believe pandemic-related lessons have the potential to slightly shift policies, to promote sustained network investments that support network resilience and greater broadband access. This in turn could foster a more profitable and credit supportive environment. In Europe, countries like Spain and the U.K. have revised their wholesale fixed broadband rules mainly to promote fiber investments. Both the U.S. Congress and the European Commission have voted funds, of $65 billion and €34 billion, respectively, to support broadband investments and consumer spending.

Finally, we believe regulatory objections to in-market consolidation could ease somewhat and lead to a more sustainable competitive environment. We have seen a few cases of in-market consolidation in some European and Asian countries since the pandemic's start. At the same time, we are cautious on potential benefits and will need to see a confirmation of this still-nascent trend. We do not believe a complete regulatory volte-face is probable as customer protection remains under the radar of governments and regulatory bodies. Regulatory direction is challenging to predict, and sector-wide consolidation could prove aspirational.

Fixed-broadband drives short-term modest revenue and earnings improvement, but substantial 5G-led growth remains elusive. Demand for fast fixed broadband services remains high, because the pandemic highlighted the importance of broadband to the modern economy. We expect adoption and usage of fixed-broadband services to remain strong as businesses embrace the benefits of remote work, and as consumer consumption of streaming services, e-commerce, e-learning, gaming, and social video use increases. Monetization of fixed broadband upgrades has been unequal between regions, meaning higher revenue growth in the U.S. than Europe or Latin America. We also believe that growth prospects will largely depend on the competitive and regulatory environment in a given market.

5G represents another area of long-term growth for the industry. We believe consumer 5G adoption will continue to gain momentum in 2022 as speeds and coverage improve, supported by recent spectrum auctions and network investments. Monetization is uneven between regions, with early adopters such as some markets in Asia-Pacific seeing a lift in average revenue per unit (ARPU) from 5G due to continued and steady upselling to larger and faster data speed plans, while gains are more muted in other regions like Europe. We believe carriers will need to be supported by industry and institutional participation in developing commercially viable use cases. We expect monetizable use cases to exploit 5G will take time to evolve and require additional investment, but could ultimately provide a new, and potentially substantial, source of sustainable cash flow. However, we forecast little revenue benefit until at least the latter half of the decade.

Supply chain disruptions and cost input inflation could hurt margins and free cash flow. High energy prices are a key risk, particularly in markets like Europe where spot prices have more than doubled. Margin pressure may become more prevalent in 2022, especially when contracts reset or hedges roll off. The risk will be particularly pronounced in more competitive markets and when there are no inflation-linked tariffs as higher prices could be difficult to pass on. Supply chain constraints will also remain under scrutiny in 2022 as they could affect fiber and 5G rollout, and pressure telcos' profitability, especially when combined with labor shortages. We believe long-lead time contracts and capacity to adjust capex plans could partly offset pressure from supply chain constraints, although persistent supply chain issues and wage inflation could lead to lower margins than we forecast.

North America

Ratings trends and outlook

In the U.S., upgrades outpaced downgrades in 2021 for the first time since 2014. While U.S. telecom and cable issuers were not hurt as much by the pandemic and recession as most corporate sectors, the rebound was also limited. Several factors drove upgrades, including better industry dynamics, especially for cable providers; stronger business conditions; and transactions that enabled debt repayment and leverage improvement. About 11% of telecom and cable issuers we rate either have negative rating outlooks or are on CreditWatch with negative implications, compared with 20% at year-end 2020 and 30% at year-end 2019.

In 2022, we expect rating trends among U.S. cable providers to be relatively stable despite the potential for moderating broadband subscriber growth and ongoing pay-TV customer declines. Although we expect high capital spending and aggressive competition could hurt credit quality for U.S. telcos, we believe that the current ratings already support these risks. Low interest rates and healthy capital markets could enable even low-rated issuers to refinance upcoming debt maturities, but the potential for rising interest rates because of the repricing of risk, inflation, and global supply chain challenges could pressure ratings.

Main assumptions about 2022 and beyond

1. Slowing customer growth in wireless and cable

We expect wireless competition to increase in 2022, resulting in slowing postpaid subscriber and service revenue growth. Similarly, fiber deployments could limit market share gains for cable, although there are still opportunities in non-fiber rural markets. However, migrations to higher-tiered rate plans in both wireless and cable will extend revenue growth.

2. Higher capex for telcos, although stable for cable

We expect a sharp increase in telco capital spending in 2022 because of ongoing FTTH deployments and the buildout of mid-band spectrum licenses.

3. FTTH development will pressure free cash flow and credit metrics for wireline operators

Recapitalizations and noncore asset sales have provided wireline operators greater financial flexibility to invest in fiber and compete with the incumbent cable providers. However, we expect lower free cash flow and higher leverage over the next couple of years.

Customer growth in wireless and cable slows. Rebounding from pandemic-driven weak operating performance in 2020, U.S. wireless operators posted their strongest subscriber gains and service revenue growth in several years during 2021. Conversely, U.S. cable providers experienced slowing broadband subscriber growth during the year as pandemic-related restrictions confined people to their homes in 2020, driving up the need for Internet connectivity.

We expect U.S. wireless service revenue to have increased 3.5%-4.0% in 2021, and slowing to around 2% in 2022 (see chart 7). Our forecast is based on the following assumptions:

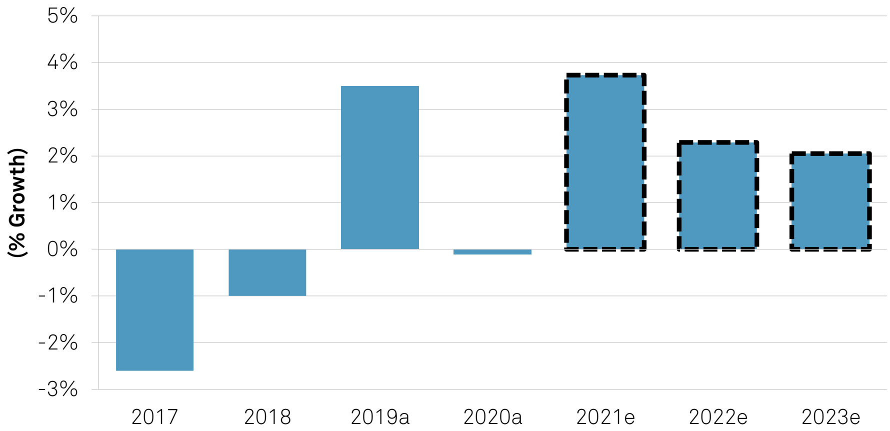
- The end of pandemic lockdowns helped increase store traffic and boost subscriber growth in 2021, which won't repeat in 2022.
- Stimulus payments allowed many consumers to upgrade handsets and migrate to higher-tier rate plans. The benefits of these will undoubtedly fade in 2022.
- Competition from cable is increasing, and industry conditions are mature. It is difficult to fathom that mobile phone subscribers will continue outpacing population growth and cable has taken about one-quarter of postpaid phone net subscriber additions each quarter over the past year.

Against the backdrop of slowing subscriber growth, we believe there are opportunities for the carriers as consumers upgrade to 5G handsets and migrate to higher-tiered rate plans. For example, Verizon stated that only 30% of its customer base was on premium unlimited plans but that two-thirds of new accounts were signing up for these, implying this migration will contribute to average revenue per account (ARPA) growth.

In Canada, we expect wireless service revenue to show low-mid single digit growth. We assume that roaming revenue to return to near pre-pandemic levels in second-half 2022 (only 50% in third-quarter 2021) and consumers will continue to migrate to higher-priced unlimited plans, offsetting slowdown in overage revenue. We also believe that lower wireless penetration (compared to the U.S. and Europe) and increased immigration in 2022 will continue to support wireless revenue. As Telus and BCE expand their FTTH and fixed wireless access to a large part of their footprint, we also expect growth in their wireline revenue in low-single digits, supported by the bundling opportunities.

Chart 7

U.S. Wireless Annual Service Revenue Growth Rate

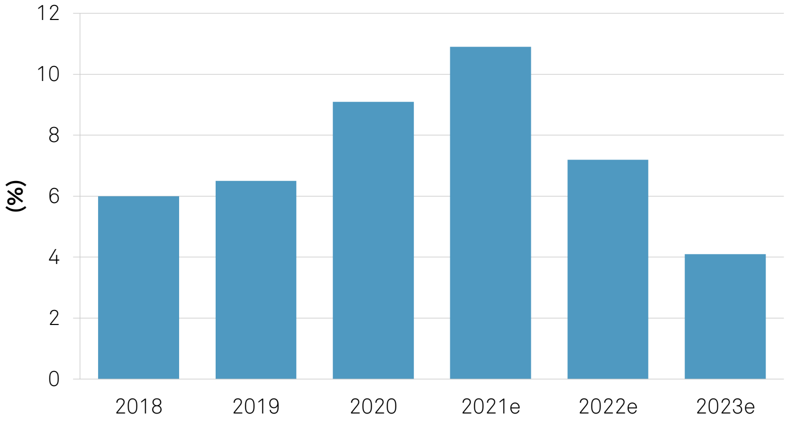


a—Actual. e—Estimate. Source: S&P Global Ratings.

We expect cable internet subscriber growth to moderate from unsustainably high levels over the past two years. We also expect that incremental competition from FTTH expansion and fixed wireless service offerings will gradually limit cable market share gains. However, assuming successful fiber deployments over the next five years, we project that just under 50% of U.S. households would still not have a service capable of delivering comparable internet speeds with cable (from about 70% today). We believe consumers in these rural markets represent a growth opportunity, particularly considering that cable has historically been underpenetrated in these markets due to a demographic that skews lower-income with lower-than-average data requirements. We believe a fundamental shift in consumer behavior toward faster, more reliable internet connections positions cable operators well in these markets. Therefore, we expect low-single-digit percent subscriber growth, and 3%-5% ARPU growth (as customers move to faster speed tiers) to support mid-single-digit EBITDA growth for the next two-to-three years (see chart 8).

