

T-Mobile US, Inc. (TMUS)

Communication Services – Telecom Services

November 21, 2024

Investment Thesis

T-Mobile is taking advantage of the growth path it created for itself through savvy consumer-focused marketing tactics and acquisitions (notably Sprint in 2020). The firm has seized market share and easily has the best 5G network. TMUS is due for growth through M&A activity and continued expansion of its customer base and 5G technology. We believe the firm is solidifying a strong advantage in the wireless space. For these reasons, we give it a BUY rating, with a target price of \$303, representing a return of 27.8% from its current price.

Drivers of Thesis

- We forecast T-Mobile's postpaid business to grow by a CAGR of 5.5% through 2028, due to an expanding customer base and dominant 5G network.
- We project T-Mobile's operating cash flows to grow by a CAGR of 9.1% through 2028, which provides significant support to their annual CapEx of \$9b+ for infrastructure maintenance & developments in new tech sectors.
- The firm boasts the lowest postpaid churn among peers, and we expect that to continue due to their leading 5G network and customer-first approach.

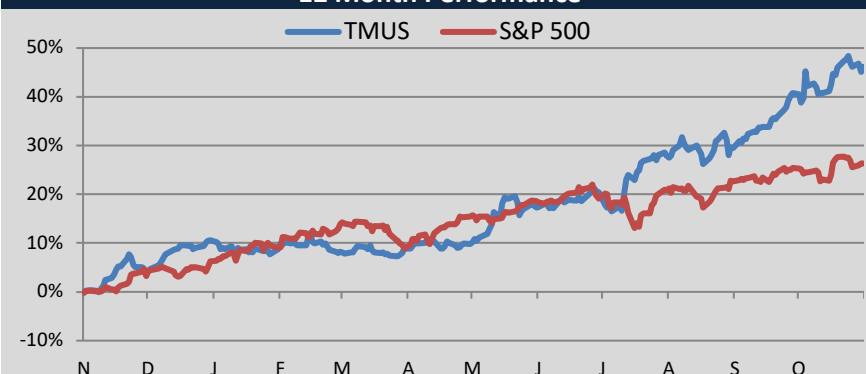
Risks to Thesis

- The firm has a majority shareholder in Deutsche Telekom, which could negatively impact strategy and operations.
- T-Mobile is over-eager in the M&A space and pending transactions become more costly than expected or do not go through.
- The firm could face intense price competition from competitors that would increase customer churn rates and lessen T-Mobile's customer base.

Earnings Estimates

Year	2021	2022	2023	2024E	2025E	2026E
EPS	\$2.42	\$2.07	\$7.02	\$9.41	\$10.70	\$12.84
HF est.				\$9.57	\$11.61	\$13.80
Growth	-9.5%	-14.5%	238.6%	34.1%	13.7%	20.0%

12 Month Performance



Stock Rating

BUY

Target Price

\$303

Henry Fund DCF	\$303
Henry Fund DDM	\$267
Relative Multiple	\$112

Price Data

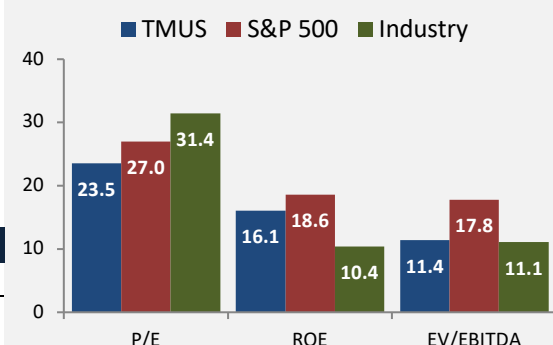
Current Price	\$235
52wk Range	\$148 – 242
Consensus 1yr Target	\$238

Key Statistics

Market Cap (B)	\$273.3B
Shares Outstanding (M)	1,160.0
Institutional Ownership	95.9%
Beta	0.7
Dividend Yield	1.5%
Est. 5yr Growth	4.2%
Price/Earnings (TTM)	23.5
Price/Earnings (24E)	25.0
Price/Sales (TTM)	3.0
Price/Sales (24E)	3.4

Profitability

Operating Margin	18.2%
Profit Margin	61.6%
Return on Assets (TTM)	5.0%
Return on Equity (TTM)	16.1%



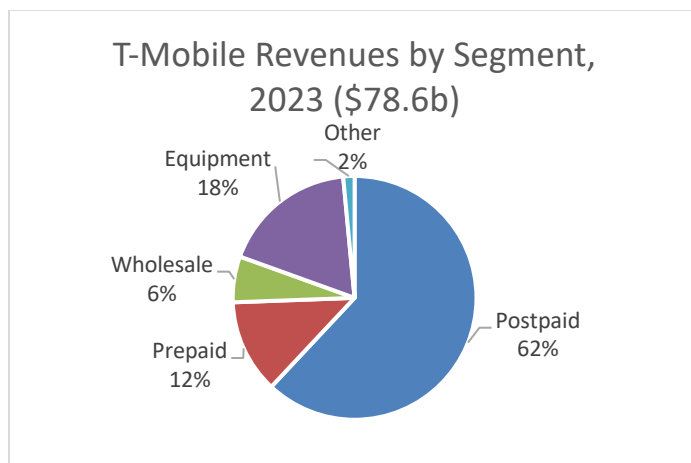
Company Description

T-Mobile is a leading wireless carrier known for its extensive 5G network. Most of the firm's business revolves around supporting phones. However, the firm is forging into the business of home internet through fiber and 5G wireless networks, as well as supporting AI and other data-intensive applications. The firm has grown significantly in recent years due to its acquisition of Sprint and its customer-first approach. The firm has a foreign majority shareholder, Deutsche Telekom, which is Europe's largest telecommunications company.

COMPANY DESCRIPTION

T-Mobile is a leading wireless network operator and telecommunications company. The firm provides postpaid and prepaid wireless voice, messaging, and data services, and wholesale wireless services. TMUS operates in two flagship brands: T-Mobile and Metro by T-Mobile. Metro by T-Mobile focuses on offering affordable, prepaid wireless plans that offer a comparable experience to other carriers, while a downgrade to T-Mobile's postpaid plans. The firm has a \$271 billion market cap and has become the largest telecommunication services company in the United States. T-Mobile has improved its market positioning in recent years through mergers and acquisitions, most notably merging with Sprint in 2020. This deal gave the firm the ability to offer America's first standalone 5G (fifth generation) network, which is the largest and fastest in the United States. T-Mobile's 5G network covers nearly the entire country, with its total coverage reaching nearly 98% of Americans.