Chart 8

Cable Industry EBITDA Growth



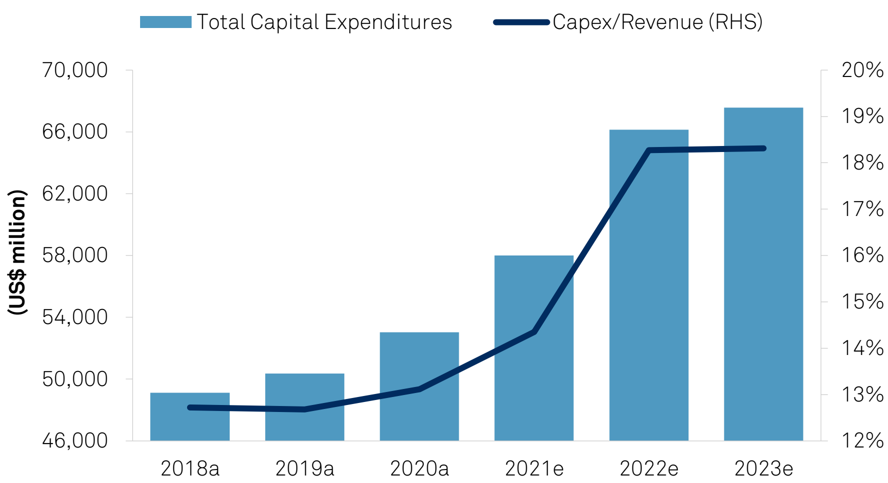
e—Estimate. Source: S&P Global Ratings.

Telcos have more capex, which is stable for cable. We expect U.S. telco capital spending to increase to 13%-15% in 2022 as carriers deploy spectrum licenses acquired in recent auctions and for FTTH builds (see chart 9). More notably, we expect increased spending to remain elevated over the next couple of years following the massive spending in the C-band auction as well as Auction 110, which was recently completed. We base our forecast on the following factors:

- Verizon plans to spend an incremental $10 billion in capex to build out the C-band licenses from 2021-2023.
- AT&T plans to increase its capital spending by $6 billion to $24 billion in 2022, which will include FTTH deployments and spectrum builds.
- T-Mobile is continuing to build out its 2.5 GHz licenses acquired from Sprint.
- In addition to AT&T, U.S. wireline operators are all in the process of upgrading their networks with FTTH across their footprints.

Chart 9

U.S. Telco Capital Expenditures



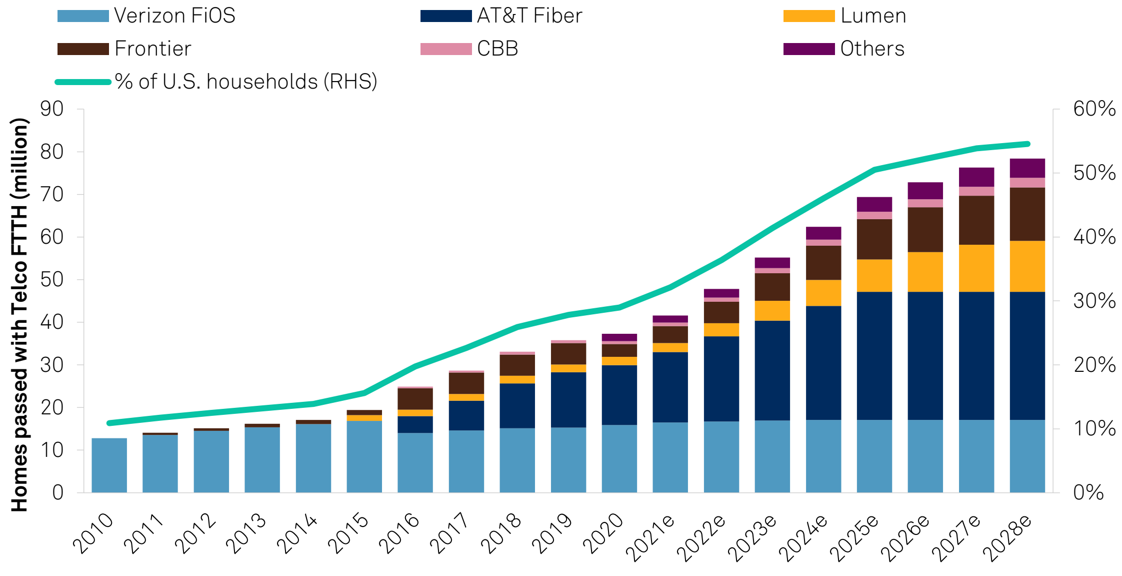
a—Actual. e—Estimate. Source: S&P Global Ratings.

In contrast, cable industry capital intensity is likely to be stable, given its ability to incrementally scale networks affordably. We believe that cable's most significant network investment over the next few years will be to increase upstream speeds and capacity. This can be accomplished by increasing the amount of spectrum dedicated to upstream, which requires changes to the active portions of the coax network (nodes and amplifiers) and potentially the passive portions of the network (splitters and taps). This mid-split or high-split activity, coupled with footprint edge-outs, is likely to increase costs moderately in the near term, offset by lower customer premise equipment costs as video customers decline.

FTTH development will pressure free cash flow and credit metrics for wireline operators. Recapitalizations and noncore asset sales have given wireline operators greater financial flexibility to invest in FTTH broadband service to better compete with cable. And, if properly executed, investments in fiber should not only help stem the loss of broadband subscribers to cable, but also take share and grow ARPU. We estimate that U.S. telco FTTH coverage will be around 35% in 2022, up from 31% in 2021 (see chart 10). We expect FTTH to cover 50%-55% of U.S. households by 2028.

Chart 10

Telco FTTH Penetration In The U.S.



e—Estimate. Source: S&P Global Ratings.

Nevertheless, secular industry declines from legacy products--coupled with significant competition from cable broadband and lost CAF II subsidy revenue--could constrain top-line growth and profitability over the next several years. We forecast total U.S. wireline revenue will decline 5%-7% in 2022 due to lower revenue from legacy products, coupled with lost CAF II subsidy revenue. However, we expect topline declines to moderate in 2023 to 2%-4% as investments in fiber start to yield improving broadband trends. Still, solid execution during the buildout phase is critical and will ultimately determine if telcos can reduce leverage.

At the same time, high capex and costs associated with FTTH builds will likely hurt telcos' credit quality in the near term, although our ratings already largely reflect this. For 2022 and 2023, we expect wireline capex to increase to 10%-15% annually, reflecting the accelerated investments in fiber. While credit metrics are likely to deteriorate in the near term, the long-term benefits of FTTH deployments can be significant.

Similarly, Canadian telcos BCE and Telus accelerated their 2021-2022 capex plans by about C$1.5 billion each to support their FTTH expansion. In addition, the significant spending on the 3.5 GHz spectrum auction in 2021, and the expectation of similar spending on C-band spectrum in 2023, will continue to pressure companies’ cash flow.

However, with a majority of the FTTH expansion behind them in 2023, we expect pressure on cash flow measures to ameliorate.

Credit metrics and financial policy

Slowing subscriber and wireless service revenue growth, limited margin expansion, and incremental debt incurred to fund spectrum purchases and capital spending will likely keep leverage elevated in 2022 for U.S. mobile providers. And, the ability to monetize 5G investments will be challenging as most internet-of-things (IoT) and enterprise revenue opportunities are likely several years away, in our view. These factors are likely to contribute to limited credit metric improvement over the early phase of the 5G investment cycle following the spectrum purchased in the C-band auction, which pushed up leverage for all carriers. At the same time, slowing growth and weaker stock prices might lead large telcos to return more money to shareholders.

In U.S. wireline, secular industry declines from legacy products--coupled with lost CAF II subsidy revenue--could constrain topline growth over the next several years. At the same time, high capex and costs associated with FTTH builds will likely hurt telcos' credit quality in the near term, although our ratings already largely reflect this expectation. However, the long-term benefits of FTTH deployments can be significant. In addition to potential share gains, offering faster internet speeds should translate into higher ARPU that bolsters top-line performance. Solid execution during the buildout phase is critical and will ultimately determine if telcos can reduce leverage.

In U.S. cable, we expect EBITDA growth to moderate to 6%-8% in 2022 from above 10% in 2021 as competition gradually intensifies. This, coupled with relatively stable capital expenditures will likely translate to free operating cash flow growth of 6%-8% in 2022, which provides greater financial flexibility for most operators to manage their credit profiles. Therefore, cable operator’s financial leverage improvement hinges largely on capital allocation decisions. We do not expect additional consolidation in the sector, as midsize players Cox Communications and Altice USA are unlikely sellers although management teams may pursue share buybacks in response to declining stock prices experienced in recent months.

Key risks or opportunities around the baseline

1. The new infrastructure bill could present opportunities for U.S. cable providers to extend broadband growth, but the regulatory environment is still uncertain

Congress recently passed a massive infrastructure bill, which includes an unprecedented $65 billion to increase in-home broadband and affordability.

2. There are limited revenue opportunities and low investment returns from 5G mobile services

Massive spending in recent auctions have pushed up leverage, but revenue opportunities from 5G technology appear limited in the near term.

3. Ongoing supply chain disruptions and cost input inflation could hurt margins and free cash flow

To date, the impact of global supply chain challenges and cost input inflation have been somewhat muted for telecom and cable providers. However, we believe supply chain disruptions and inflation could yet pressure margins.

The new infrastructure bill could present opportunities for U.S. cable providers to extend broadband growth, but the regulatory environment is still uncertain. We believe cable operators are well positioned to benefit from funds that could come primarily in the form of subsidized buildouts into rural markets ($40 billion) and consumer subsidies ($14 billion). We believe cable operators have an opportunity to expand their footprint into markets that could not justify adequate stand-alone returns because of low population density or elevated construction costs. Absent more precise broadband maps (which the Federal Communications Commission [FCC] is updating), the exact number of homes that do not have access to high-speed internet is difficult to determine, but we estimate it is 12 million-15 million, or about 10% of the U.S. total.

This provides potential for cable operators to continue low-single-digit subscriber growth rates three-to-five years from now if they receive subsidies. We believe incumbent cable operators are well positioned to receive buildout subsidies compared with new entrants because extending their plant is more cost efficient. Money could begin to be allocated late in 2022, with service required within four years of the grant to the broadband provider. However, we recognize the process of data collection, broadband mapping, planning, and local coordination could be complicated and time-consuming.