T-Mobile reports in five segments: Postpaid, Prepaid, Wholesale, Equipment, and Other. Postpaid, Prepaid, and Wholesale encompass T-Mobile's total service revenues. T-Mobile's service revenues make up approximately 81% of their total revenue. A breakdown of T-Mobile's total revenue is displayed below.

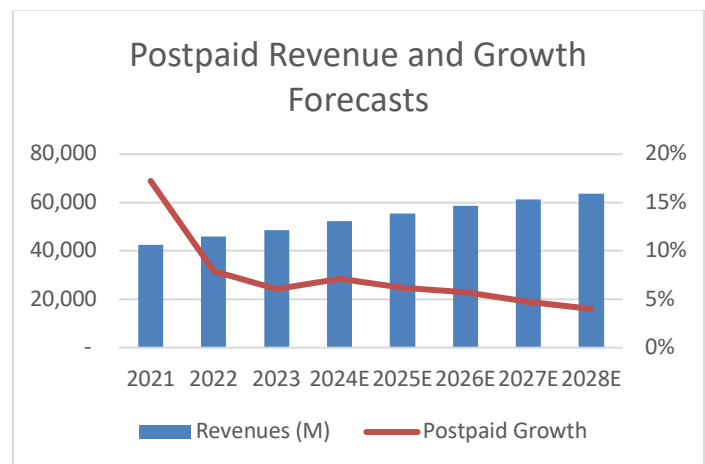


Source: T-Mobile 10-K

T-Mobile's revenues are all earned in the United States, including Puerto Rico and the U.S. Virgin Islands. The firm's share structure is unique, however. Their majority shareholder (50.7%, \$131b) is Deutsche Telekom, a German telecommunications company that is Europe's largest telecom provider by revenue. The firm also has a major strategic partner in SoftBank Capital Partners (7.4%,

\$19b), which is a Japanese investment firm focused on technology. Deutsche Telekom has voting control of the firm, which includes voting control over shares owned by SoftBank through a voting proxy. These institutions are beneficial to T-Mobile, as they provide stability and aid long-term strategic planning. However, the concentrated voting control means the firm will go as Deutsche Telekom says. Deutsche Telekom allows T-Mobile US to operate with its own executive team and organizational structure but maintains a large presence on T-Mobile's board (7/14 members).

Postpaid Revenues

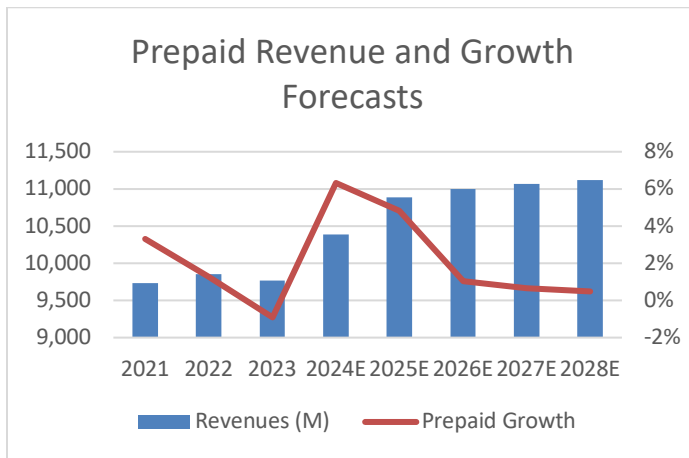


Source: T-Mobile 10-K and HF Estimates

Postpaid customers (98.0m) made up 77% (\$48.7b) of T-Mobile's service revenues in 2023. The key difference between postpaid and prepaid plans is when the billing occurs. Postpaid plans are more expensive, but include premium features such as higher priority data, international roaming (connecting to other available networks), and a Netflix subscription. The wireless carrier market in the United States is nearing saturation, which means T-Mobile will have to take market share from peers to grow faster than population growth. We believe the firm is set up well to do this through its acquisitions of lower-tier providers (such as US Cellular, deal projected to close mid 2025), and its best-in-class 5G networking attracting customers to switch providers. We are bullish on the firm's ability to gain customers in new areas, as their 5G network has the best reach amongst competitors. This will allow them to pick up customers in rural areas who may not have been serviced in the past. The T-Mobile for Business Brand is also housed in this segment, which is where the firm sells phone plans to businesses, as well as connectivity solutions for AI, cloud computing, internet of

things (IoT), etc. Due to these reasons, we forecast the segment to grow by a CAGR of 5.5% through 2028, which tracks slightly above consensus estimates.

Prepaid Revenues



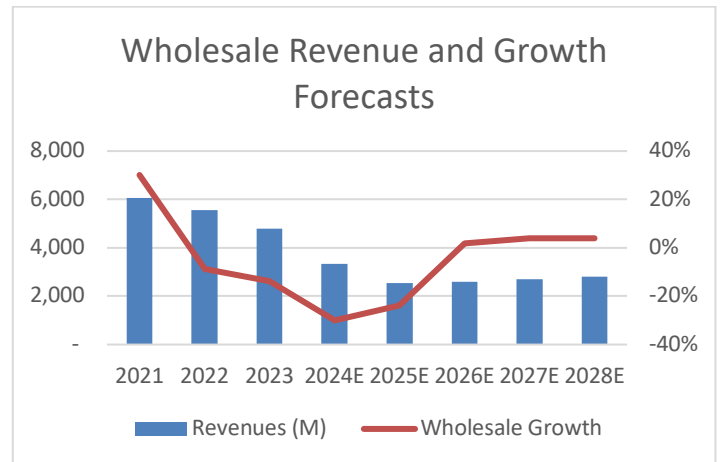
Source: T-Mobile 10-K and HF Estimates

Prepaid customers (21.6m) made up 15% (\$9.8b) of T-Mobile's service revenues in 2023⁴. T-Mobile serves these customers through both its T-Mobile and Metro by T-Mobile brands. Prepaid plans differ from postpaid plans by offering less perks and worse data signal/priority but are significantly cheaper. Prepaid plans allow T-Mobile to expand its target market to include lower income consumers. The firm saw a 3.5 million increase in prepaid customers in Q2 2024, due to its acquisition of Ka'ena Corporation, which owns wireless brands including Mint Mobile and Ultra Mobile. The firm is also poised to gain around 450k customers from its potential acquisition of US Cellular's wireless operations. Outside of growing its prepaid customer base, this segment provides lower growth opportunities to the firm. Prepaid plans are cheaper in nature, which provides less average revenue per user (ARPU) compared to postpaid. We anticipate the firm will maintain this segment as status quo and utilize the acquisitions as its growth plan. In an ideal world, some prepaid customers would make the switch to postpaid, but we anticipate that would take a change in income level or consumer preference in the long-term. Due to these reasons, we forecast the segment to grow by a CAGR of 2.3% through 2028, with the major growth years in 2024

and 2025 (Ka'ena, US Cellular), which is in line with consensus estimates.