Separately, the Democrat-controlled FCC is likely to reinstate Title II over the next year. We believe this will be used a way to enforce open internet concepts of no blocking, no throttling, and no paid-prioritization of internet traffic. However, it opens the door to pricing regulation, which could happen longer-term in some markets if prices and penetration continue to rise. However, we do not expect near-term price regulation considering that FCC Chairwoman Jessica Rosenworcel recently testified she does not intend to do so.

There are limited revenue opportunities and low investment returns from 5G mobile services. After spending $95 billion for spectrum licenses in the C-band auction in March 2021, the wireless carriers followed up with another $22.5 billion spent in Auction 110, highlighting the robust demand for midband spectrum. Spending in the C-band auction had a material impact on the balance sheets of wireless carriers. For Verizon, which spent $53 billion in the auction, adjusted debt to EBITDA rose to around 3.2x from 2.5x, prompting S&P Global Ratings to revise its outlook to stable from positive while affirming its 'BBB+' issuer-credit rating on the company. Similarly, AT&T spent $27 billion in the auction, which pushed leverage to over 4.0x, modestly above our 3.75x downgrade threshold, from around 3.7x. However, the company announced in May 2021 that it would merge its media business WarnerMedia LLC with Discovery, for which it will receive about $41.5 billion in proceeds. This transaction proved to be critical as it will enable AT&T to reduce leverage and invest in its telecommunication business.

In Auction 110, AT&T spent $9.1 billion for 40 MHz of nationwide spectrum, the maximum that any company could spend in the auction and in line with our expectation of $8 billion-$10 billion. Its acquisition of licenses in the auction also enabled it to close the mid-band spectrum gap with Verizon and T-Mobile. Dish was the second largest winner in the auction, acquiring 31 MHz of nationwide spectrum for $7.3 billion while T-Mobile only spent $2.9 billion for about 12 MHz of nationwide spectrum, somewhat lower than our expectation for $4 billion-$6 billion.

In Canada, spectrum licenses in the 3.5 GHz auction sold for about US$2.63 (C$3.28 equivalent) per MHz-PoP average for the big 3 operators; this exceeded all previous valuations and was much higher than we have seen in other jurisdictions. Healthy bidding from incumbent players was a major factor, although interest from smaller players, including new entrants, was also stronger than we anticipated. As a result, debt leverage for the telecom sector continues to be elevated.

At the same time, the mobile carriers need to build out this spectrum, which typically results in higher levels of capital spending and lower free cash flow. And, the wireless industry is mature with limited growth opportunities in the traditional retail market. The ability to monetize these investments will be challenging as IoT opportunities are likely several years away, in our view. Both Verizon and T-Mobile are looking at 5G fixed wireless service as a potential revenue driver. However, while they might take some share at the lower-end of the market, we do not believe fixed wireless will be a meaningful threat to cable or FTTH broadband service. The technology is largely unproven and there are inherent reliability issues with wireless connections, which could frustrate consumers.

Ongoing supply chain disruptions and cost input inflation could hurt margins and free cash flow. To date, the impact of global supply chain challenges and cost input inflation have been somewhat muted for U.S. telecom and cable providers, in contrast to many other corporate sectors. Still, there have been pockets of stress and there is heighted risk in 2022 that these pressures could hurt margins and free cash flow, in our view.

For data center operators, energy is the largest component of the cost structure after rent. Higher prices are not easy to pass along and can only be re-priced when a contract comes up for renewal. Nevertheless, hedging strategies and some pass-through provisions can limit the impact on margins, although we believe that the negative impact of rising energy prices might be more prevalent in 2022.

There is also some evidence that supply chain issues are affecting FTTH deployments. AT&T lowered its guidance for 2021 FTTH passings to 2.5 million in 2021 from 3.0 million, although most telcos are constructive on their ability to manage the supply chain. However, we believe there is increasing risk that material and labor shortages could delay FTTH builds while pressuring margins because of higher input costs in 2022.

Europe and The Middle East

Ratings trends and outlook

In Europe, 85% of the rated portfolio is on stable outlook (compared with 77% a year ago), but in 2021 downgrades outpaced upgrades with four companies downgraded and only one upgraded (Hellenic Telecommunications Organization S.A. to 'BBB', in May 2021, after we took a similar action on the sovereign). Several factors drove downgrades, including operating underperformance compared to our base case (TalkTalk Telecom Group Ltd. to 'B' in December 2021 and Telecom Italia to 'BB' in November 2021), as well as inorganic drivers, including a leveraged buy-out (TalkTalk Telecom Group to 'B+' in January 2021 on the acquisition by Tosca IOM) and M&A (Lorca Telecom Bidco S.A.U. to 'B' after acquiring Euskaltel). However, ratings pressure is stabilizing with the number of negative outlooks and CreditWatch placements moderating to 10% of our ratings at year-end 2021, versus 17% a year ago. Assuming continued economic recovery supports further, if modest, revenue growth, and slightly lower capex translate into minimal deleveraging from the peak reached in 2021, we expect relatively stable European telecom ratings in 2022.

In the Gulf Cooperation Council (GCC) region, telecom operators ratings were unaffected throughout the pandemic in 2020 and currently remain on stable outlook. We recently revised our outlook on Bahrain Telecommunications Co. BSC (B+/Stable/B) to stable from negative following a similar rating action on the sovereign rating of Bahrain.

Main assumptions about 2022 and beyond

1. Revenue will increase modestly in 2022

European operators have weathered the pandemic, benefiting from business and consumer reliance on critical infrastructure driven by increased virtualization. However, they have been unable to translate high data consumption into sharp revenue growth, and we expect only modest increases, averaging about 2% through 2022.

2. Capex intensity could start declining, but will remain high

We believe average capex intensity will remain elevated, at 20.5%-21% of revenue, but will start declining from the peak reached in 2021 (21.2%) when telcos were catching up on fiber and 5G spending that was somewhat delayed because of the pandemic. Fiber rollout and 5G spending will continue fueling investments requirements in 2022.

3. In relatively stagnant conditions, what are the sector levers?

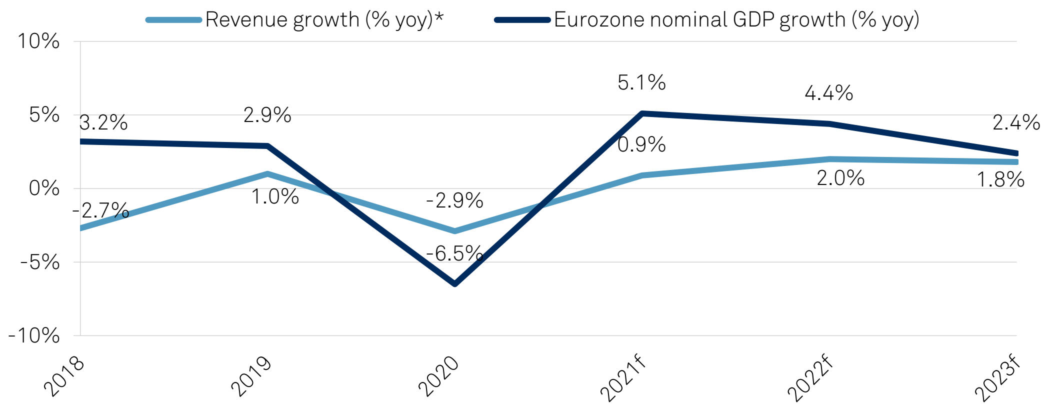
We think tower asset sales will continue and a growing number of operators will consider fixed-network sales. These transactions can strengthen balance sheets and provide financial flexibility, although proceeds and the deconsolidation of capex can be offset by our adjustments, limiting deleveraging prospects. 5G will shape operators' near-term investments strategy, while medium-to-long-term business use cases are still to be defined. Telcos are increasingly strengthening their digital offering as a way to diversify from more traditional voice and connectivity services and better monetize 5G-related use cases.

Revenue will increase modestly in 2022. European operators have weathered the pandemic headwinds, benefiting from business and consumer reliance on critical infrastructure driven by increased virtualization. Despite weaker equipment, roaming and business-to-business (B2B) performance in 2020, revenue declines were moderate at about 3% for European telcos and cable operators in 2020. The sector outperformed the eurozone nominal GDP contraction of 5.0%. While reflecting the relative resilience of the industry to economic shocks and robust demand for connectivity during the pandemic, from fixed broadband consumers with high data consumption in particular, the contraction nonetheless illustrated the difficulty of operators to translate high data consumption into revenue.

In 2021, with the economic recovery and ease of lockdowns and other restrictions, the sector should return to low-level growth. We expect the trend will continue in 2022 with modest-but-improving revenue growth of about 2.0% from about 1% in 2021 for both European telcos and cablecos (see chart 11). Continued recovery in low-margin equipment sales thanks to pent-up demand and newly released 5G devices, gradual letup of pressure on roaming revenue, lower level of promotions, and gradual benefit of accretive fixed line broadband upgrades should fuel the expected revenue growth.

Chart 11

Modest But Accelerating Revenue Growth For European Telcos And Cablecos In 2022



*Revenue growth based on local currency revenues. f—Forecast. Source: S&P Global Ratings.

Over the first nine months of 2021, GCC telecom operators demonstrated revenue growth in the range of 2%-8% capitalizing on their leading market positions domestically and internationally. Improving economic conditions in the region, along with population growth following the contraction in expat numbers in 2020 and additional upside from the pick-up in international travel (particularly for the United Arab Emirates [UAE]) will drive 2%-3% revenue growth in 2022-2023. We think that data, digital, fixed broadband and non-telecom services, as well as roaming to a smaller extent, will support revenue growth. We also expect that operators will sustain stable profitability supported by ongoing cost efficiencies, as well as continued focus on more profitable postpaid offers. Etisalat (AA-/Stable/A-1+) and Saudi Telecom Co. (STC) (A-/Stable/A-2) have consistently demonstrated above-average profitability (S&P Global Ratings-adjusted EBITDA margin above 40%), backed by highly profitable domestic operations, and international operations in the case of Etisalat. The operators we rate all offer nationwide 5G coverage in their respective domestic markets.