Wholesale Revenues

Wholesale customers made up 8% (\$4.8b) of T-Mobile's service revenues in 2023⁴. This segment earns revenues by entering commercial agreements that allow other companies to sell services utilizing T-Mobile's network. The segment is due for negative revenue growth, as the firm's acquisition of Ka'ena will eliminate a wholesale partner, which is offset by the gains in prepaid revenue. The segment is also due for negative revenue growth as the migration of legacy TracFone off T-Mobile's network to Verizon, as well as Dish's migration of customers from T-Mobile's network to its standalone network. For these reasons, we forecast the segment to grow by a CAGR of -8.4% per year, which is in line with consensus estimates.

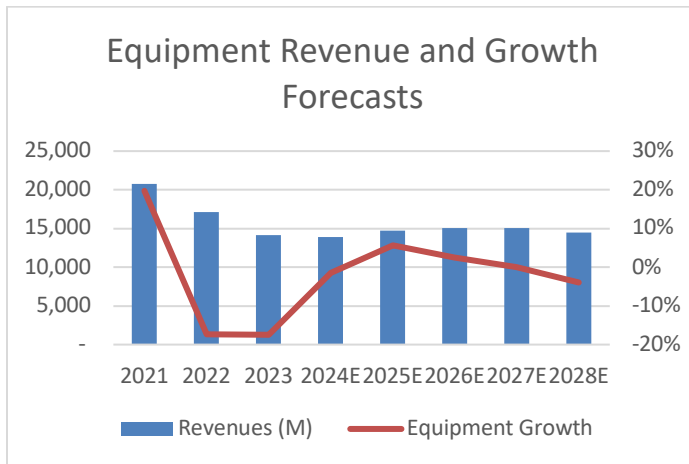


Source: T-Mobile 10-K and HF Estimates

Equipment Revenues

T-Mobile's equipment revenues come from the sales or leases of mobile communication devices and accessories, such as phones and tablets. Customers can purchase devices outright or over an installment period of typically 24 months, using an equipment installment plan (EIP)⁴. The firm's sales in the segment have decreased in recent years as customers shift away from purchasing a phone every single year. Fewer major hardware developments for smartphones and longer device lifespans have contributed to less of a need for upgrading. Due to this, the segment has seen negative revenue growth. We anticipate a bump up in 2025 as AI becomes more integrated in devices such as the iPhone. However, we see minimal growth prospects in the segment as more

consumers become content with using phones for multiple years or buy directly from phone manufacturers such as Apple and Samsung. For these reasons, we forecast the segment to grow by a CAGR of 0.5% through 2028, which is in line with consensus.



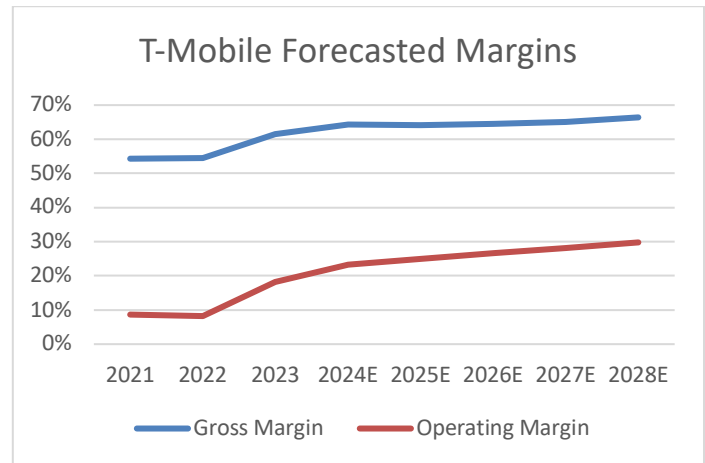
Source: T-Mobile 10-K and HF Estimates

For T-Mobile's final segment, Other Revenues, which include interest income and other miscellaneous forms of income, we projected the segment to grow by a CAGR 13.2% which matches consensus.

Cost Structure Analysis

T-Mobile saw a major leap in its margins in 2023, due to a couple reasons. The firm continued to realize synergies from its merger with Sprint, which helped reduce costs. Merger-related costs dropped from \$5 billion in 2022 to \$1 billion in 2023. The firm incurred all costs of the merger prior to Q3 2024. T-Mobile has also performed well when it comes to churn and hit a firm record 0.87% of postpaid churn in 2023, which it is on track to beat in 2024. Add in revenue growth for postpaid customers, and there is a strong case for continued margin expansion. We believe T-Mobile will be able to capitalize on these trends and continue them into the future. As the firm continues to acquire other companies, the firm will be able to increase operational efficiency through merger synergies. We did not model any future acquisition (US Cellular, Metronet, etc.) into our forecast, which may slow margin growth. Despite this, we still believe T-Mobile's core business is improving operationally and is set up well to become more profitable in the future. We forecast gross margin to grow

by a CAGR of 1.5% and operating margin to grow by a CAGR of 10.4% through 2028.



Source: T-Mobile 10-K and HF Estimates

How T-Mobile Makes Money

T-Mobile earns revenue by selling wireless communications services to consumers (postpaid and prepaid), wholesale to other firms, and equipment sales. T-Mobile has numerous different plans and promotions to target consumers ranging from individuals to families. Postpaid plans range from its cheapest level of \$50/month for one phone line, to \$270/month for five phone lines and the firm's highest level of perks and benefits. Prepaid plans range from \$40/month for one line to \$150/month for four lines. As you go up in amount of phone lines, T-Mobile discounts more and more in cost per phone. The firm also offers promotions for military, veterans, first responders, and 55+ in its postpaid segment. In its equipment sales segment, the firm sells phones through various promotions including EIPs, outright purchases, and leases. The firm is also growing its home internet business through its 5G wireless home internet (\$50/month) and potential acquisition of Metronet, an internet service provider that offers residential fiber internet.

Target Market

T-Mobile's marketing strategies have targeted a select group of people. There are a few key tenants of T-Mobile's target market: millennials, tech-savvy consumers, and rural consumers. The firm's brand appeals to younger and tech-savvy people who are budget conscious. T-Mobile has also won significant share amongst rural and smaller markets as it leads the 5G network revolution. We anticipate the firm will expand upon its target audience to

become more generalist. In the past, Verizon was known as the firm with the best service, and now that T-Mobile is the leader in 5G, TMUS has another selling point to general consumers that they have the best wireless solutions.