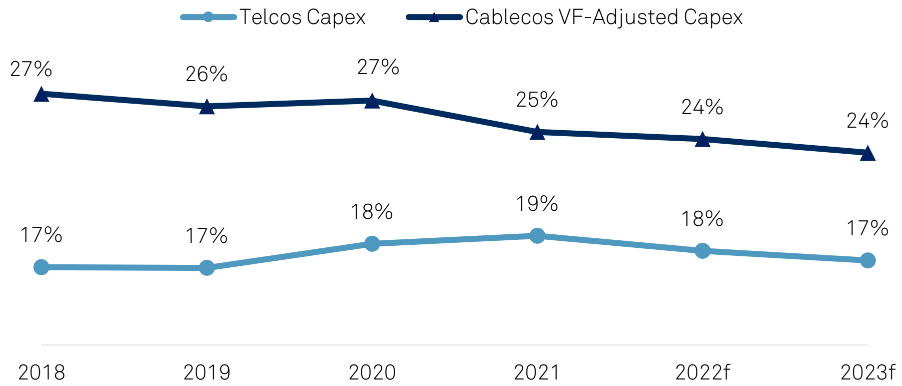
Capex intensity could start declining, but will remain high. Capex to sales is likely to remain at 20.5%-21.0% in 2022, down modestly from the peak of 21.0%-21.5% in 2021 due to accelerated fiber deployments as the pandemic drove investment in high-speed connectivity and a catch-up in 5G spending after COVID-19 disruptions in 2020 (see chart 12).

We expect the trend in fixed network upgrades will continue in 2022, bolstered by demand from customers and governments' plans to prioritize high-speed broadband development. This should be most pronounced in markets where fiber coverage is low, such as Germany (about 22% of households) or the U.K. (about 25%). However, we forecast a slight decline in capex intensity because some European countries are more advanced in terms of fiber coverage--for instance, Spain (about 90%) or France (about 79%). While cablecos' network upgrades (including DOCSIS 3.1) approach completion, some of them are considering expanding footprints or upgrading to fiber technology, in contrast with many of their U.S. peers, which could maintain elevated capex intensity over the outlook period.

For mobile, while initial 5G spectrum auctions are largely completed in Europe, most deployment has been in the low and mid bands. With 5G handset penetration and subscriptions growing but still a minority of the installed base, and with higher frequency millimeter-wave rollouts requiring further network densification, we expect 5G spending will be relatively gradual and more long-lived compared with the rapid 4G rollout a decade ago. This, combined with ongoing fixed network upgrades, will likely keep capex intensity in the mid-to-upper-teen percent of revenue beyond 2022.

Chart 12

European Telecoms Average Capex (% Of Sales)



f—Forecast. Source: S&P Global Ratings.

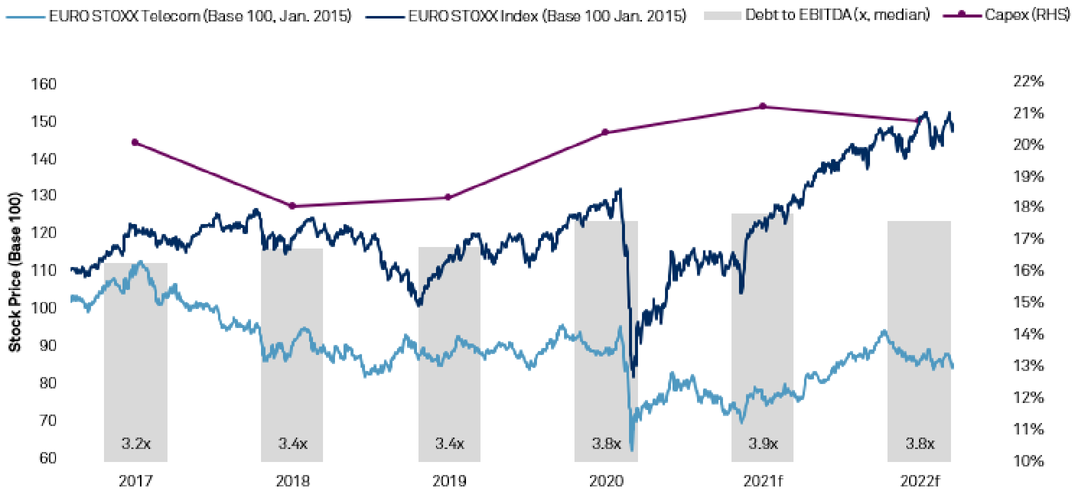
While fiber and 5G rollouts might increase customer upgrade prospects, we do not forecast material upside. To date, the benefit of fixed broadband upgrades hasn't been to the same degree as in the U.S. market, largely because of the much more favorable competitive dynamics for U.S. cable providers. We also see weak short-term prospects for a 5G premium. Nevertheless, our forecast for incremental revenue growth, combined with largely stable absolute capex, should translate into modest cash flow improvement and slightly lower leverage estimated at 3.8x by year-end 2022, from 3.9x a year ago.

In the GCC region, we expect that capex will remain high, at about 18% of revenue on average in 2021 as operators continue to expand 5G coverage, as well as further invest in network upgrades in their international subsidiaries. Capex should gradually reduce in 2022-2023 to 14%-17% of revenue, as the network upgrades and 5G investments are well advanced with a coverage of 90% or more of populated areas in the UAE, Qatar, and Bahrain. However, since telecom operators are often enlisted by GCC governments to invest in infrastructure projects as part of economic development programs, we think that investment is unlikely to dip any further.

In relatively stagnant conditions, what are the sector levers? Operators are confronting a dilemma wherein their services and assets have never been more in demand by customers and important to society at large, yet there seems to be little evidence of this in operational and stock performance. With market competition unabated and persistently high capex requirements, we expect minimal growth prospects for traditional activities and adjusted debt to EBITDA to remain above 3.5x combined, all amid stubbornly weak stock performance (see chart 13). European telecom operators are therefore looking for growth levers and deleveraging strategies. The primary options we see operators exploring include asset sales, 5G monetization, and increased digitalization.

Chart 13

Shareholder Pressure Could Mount After Weak Equity Performance But Telcos May Have Little Balance Sheet And Cash Flexibility



f—Forecast. Source: S&P Global Ratings.

Operators looking for ways to unlock the value of their infrastructure assets, starting with the sale of tower assets to help mitigate the industry's challenges. While the sale of these assets have been going on for some years now, 2021 has seen the closing of transactions with very high EBITDA multiples, including the sale in January 2021 of Telefonica's tower subsidiary, Telxius, to American Tower Co. at a record-high 30.5x EBITDA multiple, and the IPO of Vantage Tower in March 2021 at a 22x EBITDA multiple. Cyfrowy Polsat has taken an additional step, selling to Cellnex Telecom not only its passive infrastructure, but also its active equipment, which is traditionally retained and managed by the telecom operator.

Operators in the GCC region also rode the wave of asset monetization and we expect they will continue to do so. Some recent transactions include the listing of a 20% stake in solutions by STC in September 2021 which allowed it to raise $1 billion. Indosat Ooredoo, Ooredoo Q.P.S.C.'s (A-/Stable/A-2) Indonesian subsidiary also disposed of towers for a consideration of $750 million in 2021.

We believe the sale of tower assets will remain a popular arbitrage in 2022. Operators with large tower portfolios like Orange (which created a separate tower unit subsidiary) or Deutsche Telekom (which announced its openness to finding an industrial partner for deconsolidating its tower assets) could follow suit, and independent tower operators are increasingly eyeing Northern and Eastern Europe to continue their growth. High valuation multiples can still strengthen balance sheets and provide financial flexibility. However, sale and lease back adjustments create debt-like obligations that can partly or largely offset proceeds. In addition to the financial impact on credit, we also consider whether the sale could negatively affect operators' business profile by materially reducing their competitive differentiation. However, mobile differentiation occurs across multiple factors, including spectrum holdings and active equipment, so this has generally not been the case to date.

More recently, fixed-lined infrastructure, and fiber in particular, has joined this trend. Offloading capex can be especially compelling for telcos early in the fiber investment cycle, or for those that are looking to extend coverage to less dense areas with high connection costs per household. Fiber sales--generally at lower multiples than towers'--

can deconsolidate debt-funded capex and reduce leverage pressure. Still, whether the strategic importance of the assets, and our view of the permanence of the deconsolidation are key considerations for us to follow the deconsolidation approach or, to the contrary, reconsolidate earnings, capex and debt into telcos' balance sheet potentially limiting deleveraging benefits from proceeds (see table 1).

Table 1

Joint Venture Treatment

Company Accounting	Company/Network	Asset Maturity	Ownership	S&P Approach
Deconsolidation	TEF Germany, Chile and Brazil JVs	Greenfield	50%	Deconsolidate
	Iliad	Largely Greenfield	49%	Pro rata
	Bouygues Fiber JVs	Largely Greenfield	49%	Pro rata
	Altice France	Largely Greenfield	50.01%	Pro rata
	Proximus Fiber JVs	Greenfield	50%	Pro rata
	KPN Fiber JV	Largely Greenfield	50%	Deconsolidate
Consolidation	Altice Portugal	Completed	50.01%	Pro rata

Source: S&P Global Ratings.

The industry has high long-term hopes for 5G opportunities, but we see only modest prospects in the short-term, with much of the cost front-loaded:

- Large spectrum outlays: 5G frequency auctions are finishing in Europe, though scheduled payments will continue to weigh on cash flows.
- High network capex: The extended buildout timeframe for 5G will help moderate swings in capex intensity, but it will be prolonged and with no sharp curtailment.
- Weak short-term monetization prospects for traditional connectivity.

We are particularly bearish on short-term revenue upside given Europe's competitively priced markets and the marginal 5G enhancement for today's most common mobile use-cases: traditional communication and apps, streaming, and social media. For instance, in France, Orange, Bouygues Telecom, and SFR launched 5G mobile plan with enriched data plans at a premium (€2-€5 per month), but Free upgraded its commercial plans to 5G at no extra cost.

In the medium-to-long term, we expect additional revenue potential, but mature and compelling use cases are still nascent. We expect the principal growth driver will be from new subscriptions, primarily machine-to-machine (M2M), to support new use cases requiring the unique attributes of 5G.