Firm Differentiation

T-Mobile's differentiated itself from peers through its Un-carrier strategy, which it started in 2013. The initiative focuses on transparent pricing and eliminates contracts, flexible and unlimited data plans, and other consumer-centric changes. The Un-carrier campaign and business model changes have a significant boost to the firm, as it has grown its total customer base from 46 million to 120 million in 2023. The firm also differentiates itself from peers by its 5G network which leads competitors in availability and average download speed. The availability metric below is not a geographical availability, but rather the proportion of time users with a 5G device and 5G subscription had an active 5G connection.

Carrier	5G Availability	5G Download Speed	5G % of US Population Covered
T-Mobile (TMUS)	67.4%	204.9 Mbps	98.0%
Verizon (VZ)	8.7%	135.3 Mbps	60.0%
AT&T (T)	13.8%	123.5 Mbps	90.1%

Source: Opensignal

Business Model Sustainability

T-Mobile's consumer-centric focus has allowed the firm to see significant growth over the past decade. Its M&A activity has also allowed the firm to grow its customer base and solidify its position as a top wireless carrier. The firm's customer first approach has led it to have record low levels of churn, which is key as the firm looks to grow its 5G abilities and infrastructure for future developments in AI, cloud computing etc. The firm is reliant on a limited number of major suppliers for network equipment, which include Ericsson and Nokia. As suppliers diminish, their bargaining power increases, as T-Mobile faces supplier concentration. To combat this, T-Mobile enters long-term contracts with its suppliers to help stabilize pricing and supply. The number one threat of T-Mobile's business model is the numerous alternatives for consumers, such as AT&T and Verizon. T-Mobile has combatted this by scooping up competitors such as Sprint, Ka'Ena, US Cellular

(pending). Their Un-carrier strategy and top tier 5G network has established T-Mobile's strong positioning as well. Looking forward, it will be key for T-Mobile to continue investments in increasing its wireless capabilities and expanding upon its first-mover advantage in 5G.

Debt Maturity Analysis

Debt is a key function of T-Mobile and the broader telecommunications industry. Telco firms need debt to finance high levels of capital expenditures as they build extensive network infrastructure, acquire spectrum licenses, and invest in new technologies. The firm has also utilized debt to grow through M&A activity. The firm has already paid off all debt obligations in 2024 and has an average of around \$5 billion to pay per year from 2025-2028. In 2023, their operating cash flow was \$18.6 billion, and we expect that to grow by a CAGR of 9.1% through 2028. This should allow the firm to comfortably deal with short-term debt obligations. In 2028, the expense ticks up to \$11.3b, and we anticipate the firm will issue more debt to take off some of the payment burden, or refinance to push out the maturity. The firm has a target leverage ratio of 2.5x, which allows the firm to maintain flexibility for infrastructure expansion and AI initiatives.

Five-Year Debt Maturity Schedule

Fiscal Year	Payment (\$mil)
2024	\$0
2025	4,760
2026	5,500
2027	4,500
2028	11,252
Thereafter	53,549
Total	\$79,561

Source: FactSet

ESG Analysis

T-Mobile's ESG rating ranks it in the top half of firms in the telecommunication services business. The company achieved 100% renewable electricity usage in 2021 and is committed to achieving net-zero emissions across its carbon footprint by 2040. From a social perspective, the firm is committed to DEI initiatives to expand the perspectives of its workforce. In terms of governance, the firm's board has a significant presence from Deutsche Telekom. We do not view this as a massive risk but make

note that foreign control could affect future initiatives from the firm.

Firm	ESG Rating
T-Mobile	23.0 (medium risk)
Verizon	19.3 (low risk)
AT&T	22.1 (medium risk)
Charter	23.7 (medium risk)
Liberty Broadband	18.6 (low risk)
Lumen Technologies	27.9 (medium risk)
Frontier Comm	29.9 (medium risk)

Source: Morningstar Sustainalytics

RECENT DEVELOPMENTS

Recent Earnings Announcement

T-Mobile announced their Q3 2024 earnings on October 23, 2024. The firm beat expectations for EPS (\$2.61 vs. \$2.43), net income (\$3.1b vs. \$2.8b), and revenue (\$20.2b vs. \$20b). T-Mobile also raised its full-year 2024 guidance across the board, including postpaid net customer additions (5.6-5.8m vs. 5.4-5.7m)¹. The firm's results come off the back of industry-leading customer acquisitions and its lowest-ever postpaid churn rate (0.86%). In the quarter, T-Mobile added 865k postpaid customers, and added 415k high-speed internet customers.

T-Mobile's president of marketing, strategy, and products, Mike Katz, stated that Apple's iPhone 16 launch has been good for the firm, and they expect a boost in sales during the holiday season in Q4 2024¹³. T-Mobile's president of technology, Ulf Ewaldsson, cited their leading 5G network as a key reason for customer growth and sustainability. "iPhones work better on our network than with anyone else," arguing their higher peak speeds and better voice quality makes the network the best choice for users.

We are bullish on T-Mobile finishing 2024 strong and continuing these trends into 2025 and beyond. T-Mobile's customer acquisition strategies are paying off, and they are set to build off their momentum as the leader in 5G. Looking ahead to 2025, it will be important to monitor how

T-Mobile's potential acquisitions change its customer base and expenses.

M&A Activity

Telecommunications M&A Activity		
Deal:	Date:	Size/Status:
T-Mobile acquires Sprint	4/1/2020*	\$26b – completed
T-Mobile acquires Ka'Ena Corp. (Mint Mobile)	5/1/2024*	\$1.35b – completed
T-Mobile and EQT to acquire Lumos for JV	4/25/2024	\$950m – 2025 expected close
T-Mobile announces US Cellular acquisition	5/28/2024	\$4.4b – 2025 expected close
T-Mobile announces JV with KKR for Metronet	7/24/2024	\$4.9b – 2025 expected close
Verizon announces Frontier Communications acquisition	9/5/2024	\$20b – Q1 2026 expected close
Charter announces Liberty Broadband acquisition	11/13/2024	\$12.8b – 2027 expected close

Source: Bloomberg; * denotes completion date

Unlike other industries, M&A activity in the telecommunications space has been plentiful. The deals reflect telcos pursuing customer growth/scale and expanding fiber networks. There is a race to be the leader in all things connectivity, including both at home internet/fiber and wireless capabilities. The firm that can cohesively bundle those together will be due for large growth and lower consumer churn. T-Mobile is spearheading the charge and has been very active in M&A. From a customer growth perspective, the firm has grown significantly through its Sprint acquisition. T-Mobile's Sprint merger has been revolutionary for the firm, as it increased their customer base significantly (for postpaid, T-Mobile was required to spin off Sprint's prepaid business for regulatory purposes). This acquisition gave momentum to T-Mobile as it began to roll out 5G in 2020.

Since 2020, T-Mobile has worked to integrate Sprint into its firm and realize synergies. Now that all merger-related costs from Sprint are taken care of, the firm has gone on an acquisition spree this year. From a customer acquisition perspective, the firm acquired Ka'Ena Corporation (Mint

Mobile) which added approximately 3.5 million prepaid customers. The firm is also poised to add nearly four million postpaid subscribers and 500k prepaid customers from US Cellular (the fifth largest wireless carrier in the US). Assuming this passes through antitrust regulatory hurdles, we believe this would be great deal for the firm. T-Mobile will continue its market share growth, especially in underserved rural areas, and expand upon its network capabilities. T-Mobile would take over the US Cellular's wireless operations and customer base, but not its cell towers. US Cellular plans to lease 30% of their towers to T-Mobile and maintain ownership over the other 70%. T-Mobile is primarily interested in US Cellular's customer base, which we believe makes sense as the firm can expand its reach without the headache of maintaining a larger tower network.

The other area of focus for T-Mobile and peers in the M&A space is fiber. The purpose of adding fiber assets is to enhance network capabilities and expand service offerings. Fiber networks provide high-speed internet that can help support the growing demand for data-intensive applications such as cloud computing, AI, IoT, etc. Verizon made the largest splash in this space with its deal to acquire Frontier Communications, which is one of the top fiber providers in the United States. We like to see T-Mobile's acquisitions of Metronet and Lumos, as we believe they are currently trailing peers in the space. In the future, we see a world where T-Mobile can offer fiber or 5G internet to customers who also subscribe to phone plans, which would increase revenues per customers and lower churn.

Another recent development in the space was Charter's acquisition of Liberty Broadband. Charter agreed to acquire Liberty Broadband in an all-stock transaction, which simplifies the corporate structure between the two (Liberty Broadband has a 26% stake in Charter). Liberty and Charter operate in the broadband industry, as well as the media arena with assets such as Spectrum TV. The broadband and cable industries are currently facing pressures from the rise of fiber and 5G internet, as well as the crumbling of cable TV.

AI Developments

On September 18, 2024, T-Mobile announced a partnership with OpenAI to develop IntentCX, an AI-driven customer experience platform set to release in 2025. The multi-year partnership aims to combine T-Mobile's

experience in customer relationships with OpenAI's technology. The goal of IntentCX is to reduce customer service calls by 75% compared to 2022 levels and have 100% of phone upgrades and 50% of new customer activations done digitally. Our take on the partnership is that T-Mobile is aiming to cut corporate overhead costs by outsourcing frequent problems to be solved digitally. This should cut costs and improve margins.

The firm also announced a partnership with NVIDIA, Nokia, and Ericsson to establish an AI-RAN (Radio Access Network) Innovation Center in Bellevue, Washington to improve network capabilities. By leveraging AI, the collaboration will be able to improve wireless connectivity performance, reliability, and efficiency by optimizing real-time capacity. This initiative positions T-Mobile partners to continue its lead in 5G and positions the firm to lay the foundation for 6G.

Although both partnerships may not have an immediate impact on T-Mobile's bottom line, we are optimistic about the vision they are setting for the future of the firm. By expanding AI capabilities, they are set to capitalize on changes in technology and establish themselves as the top firm in wireless communications services.

INDUSTRY TRENDS

Expanding Connectivity

Telecommunications firms are working to expand connectivity in multiple ways. They are growing 5G networks across the country, as well as investing in fiber solutions. Telcos are already working towards 6G networks, which would offer even faster speeds and capabilities for data-intensive applications. Most experts anticipate a rollout of 6G in the late 2020s to early 2030s. Firms are also investing in infrastructure improvements for new solutions such as edge computing and open RAN, which both aim to optimize network performance and efficiency. Not only are telecommunication companies improving upon existing wireless services, but these efforts have also helped close the digital divide. Rural areas have gained more access to the internet and are a target focus for T-Mobile (as seen through its US Cellular acquisition). We believe T-Mobile's lead in 5G and partnerships in new technologies set it up well to capitalize on innovations in a rapidly changing tech environment.

Edge Computing / AI

Edge computing encompasses processing data is processed on devices at a networks “edge” rather than transmitting data physically farther to centralized data centers¹⁶. By doing this, compute and storage functions are closer to where the data is generated, which in turn should improve network quality and reduce latency for applications such as augmented and virtual reality, online gaming, and autonomous vehicles. Edge computing utilizes devices ranging from routers to IoT gateways to AI-driven sensors, which enables real-time analytics and automation across industries. T-Mobile is embracing edge computing by integrating its 5G network with advanced cloud computing services, such as a partnership Google Cloud. We believe this sets T-Mobile up well to help firms with edge computing solutions as the world enters an AI/data digital transformation.

Internet of Things (IoT)

Internet of Things is a key driver of growth in the telecom industry¹⁶. It revolves around a network of interconnected devices that communicate and exchange data over the internet. It affects various sectors such as transportation (connected vehicles), healthcare (remote monitoring), agriculture (precision farming), manufacturing (smart factories), home automation (smart appliances), etc. T-Mobile can provide IoT services through its advanced 5G wireless network, which provides a new revenue stream for the company. Growing capabilities in this arena will be a key factor for the firm moving forward as they look to diversify their business beyond phone subscriptions and home internet. We believe T-Mobile is set up well to capitalize on IoT tech developments in the rapidly changing AI and digital environment.

MARKETS AND COMPETITION

Major Players

Firm	Mkt. Cap	P/E (TTM)	Revenue (TTM)
T-Mobile (TMUS)	\$279.5B	23.5	\$80.0B
Verizon (VZ)	173.2B	19.4	134.2B
AT&T (T)	160.0B	17.9	122.0B
Comcast (CMCSA)	168.0B	11.3	123.0B
Charter Comm. (CHTR)	64.7B	10.2	54.9B

Firm	Mkt. Cap	P/E (TTM)	Revenue (TTM)
Liberty Broadband (LBRDK)	13.2B	14.1	1.0B
Lumen Technologies (LUMN)	9.3B	-	13.3B
Frontier Comm. (FYBR)	8.6B	-	5.9B

Source: FactSet

Wireless Competitors:

T-Mobile has emerged as a dominate player in the telecom industry. It leads peers in terms of market capitalization, despite having lower revenue than its closest competitors, Verizon and AT&T. T-Mobile also has the highest P/E ratio among peers, which suggest the market has higher expectations for growth than competitors, which we agree with. Traditional telecom giants AT&T and Verizon still produce more revenue than T-Mobile, but the two trail T-Mobile in the 5G market. Their lack of success in 5G gives more room for T-Mobile to grab market share, which it has done through acquisitions and improving wireless capabilities. We consider T-Mobile to be the market leader in wireless and believe the firm has more capability to grow into the future than both Verizon and AT&T.