As 5G matures, the ability of operators in Europe (as in other regions) to move beyond connectivity and tap into the value added by new use cases is uncertain. To participate in the value created by autonomous driving and smart cities, or more specialized applications like remote medical procedures and augmented reality, operators will have to move from being connectivity providers to suppliers of more comprehensive IoT-based services.

Many operators are therefore diversifying--mainly through partnership or M&A--from more traditional voice and connectivity services to value-added digital services covering a wide range of IT-related, cyber security, IoT, or cloud-based services. This strategy also seeks to find alternative paths for growth while traditional services are becoming more and more utility-like. For instance, Telefonica created in 2019 Telefonica Tech, a subsidiary seeking to capture the growth of the digital services market to enrich its B2B offering. As part of its 2025 ambitions, Orange will also focus on accelerating IT service development for B2B customers while scaling up cybersecurity.

In the GCC region, we also think that the companies will continue to expand non-telecom businesses in pursuit of growth opportunities, including fintech, high-tech, cyber and data. In 2021, STC subsidiary stc pay was granted a digital bank license, after the parent sold a 15% stake in the company to Western Union in 2020.

Credit metrics and financial policy

Our forecast for modest revenue growth, combined with continued cost-saving efforts, should translate into modest deleveraging from the 2021 peak, with adjusted debt to EBITDA at about 3.8x in 2022, from 3.9x in 2021. This is also supported by slightly more benign capex intensity that should improve cash flow. We believe selective asset monetization can enhance financial flexibility, although it depends on the use of proceeds and our adjustments for leases or minority ownerships.

Dividend cuts and script dividends have been largely accepted so far, but we believe rising demand for shareholder returns and private equity interests could pressure policies. The offer of KKR for Telecom Italia is an example of this interest, while asset monetization or M&A could increase return for shareholders depending on the allocation of proceeds.

In the GCC region, dividend distributions will remain sizable, balanced by moderate leverage at well below 2x on average. Etisalat and STC sustain ample headroom under the ratings given the companies' minimal leverage, which leaves leeway for external growth initiatives. In 2021, Etisalat increased its stake in Maroc Telecom by 4.6% to 53% in a United Arab Emirates dirham 1.9 billion debt-funded transaction.

Key risks or opportunities around the baseline

1. Regulation--there is potential for more supportive policy

We believe regulation on wholesale activities and in-market consolidation could become less constraining as COVID-19 has highlighted the value of well invested networks.

2. Customer protection remains a key focus in many markets

Customer protection will remain a key focus with several markets opening to a fourth player and the approval of stimulus spending that could also boost consumer spending.

3. Ongoing supply chain disruptions and cost input inflation could hurt margins and free cash flow

The impact of global supply chain challenges and cost input inflation have been somewhat muted for telecom and cable providers. However, supply chain disruptions and inflation could still further pressure margins, especially in the most competitive markets and absent any pass-through mechanism.

There is potential for more supportive regulatory policy. As operators continue to struggle with minimal growth prospects and uncertain returns on capex, we think more supportive regulation could be catalyzed by the pandemic, which has highlighted the value and strategic importance of well-invested networks in the eyes of many stakeholders. Given the societal benefits, government and regulators may rebalance priorities toward stronger support of network investments, and therefore be willing to pursue more supportive frameworks. For example, we expect more relaxed wholesale regulation could support an acceleration in next-generation fixed broadband investment. So far, many incumbents may have dragged their feet on fiber deployment because they were concerned over being forced to provide access to competitors. In this context, in 2021, the Spanish regulator updated the country's wholesale fixed broadband rules in an attempt to promote investments. It decided to significantly increase the number of cities deemed "competitive" to 696 (accounting for 70% of the Spanish population) from 66 (35%), which means incumbent Telefonica is no longer required to provide wholesale access to its fiber network in these areas. In March 2021, the U.K. regulator, Ofcom, announced new guidelines for the country wholesale telecom market with the objective to foster fiber investments and support the shutdown of the copper network.

Both the European Commission and national governments aim at fostering broadband uptake. We estimate about €34 billion of direct and indirect broadband support from the European Commission, or about €5.7 billion per year over 2021-2026, and over €24 billion of additional direct broadband support from national governments (including the U.K.), or €4.8 billion per year over 2021-2025. We therefore estimate total annual contribution of about €10.5 billion per year over 2021-2025, which is just at or below 12% of total annual forecast capex for European rated telcos and cablecos. These funds are still in their infancy and are likely to be spread across a variety of programs, including supply side loans and grants to support investments, demand side customer subsidies, and indirect support to other stakeholders in the wider broadband ecosystem. Neither we nor issuers are likely to incorporate into capex or revenue assumptions until funding is more explicitly allocated or disbursed.

Qualitatively, on the supply side, we believe these funds could subsidize and boost network investment. In the U.K. for instance super tax deduction on qualifying investment means that BT expect to pay no U.K. tax in its current financial year ending March 31, 2022, and in its next financial year. This is a total tax saving of £0.6 billion-£0.8 billion, or £0.3 billion-£0.4 billion per year, 7%-9% of BT's adjusted capex. This supported its decision in May 2021 to accelerate FTTP rollout by an additional 5 million premises by 2026.

On the demand side, funding aims at supporting customer demand by encouraging new connections and upgrades. For instance, Italy benefits from broadband voucher programs to help low-income families access high-speed broadband services, to reduce the digital divide without influencing competition.

We could also see increasing tolerance for M&A and in-market consolidation, which could drive long-term benefits to market structure and create a more sustainable competitive environment. In 2021, several in-market deals were announced or closed, including the acquisition of regional cable and telecom provider Euskaltel by Masmovil in Spain, the takeover of MVNOs Euro Information Telecom and Coriolis by Bouygues Telecom and SFR, respectively, in France, and the closing in mid-2021 of the joint venture between Virgin Media and O2 in the U.K. We believe the trend could continue, starting with the potential combination of Telecom Italia's fixed asset unit FiberCop with national wholesale broadband player Open Fiber to create a national wholesale broadband player in Italy, and the merger between mobile operator Orange Belgium with cable operator Voo if approved by the European Commission.

Customer protection remains a key focus in many markets. We don't believe a complete regulatory volte-face is in the cards. Customer protection remains a priority as recently reminded by the U.K. competition watchdog announcing that Cellnex's proposed acquisition of CK Hutchison's towers in the U.K would harm competition by preventing the emergence of a third national tower player, translating into higher prices or worse terms for mobile operators and their customers. While not a direct verdict on the core mobile operator market structure, the decision indicates that customer protection and enhanced competition will remain a key regulatory and governmental focus, especially in some countries that are taking advantage of 5G-spectrum auctions to open the market to a fourth player like in Portugal or Belgium, for instance.

Ongoing supply chain disruptions and cost input inflation could hurt margins and free cash flow. To date, the impact of global supply chain challenges and cost input inflation have been somewhat muted for European telecom and cable providers. However, supply chain disruptions and inflation could yet pressure margins, especially in the most competitive markets and absent any pass-through mechanism.

Labor (accounting for about 25% of total costs) and energy (5%-10%) pose the most relevant inflation risk for telco margins (see table 2).

- So far, the impact from the labor market has been muted, and we view inflation pressure as a greater near-term risk in the U.S. However, persistent inflationary pressure could push wages higher, presenting a challenge to the cost-cutting and margin growth strategies of many operators.
- Energy price increases are already a reality across Europe, and may have a tangible effect on margins, particularly as contracts reset or hedges roll off. In Spain, Telefonica earnings were affected by higher energy costs over the first nine months of 2021 because there are no inflation-linked retail tariffs in the country, and despite some mitigants including promotion of more-for-more, pass-through mechanisms in most wholesale contracts, and cost efficiency measures. On the contrary, in the U.K., we expect inflation-linked price increases will support profitability and act as a hedge against inflationary pressures for operators like Vodafone, BT and Virgin/O2.

Table 2

Three Main Areas Of Concern For The European Telecom Industry

Margins		Capex
Labor (~25% of total cost)	**Energy (5-10% of total cost)**	**Material & Equipment**
Labor inflation muted in Europe (so far)	Price hedges can mitigate in short-term	Possible delays or scale downs

Source: S&P Global Ratings.

Capex inflationary risk is mainly driven by supply chain bottlenecks creating scarcity for material and equipment. However, operators are only partly exposed. Long lead-time contracts can smooth the impact from transitory inflationary pressure. We also believe telcos have the option to delay or scale down their spending as they did in 2020 to protect their cash flow and absorb negative impact on their operations from the pandemic. Furthermore, material and equipment is only a portion of capex budgets, with the majority still linked to labor and construction, as well as software elements subject to less inflation risk.

Latin America

Ratings trends and outlook

Latin America issuers have significantly improved their negative rating bias to about 17% from close to 35% a year ago. The issuers with this negative rating bias are mostly in the speculative-grade category, which represent close to 80% of our rated portfolio. Conversely, most IG issuers maintain a stable outlook not only based on their ability to cope with a difficult business environment over the past two years, but more importantly because their healthy balance sheets provide flexibility to absorb a gradual ramp-up in capital investments in the months to come. Overall, issuers with stable outlooks account for 82% of the portfolio, compared to 64% a year ago This means we don't anticipate many rating actions, at least on a stand-alone basis. Nonetheless, some issuers face sovereign caps, or their creditworthiness correlates to some extent with the rating of a stronger parent company. We've identified some cases where majority shareholders would be seeking to divest certain operations, which could point to a lower commitment of extraordinary support, potentially diminishing the credit quality of some carriers. In Argentina, credit quality for the sector is weighted by tighter central bank regulations on accessing foreign exchange.

Main assumptions about 2022 and beyond

1. Limited upside on profitability due to intense competition

The race for market share is resulting in greater downside pressures on top line growth and margins.

2. Increasing capex to accelerate 5G deployment and network improvements

We now expect increasing multi-annual capital investments programs for network enhancements and technological upgrades.

3. Limited regulatory activity providing certainty on short-term industry dynamics

Existing legislation remains a key factor in the orderly growth of the telecom industry in 2022, as it provides certainty to sector participants.

Intense competition means limited upside to profitability. Telcos in the region performed better-than-expected throughout the pandemic, but the sector's revenue and margins have not escaped the very intense competition. Some carriers have emphasized their focus on market share through the launch of more affordable offerings and highly competitive bundled packages, including services that drive the take-up of fixed-line broadband, such as video on demand. In parallel, a declining trend in traditional fixed-line teledensity remains, with consumers switching to mobile networks and to fixed broadband for voice and data connectivity.