Cable and Broadband Providers:

Comcast leads the way amongst this group with the largest market cap and revenue, which is comparable to AT&T. The company has its own set of issues with cord-cutting, as consumers flock from traditional cable TV to streaming. The firm announced on November 20, 2024, that they plan to spin off much of their cable TV business (all assets besides NBC broadcast network and Peacock)¹. Its streaming service, Peacock, is still operating at a loss and broadband growth is losing momentum due to competition from wireless carriers such as T-Mobile.

Charter Communications is another significant player in this sector. The firm also has a similar set of issues to Comcast, with cord-cutters hurting its business. The firm has seen a significant drop in broadband subscribers, due to the rise of wireless providers, and the end of the Affordable Connectivity Program (ACP), which provided subsidies for internet services to low-income households¹.

Smaller Players:

This portion of the market includes more specialized companies. Frontier Communications focuses on

providing high-speed internet primarily through its fiber network, while Liberty Broadband also provides broadband internet, including fiber. Both firms have been acquired by competitors in the broadband space. Verizon plans to purchase Frontier, and Charter plans to purchase Liberty. The deals emphasize how major players are attempting to do all they can to expand their offerings, particularly in high-speed fiber. Lumen Technologies has been on a wild ride and is struggling due to high debt levels and a declining legacy business (traditional landline phones). Lumen is in a dangerous financial state as it still relies on landline phones for a substantial amount of revenue and nearly \$21 billion in debt (Operating cash flow of \$2b in 2023). However, they landed agreements with Microsoft and others to build private networks for AI purposes. Small and/or struggling telecom companies are on the menu for market leaders such as T-Mobile, which is part of the reason we have seen a flurry of M&A activity in the segment.

Structure & Stability

A key driver of the industry is consolidation, as T-Mobile and other large firms are scooping up wireless customer bases and broadband fiber businesses. The lines of the industry have been blurred. As broadband/cable providers have lost business, wireless providers such as T-Mobile have entered the broadband internet market through fiber acquisitions and the introduction of wireless home-internet made possible through 5G. The telecom market is currently in a transition phase, and we believe T-Mobile is set up best to capitalize on the opportunity as the leader in 5G and actively pursuing new ways to grow.

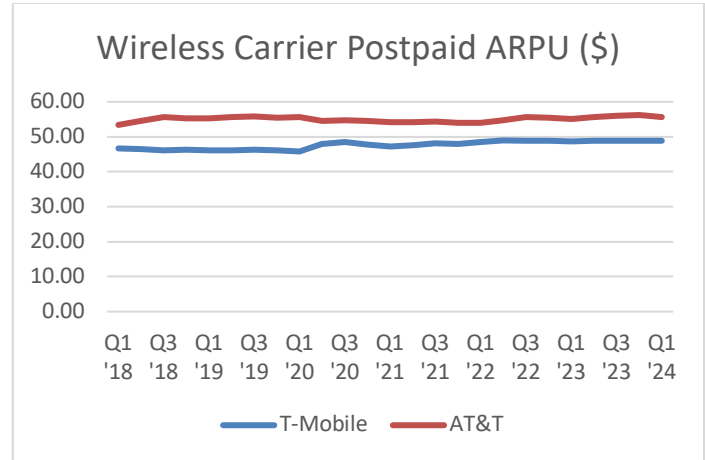
Risk of Disruption/Substitution

With the technology sector and telecom market rapidly changing, firms face major pressure to adapt to new technology. The 5G development shook the market like a snow globe, and T-Mobile emerged on top. We believe the firm is capable of weathering any storm technology throws its way. Our outlook for the firm is that their lead in 5G, growth focus, and cutting-edge initiatives will set it up well for the eventual 6G market and any AI developments. From a wireless phone plan perspective, we believe that T-Mobile's customer-first nature will allow it to maintain low

churn levels and adapt to any competitive pressure on prices or tech.

Peer Comparisons

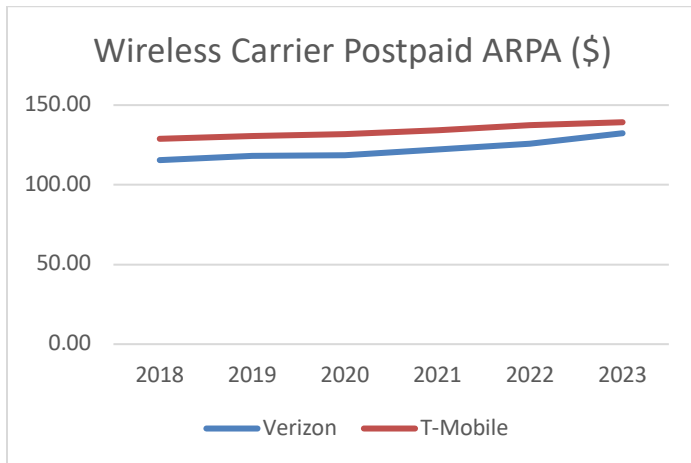
ARPU/ARPA:



Source: Statista

ARPU is a key metric in the wireless telecommunication space, and T-Mobile has maintained a steady gap on AT&T in recent years. The firm offers more competitive pricing to attract and retain customers, which is the reason why they are not surpassing AT&T. T-Mobile's flexible, customer-friendly plans are part of its differentiation plan and why the firm has been to gain market share. Verizon does not report ARPU, but rather average revenue per account (ARPA). T-Mobile beats Verizon on this front, but the gap is shrinking. We still believe the metric is a positive for the firm, as it displays a strong ability to grow revenue, given the number of accounts in the denominator has grown steadily. Looking forward, we anticipate T-Mobile to continue to make incremental moves in revenue per

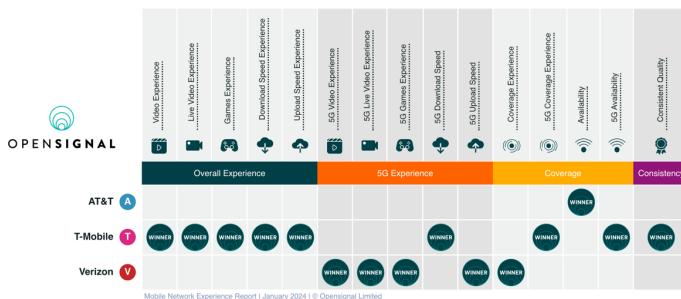
account, even as it adds accounts who join on acquisition discounts.



Source: Statista

Connectivity Ratings:

Mobile Experience Awards
JANUARY 2024, USA REPORT

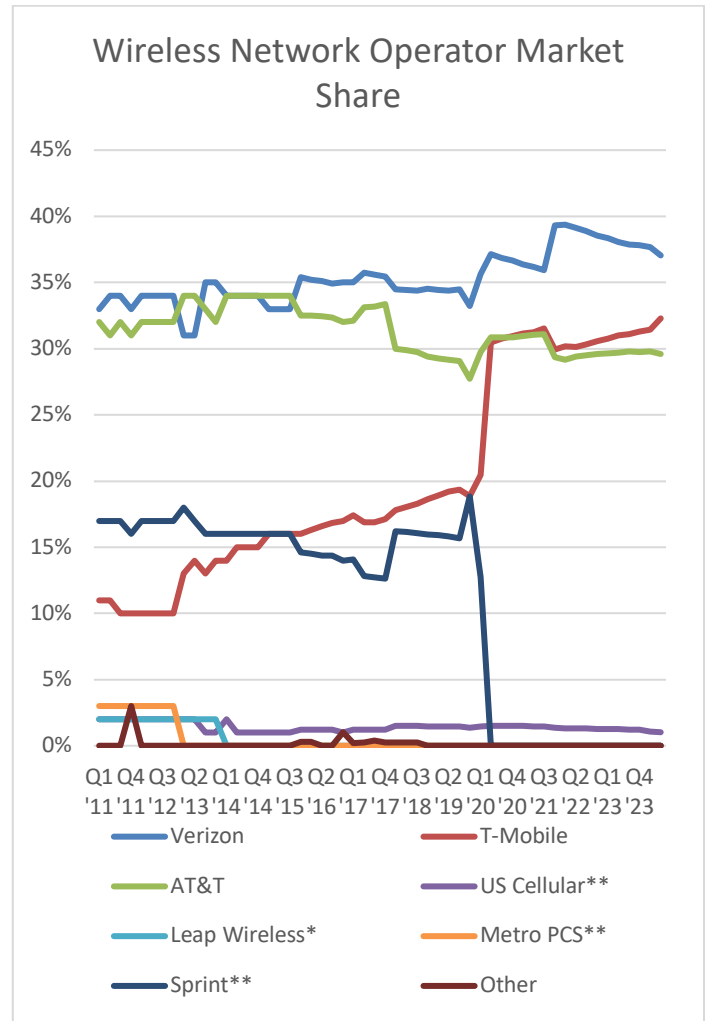


Source: OpenSignal

According to research conducted by OpenSignal, T-Mobile's tech is far and away the leader. It boasts a significantly faster 5G download speed compared to Verizon and AT&T (204.9Mbps vs. 135.3 Mbps and 123.5Mbps). The firm slightly trails Verizon in terms of peak 5G quality for gaming, videos, and upload speed. However, the firm makes up for it with the best overall numbers, its 5G availability (which is where Verizon and AT&T struggle) and overall consistency. Given these metrics, we feel confident that T-Mobile can sustain its advantage in the segment as its weak points are a much closer gap compared to the areas it is lapping the

competition (5G download speed, overall download speed, and 5G availability).

Subscriber Growth/Market Share:

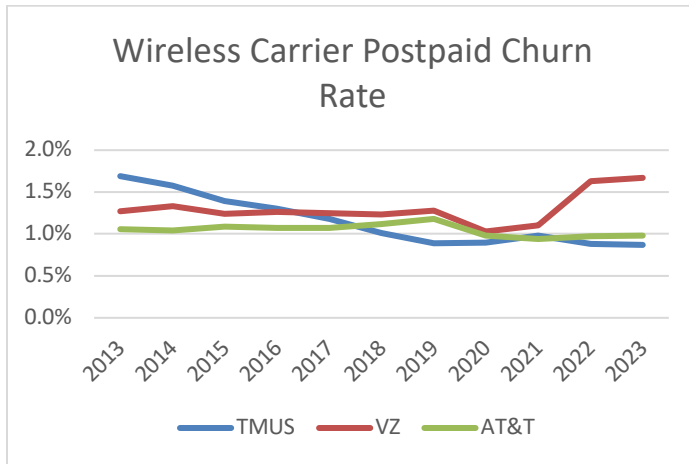


Source: Statista; * acquired by AT&T, ** acquired or to be acquired by TMUS

The chart displays T-Mobile's rise over the past decade-plus. Their acquisition of Sprint was a seismic shift in the market and has allowed the firm to grow market share. The timing came hand in hand with its rollout of 5G, which also contributed to the firm's growing market share. The chart also shows the consolidation done in the industry, as T-Mobile also purchased Metro PCS and plans to purchase US Cellular. Looking forward, we expect T-Mobile keep its

momentum in 5G going and become the largest wireless network operator by market share.

Churn Rate:



Source: Statista

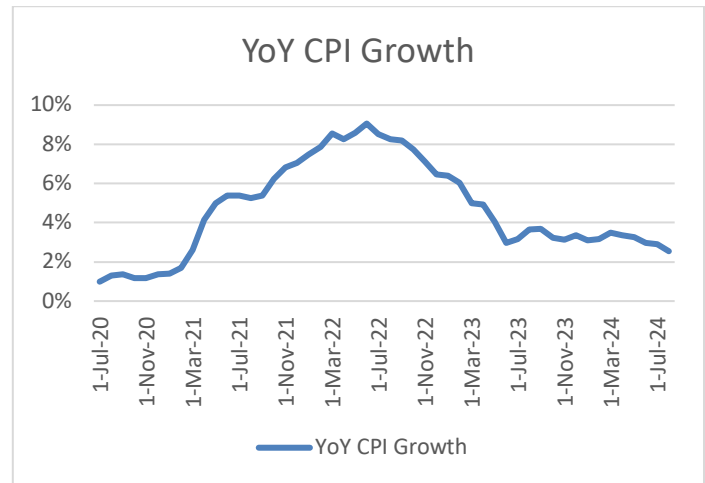
Over the past ten-plus years, T-Mobile has consistently lowered its churn rate. Through 2016, it had the worst rate compared to peers, but has improved its position to best in the market. We believe that the firm's Un-carrier marketing strategy was an important factor in improving its customer loyalty. Moving forward, we expect T-Mobile to maintain a market low churn rate based off its customer-centric policies and 5G network.