Even as fixed broadband penetration is now relatively high in the region, development efforts for new and enhanced high-capacity connectivity to further capture demand for fixed-line broadband will continue. We see the sector maintaining investment allocations on fiber broadband during 2022, which could lead to double-digit growth in the number of fiber subscribers.

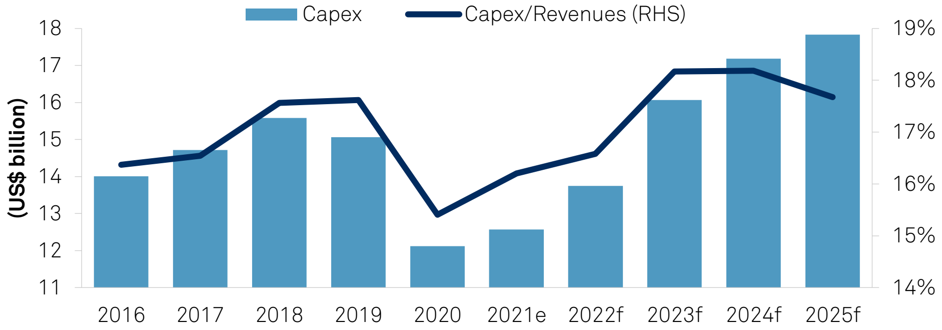
We expect carriers to maintain competitive value offerings in the mobile postpaid business, underpinning positive net portability although denting ARPUs. We also expect ongoing migration to postpaid services from prepaid in the mobile segment, as well as increased data usage in the next few years. In short, we expect profitability could come under pressure, although we're expecting the sector's EBITDA margins to remain comfortably above 30%.

Accelerated 5G deployment and network improvements lead to increasing capex. As the competitive landscape in Latin America continues to evolve, leading carriers not only intensify their efforts to protect and expand market share, but also execute multi-annual investments for network enhancements and technological upgrades. Wireless penetration continues to improve across the region and recent 5G spectrum auctions have been rolled out. We're expecting increasing competition for the deployment of 5G networks in countries like Chile, Brazil, Mexico, and Peru. Many carriers are actively participating in these auctions and take steps in terms of digital equity.

In our view, we should see an uptick in capital investments trending towards 20% of revenue, as companies deploy strategically important spectrum licenses and continue to extend FTTH coverage (see chart 14). We also anticipate funding allocations over the next two years mainly to increase fiber optic coverage, expand the existing 4G-4.5G footprint, increase the B2B installed capacity, and for maintenance purposes. This investment will likely constrain free operating cash flow, and for some companies delay deleveraging.

Chart 14

LatAm Capex Profile



e—Estimate. f—Forecast. Source: S&P Global Ratings.

Limited regulatory activity provides certainty on short-term industry dynamics in 2022. However, we could see updates to minimize market asymmetries and limit the excessive influence from the largest operators. In Brazil, regulator Anatel is planning a public consultation to update the general competition plan, which regulates the sector's competitive framework. Anatel will assess the effectiveness of current regulations to contain players with significant market power. We expect the resulting regulatory update would incorporate mechanisms to address new delivery models for telecom and connectivity services, particularly as 5G is rolled out. Also in Brazil, and similar to the Colombian model, Anatel is exploring regulatory sandboxes to test new business models that provide innovate improvements to market participants.

In Mexico, telecom regulator IFT is seeking to speed up dialogue with the productive and industrial sectors to maximize gains with 5G technology. It is also considering complementary initiatives under the 5G roadmap, including the reorganization of low, mid, and high spectrum bands to assign to 5G. Another priority will remain in 4G connectivity, as well as lowering the cost of spectrum and reordering frequencies.

The rollout of regulatory convergence has been rather slow, and this year we could see progress in the approval of significant pro-convergence regulations in certain jurisdictions like Mexico and Brazil. Argentina is one of the few large markets that has been recently pushing convergence, where Telecom Argentina holds the leading market position. In Chile, operators continue to deliver bundled packages of fast broadband and TV, and keep up upgrades from asymmetric digital subscriber lines to ultra-fast broadband to protect market share.

Credit metrics and financial policy

Following a two-year period of prudent financial management to address the high uncertainty triggered by the pandemic, this year we're expecting telcos in Latin America to normalize shareholder returns in the form of dividend payments and share repurchases. Yet we still expect a somewhat conservative leverage tolerance and liquidity to remain an important priority. These two factors can become particularly relevant under a scenario of tight financing conditions, if central banks decide to accelerate interest rates increases to contain inflationary pressures.

We also see as very unlikely that efforts to preserve cash during the pandemic would relax any time soon, particularly considering cost inflation pressures that are gradually undermining profitability. While we don't expect material improvements in leverage over the next couple of years due to greater capital spending and sluggish business conditions that would curtail EBITDA growth, we expect telcos to maintain a median debt-to-EBITDA ratio near 3x and funds from operations to debt in the 30% area, which speaks of the relative financial health that the region's Telecom sector has compared to other industries.

In addition, we expect issuers will continue to manage foreign exchange exposure to address the mismatch between local currency denominated revenues and foreign currency debt. Sovereign ceilings or parent company rating caps are still relevant factors that could weigh on a few investment-grade names.

Key risks or opportunities around the baseline

1. Initiatives to unlock shareholder value would also support credit quality.

Divestments and spin-offs would bolster targeted growth, profitability, and cash flow.

2. Weak economic conditions and sovereign risk still relevant credit factors

Telco's will have to cope with sluggish economic activity that can be exacerbated by persistent inflation, higher interest rates, weak labor dynamics, and political cycles.

3. Telcos should not lose sight of exchange rate volatility

A sudden period of exchange rate volatility could undermine cash flow and pressure balance sheets.

Initiatives to unlock shareholder value would also support credit quality. For 2022, we expect the implementation of strategic initiatives from different industry players, aimed towards accelerating growth and unlocking value for shareholders. One transaction relates to the creation of a joint venture between America Movil and Liberty Latin America (owner of VTR) to expand operations in Chile, with a focus on broadband and mobile services. In our view, this transaction could yield run-rate synergies of about $180 million annually, mainly from cost efficiencies and service cross-selling.

We also expect the completion of America Movil's announced plan to spin off its telecom towers and other related passive infrastructure in the region, consisting of approximately 36,000 telecom towers in 15 countries. We don't see this type of initiative as indicating changes in strategic objectives or adjustments to the business model itself, but instead we think they signal the adoption of strategies to gain flexibility and improve operating efficiencies. We also think they can help develop targeted financial plans and capital allocations to spur growth and strengthen a carrier's competitive position, which can contribute to improved credit metrics.

In Chile, Telefonica Moviles Chile's (TMC's) divestment of its fiber optic network will allow for a faster deployment of network services in the next few years, and ultimately enable

Telefonica Chile to reduce capex that could alternatively fund the 5G rollout. This also creates opportunities for TMC to transition from its pay-TV business to broadband TV, which would contribute to incremental cash flow.

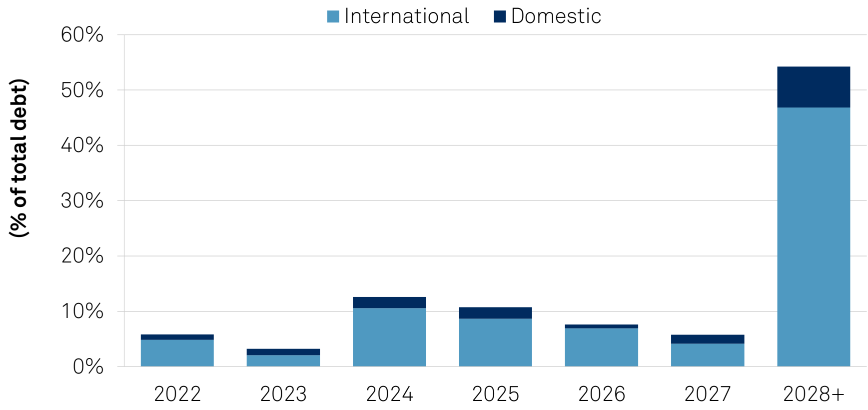
Weak economic conditions and sovereign risk are still relevant credit factors. We recently revised our 2022 GDP growth forecast for the six major Latin American economies downward by roughly half a percentage point--to 2% from 6.6% expected in 2021. This captures inflationary pressures that would be less transitory than expected, which will translate into higher interest rates across the region. Several factors also keep downside risks to growth particularly high in 2022. Slow growth, high inflation, and still-weak labor market dynamics amid political cycles, will increase demand for continued fiscal stimulus measures. This could add more upward pressure on interest rates to compensate for the associated higher fiscal risk premia and keep investment subdued. Two countries stand out for having a higher risk of GDP deteriorating more than expected in 2022: Chile and Brazil. In Chile, domestic demand surged in 2021 due in large part to sizable stimulus measures that are unlikely to be repeated in 2022. In Brazil, the ongoing aggressive tightening monetary policy that will continue into 2022, partly due to weaker fiscal dynamics, threatens to take a large toll on domestic demand.

This slow economic growth, coupled with political cycles in some countries, and the persistent return of COVID-19 waves could weigh on sovereign credit quality in some countries, which is an important consideration for some players in the region. For instance, the negative outlook on America Movil reflects potential downside risks related with the negative outlook on Mexico. In the case of Telefonica Brasil, we can rate the company above the Brazilian sovereign long-term foreign currency rating, although the rating is limited by Brazil's transfer and convertibility (T&C) assessment, since the company's operations are concentrated in that market. In the same way, we cap the rating on Telecom Argentina at the level of our T&C assessment on Argentina, because the bulk of the company's revenue and EBITDA come from domestic operations.

Telcos should not lose sight of exchange rate volatility. Exposure to exchange rate volatility is an important risk for telco operators in the region, considering that the sector faces a partial mismatch between local currency denominated revenues and foreign currency denominated debt, mostly in U.S. dollars. We expect that under a scenario of a sharp currency depreciation, cash flow could come under pressure and undermine the trajectory of credit metrics. Foreign currency debt accounts for about 80% of total debt held by telcos in the region, and the natural hedge on currency mismatch represents about 25% of those obligations (see chart 15). This means, that a 10% depreciation of the major currencies in the region could result in a contraction of operating cash flow and leverage could increase by as much as 0.2x.

Chart 15

LatAm Debt Maturity Profile



Source: S&P Global Ratings.

Asia Pacific

Ratings trends and outlook

Most telecom companies in Asia-Pacific (APAC) sustain steady and stable credit quality. This is on the back of our expectation that these companies will witness stable growth in their earnings and maintain prudent financial policy and disciplined capital investment over the next 12-24 months.

This steady and somewhat improving trend was reflected in some of the rating actions we took over the past 12 months. We revised our outlook to stable from negative on Hong Kong Telecommunications (HKT) Ltd. on parent PCCW Ltd.'s deleveraging progress. We revised our outlook on Bharti Airtel Ltd.to stable from negative on account of the company's strengthening operations and leverage management. We also took a similar rating action on SK Telecom Co. Ltd., revising our outlook to stable from negative reflecting its improving operating performance.

Main assumptions about 2022 and beyond

1. Operating performance should remain steady despite a prolonged pandemic

Most APAC telecom operators can maintain steady operating and financial performances amid a prolonged pandemic, owing to the sector's low cyclicality and utility-like demand characteristics.

2. Capital spending will remain elevated amid continued investments for advanced networks such as 5G and newer growth areas

We expect capex to remain high next year with continued 5G deployment and network upgrades. Continued large capital investment is likely for 5G networks in Korea, China, Japan, and Australia. We anticipate rising capex for 5G expansion in Singapore and the Philippines. Also, we expect ongoing capital investment by certain operators in the field of ICT as they look at digitalization and increasing cloud usage as newer growth avenues.

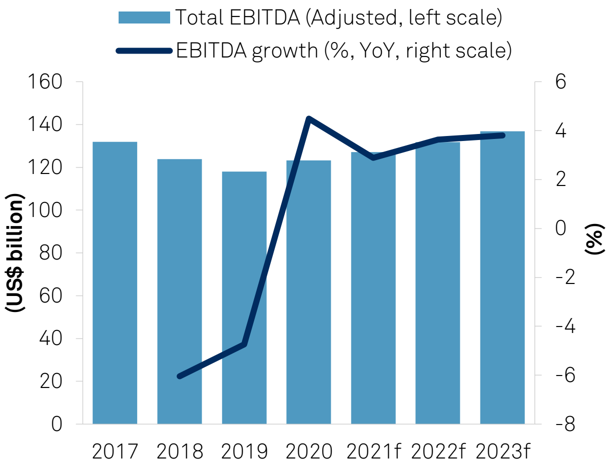
3. M&A and business restructuring trends will continue

We expect continued acquisition activity in the region given the telecom-media convergence trend and the appetite of some telcos to restructure their businesses such as spinoff and monetization of tower assets.

Operating performance should remain steady despite a prolonged pandemic. Although the world remains in the grasp of the pandemic and related economic stress owing to the omicron variant, we believe the sector will continue to be immune to material negative impacts thanks to its utility-like demand characteristics and low cyclicality. Furthermore, continued expansion in demand for data amid stay-at-home trends will help telcos boost earnings as users opt for higher priced data plans (5G, high speed, and higher data limit plans) for their wireless and fixed-broadband connections. Still, some operators in APAC will witness a delayed rebound in their roaming revenue as international travel faces new concerns given omicron. Overall, under our base-case scenario, we expect moderate earnings growth for telcos in 2022 (see chart 16).

Chart 16

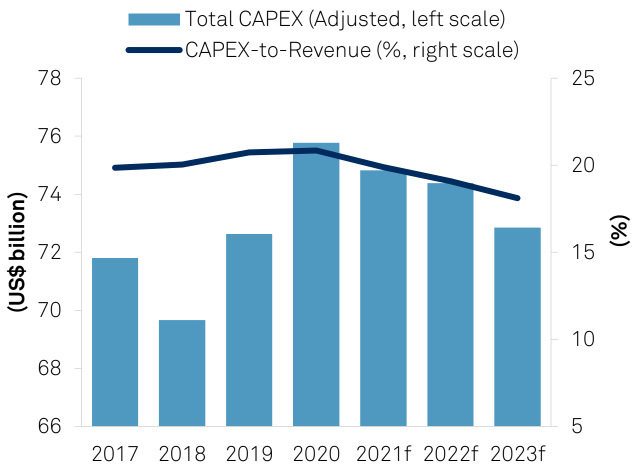
APAC Telcos' EBITDA To Moderately Grow In 2022



f—Forecast. Source: S&P Global Ratings.

Chart 17

APAC Telcos' Capex To Remain Elevated Over Next 12-24 Months Amid Needs To Deploy Advanced Networks Such As 5G



f—Forecast. Source: S&P Global Ratings.

Capital spending will remain elevated. We expect ongoing capex needs for APAC telcos in 2022 as they expand deployment of advanced networks such as 5G (see chart 17). In our view, high capital investments for 5G networks will continue, albeit in a disciplined manner, in developed markets such as Korea, China, Australia, Japan, Taiwan, and Hong Kong. We expect telcos in these regions take measured approaches in their investment plans given advanced enterprise and industrial use cases are still in varying degrees of development and some years away. However, in regions such as Singapore and the Philippines, we anticipate rising capex for 5G network expansion over the next two years. We also expect ongoing capital investments by certain operators in the field of ICT as they look at digitalization and increasing cloud usage as newer growth avenues.

M&A and business restructuring trends will continue. In the region, operators are pursuing cost synergies, economies of scale, and telecom-media convergence. In Korea, all three telecom players (KT Corp, SK Telecom Co. Ltd. (SKT), and LG Uplus Corp.) have acquired cable TV operators to strengthen their media and pay-TV market position. In Malaysia, Axiata Group Bhd.'s Malaysia subsidiary plans to merge with Telenor ASA's Malaysia subsidiary. In Thailand, Total Access Communication Pcl, subsidiary of the second-largest operator Telenor ASA’s announced its merger with the country’s third-largest operator True Corp. Axiata also recently announced an acquisition of broadband and cable TV operator PT Link Net Tbk. There was also acquisition of Amaysim (Australia’s largest mobile virtual network operator) by Singtel Optus.

At the same time, some telecom operators are restructuring their businesses. Telstra, Singtel Optus, and CK Hutchison Group Telecom have recently monetized their telecom infrastructure assets, while SK Telecom in late 2021 split its existing business by creating a separate holding company for its ICT businesses.

Key risks or opportunities around the baseline

1. Growing 5G services

We continue to see steady new subscriptions for 5G services across markets such as Korea, China, Japan, and Australia since its launch. However, new and profitable industrial 5G use cases are still fairly distant and will remain a challenge for operators globally over the next few years.

2. Intense competition

Operators in many APAC markets, such as Malaysia, Thailand, Singapore, the Philippines and Japan, are continuing with aggressive pricing strategy and marketing to maintain their market positions. Entrance of new operators in Japan (Rakuten Inc.), Singapore (TPG), and Philippines (Dito Telecommunity Corp.) has further intensified wireless market competition.

3. Deeper recession

Although benefiting from utility-like demand characteristics, a deep recession with reduced spending on telecom services and rising bad debt could dent the region’s telecom operators. High cost inflation and scare related to omicron could also impair earnings recovery for these operators.

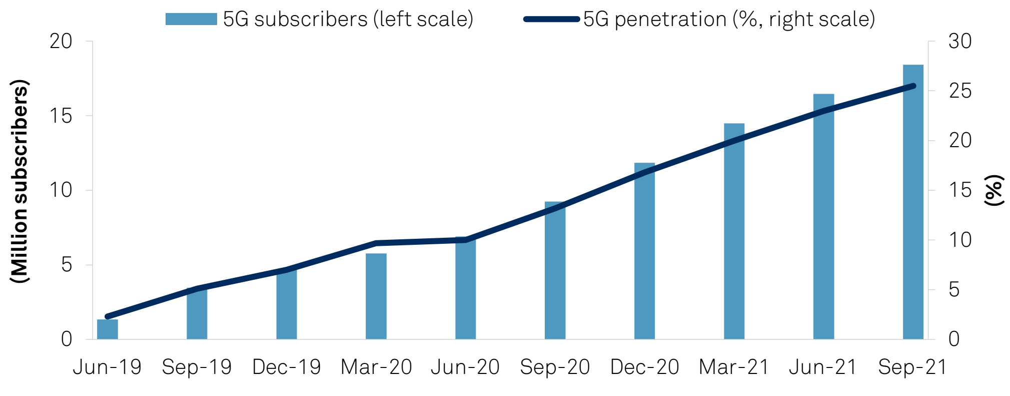
5G service is increasing. 5G adoption remains steady but more profitable use cases still remain distant. After Korea's 5G rollout began in April 2019--followed by Australia, China, and Japan--we see steady new 5G subscriptions (see chart 18). Despite potential revenue growth opportunities from higher 5G wireless tariffs, telecom operators need to manage investment burdens for 5G spectrum auctions and network expansions as developing new and profitable 5G use-cases still remain challenging for all operators.

Competition remains intense. This includes wireless tariff cuts or aggressive marketing in countries such as the Philippines, Singapore, Japan and Thailand. Entrance of new operators in Japan (Rakuten Inc.), Singapore (TPG Telecom) and Philippines (Dito Telecommunity Corp.) have further increased wireless competition.

A prolonged pandemic could lead to a deeper recession. Sluggish Asia-Pacific economies, reduced spending on telecom services, and rising bad debt may dent the region's telecom operators. Also, growing concerns related to omicron's spread and sustained high inflation may also derail the earnings recovery expected in 2022.

Chart 18

Cumulative 5G Subscribers In Korea



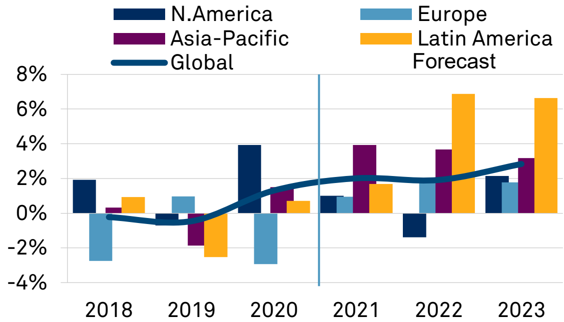
Sources: S&P Global Ratings, Ministry of Science and ICT, Korea.

Industry forecasts

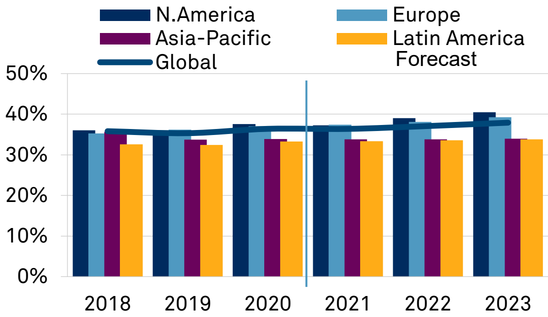
Telecommunications – Fixed and Wireless

Chart 19

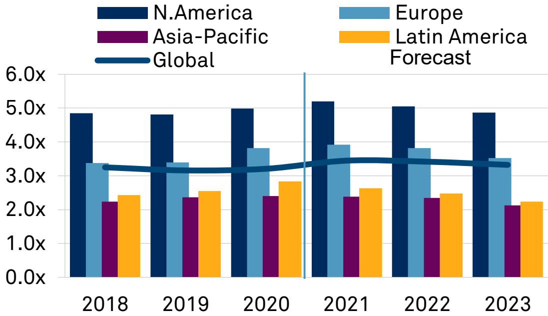
a) **Revenue growth (local currency)**



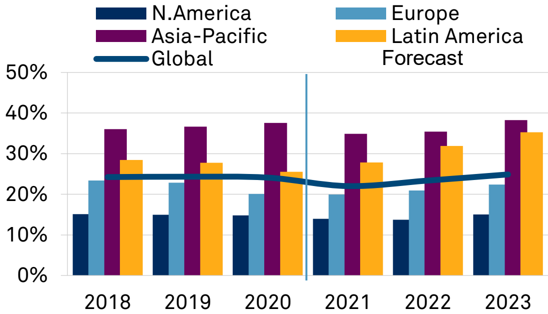
b) **EBITDA margin (adjusted)**



c) **Debt / EBITDA (median, adjusted)**



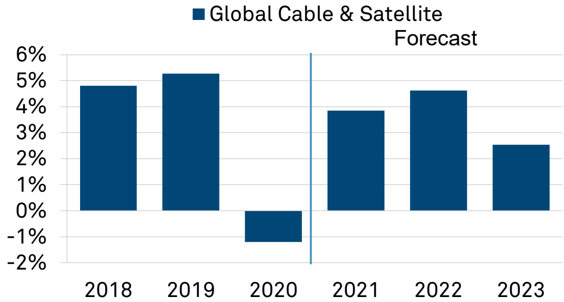
d) **FFO / Debt (median, adjusted)**



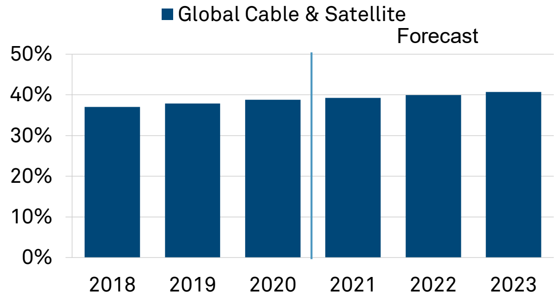
Cable and Satellite

Chart 20

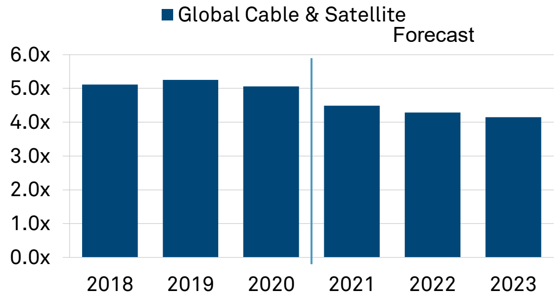
a) **Revenue growth (local currency)**



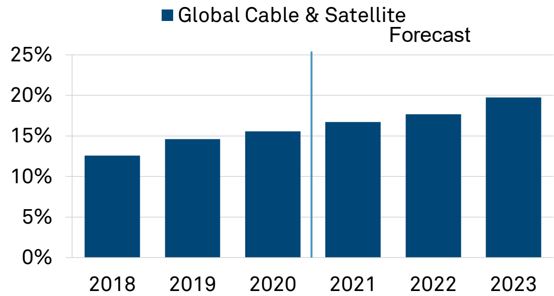
b) **EBITDA margin (adjusted)**



c) **Debt / EBITDA (median, adjusted)**



d) **FFO / Debt (median, adjusted)**



Source: S&P Global Ratings. Revenue growth shows local currency growth weighted by prior-year common-currency revenue-share. All other figures are converted into U.S. Dollars using historic exchange rates. Forecasts are converted at the last financial year-end spot rate. OEMs—Original equipment manufacturers. FFO—Funds from operations.

Cash, debt, and returns

Global Telecommunications

Chart 21

Cash flow and primary uses

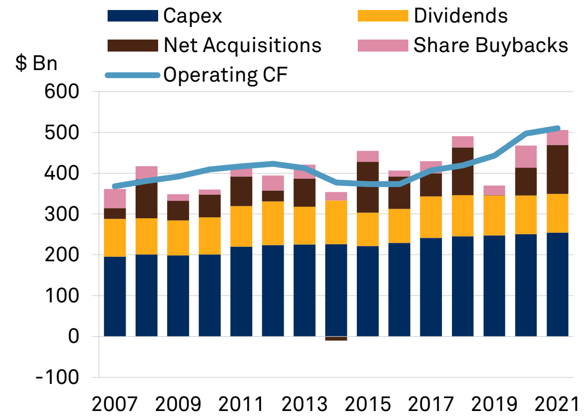


Chart 22

Return on capital employed

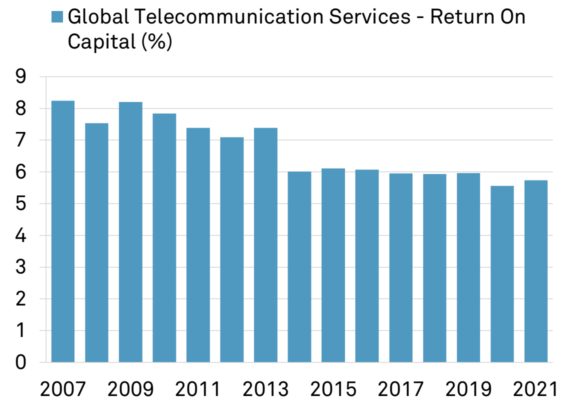


Chart 23

Fixed versus variable rate exposure

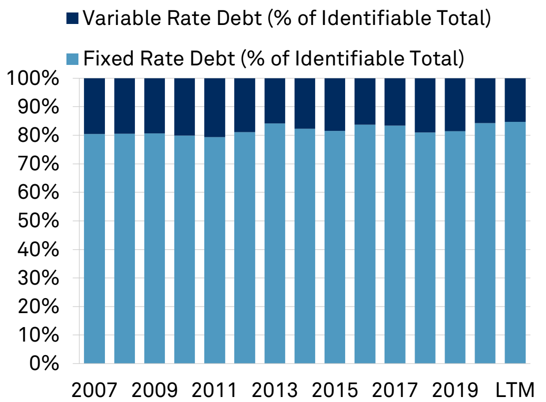


Chart 24

Long term debt term structure

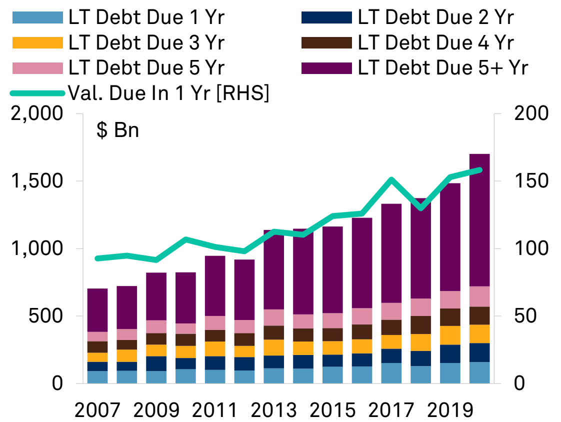


Chart 25

Cash and equivalents / Total assets

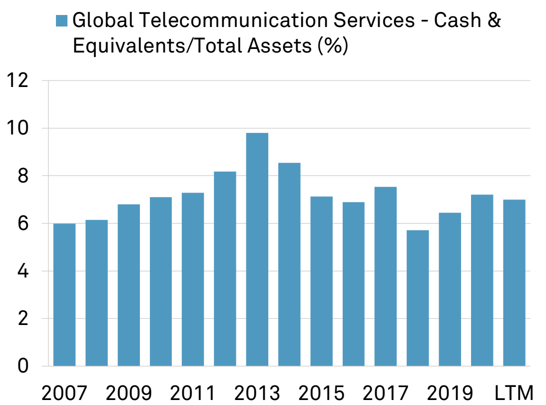
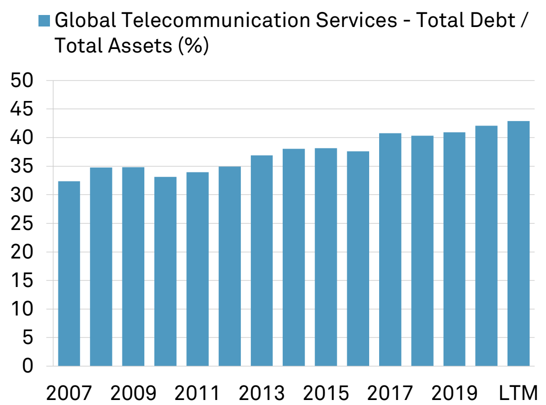


Chart 26

Total debt / Total assets



Source: S&P Global Market Intelligence, S&P Global Ratings calculations. Most recent (2021) figures are using last twelve months (LTM) data.

spglobal.com/ratings