ECONOMIC OUTLOOK

Inflation

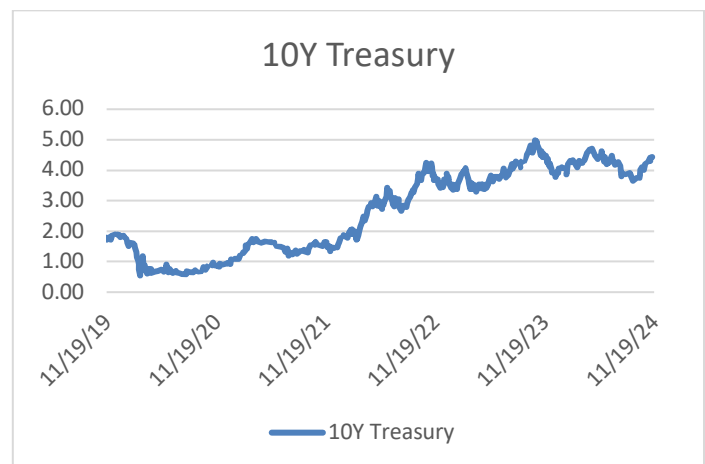
Inflation is a key macroeconomic driver for T-Mobile and the broader telecommunications industry. As inflation rises, telecom firms face increased costs of network maintenance, equipment, and labor. This places pressures on margins and could lead to price increases for consumers which may increase churn rates. In our eyes, the Fed has handled inflation well, and we expect the higher rate environment to continue to decrease inflation. However, newly elected President Donald Trump poses unpredictability to the macroeconomy, particularly if

major tariffs are enacted. This would likely bring back inflationary times in the United States.



Source: Federal Reserve Economic Data (FRED)

Interest Rates



Source: Federal Reserve Economic Data (FRED)

The 10-year Treasury yield and interest rates significantly impact T-Mobile and other telecom companies. Higher rate environments like the one we are currently in, increase borrowing costs for capital-intensive telecommunications businesses. This may slow network expansion and infrastructure environments. T-Mobile has fared well through the rate-hike cycle due to a healthy balance sheet and strong operational growth. With rates set to decline, we anticipate the firm will continue to make significant infrastructure investments to expand upon its advantage in 5G.

VALUATION

Revenue Growth:

We forecasted overall revenue to grow by a CAGR of 3.7% through 2028, which is in line with consensus estimates. The firm's growth should come from customers coming in through acquisitions (although we did not model US Cellular specifically into the equation). We expect the long-term trends of customer growth through consumer-friendly marketing tactics to continue. We also anticipate the growth of home internet through fiber and wireless 5G to diversify T-Mobile's revenue mix beyond phones and devices. The firm is also due for growth from AI and advanced computing initiatives, but we do not expect those to make immediate impacts and consider them longer term projects that set the firm up well for 6G in the 2030s.

Operating Expense Assumptions:

For T-Mobile's operating expenses, we forecasted cost cutting over the next five years. This is seen largely through decreased SG&A expense (26.0% of sales), as we believe the firm will decrease customer service costs through AI (see: partnership with OpenAI). We also see cost of equipment to go down as a percentage of revenues over the period as the firm moves focus away from equipment sales. We straight-lined cost of services as a % of service sales (18.4%), as we believe the firm will be able to maintain the level it achieved in 2023.

Profit Margin Forecasts

We project T-Mobile's gross margin to increase over the next five years but anticipate it staying near its 2023 level (61.57, estimated 66.41% in 2028). We forecast operating margin to take a larger leap as we expect cost cuts in SG&A and other expense categories. We believe margin expansion is possible through their firm-record churn level, customer growth, and continued dominance in the 5G space. However, we do note that lingering potential acquisitions may alter the timeline on T-Mobile's margin growth.

Earnings estimates relative to the consensus:

We expect Meta to out earn its consensus EPS estimates. Our forecast is ahead of consensus, which is likely due to our cost cutting projections. We also expect strong earnings due to T-Mobile's track record of year-over-year improvement the past decade. We realize M&A activity and our share repurchase forecasts may alter EPS projections, but we are still bullish on T-Mobile's ability to out earn Wall Street consensus.

Year	2021	2022	2023	2024E	2025E	2026E
EPS	\$2.42	\$2.07	\$7.02	\$9.41	\$10.70	\$12.84
HF est.				\$9.57	\$11.61	\$13.80
Growth	-9.5%	-14.5%	238.6%	34.1%	13.7%	20.0%

CapEx:

We modeled CapEx to hover in the \$9-10 billion range through 2028. We utilized T-Mobile's actual CapEx spending through the first three quarters of the year and added in an estimate for Q4 to get \$8.8 billion in 2024. Moving forward, management gave minimal guidance besides not expecting huge increases. Due to this, we forecast CapEx growth of 3% per year from 2025 onwards. We believe T-Mobile will continue to have capital expenditure needs to maintain its network infrastructure and expand its capabilities into the future.

Capital Structure:

We forecasted T-Mobile's debt to maintain its percentage of non-cash assets. We expect the firm to hover around its 2.5x leverage target as it continues to utilize debt for M&A activities, infrastructure needs, and expansion into new technologies.

Payout Policy Forecasts:

Given high forecasted cash flow and minimal CapEx growth, we forecasted approximately \$12 billion of share repurchases per year through 2028. This is on par with what T-Mobile is on track to do in 2024. This forecast would have T-Mobile repurchasing approximately 18.40% of its shares over the next five years. We do anticipate our share repurchase estimates may be overdone, as some of the cash will be used for M&A activity. However, we believe T-Mobile's business and balance sheet will be healthy enough for significant share repurchases in the next five years. The same goes for our dividend forecast. We forecasted a \$2.83 annual dividend per share in 2024, which is the exact amount they plan to pay. Moving forward, we forecasted T-Mobile's dividend per share to grow by 12% per year as another usage of a growing cash balance.

Contingent Liabilities:

We did not forecast any litigation liabilities.

Valuation Models:

DCF:

Our DCF and economic profit model yield a price of \$303 per share, representing an upside of 28.7%. Key drivers of our DCF projection include a 2.5% growth of NOPLAT, our projected WACC of 6.62%, and our five-year monthly beta of 0.69. We believe the 2.5% growth of NOPLAT is justified given it is in line with typical US GDP growth, and the firm does not operate outside of the United States. We believe the DCF model is the best suited match for T-Mobile given it projects cash flows and the specific story we expect to play out. T-Mobile's growth prospects and beating other telcos to the punch in 5G unnecessarily punishes the firm in our relative valuation model. The firm's lack of a historical dividend makes the DDM less reliable, as we are taking an educated guess on their dividend increases.

DDM:

Our DDM model yielded a price of \$266, which represents an upside of 13.3%. Key inputs include a 2.50% CV growth of EPS, which we believe is fair for a telecommunications firm, 32.1% CV year ROE, and a 7.7% cost of equity. We place less weight on this model due to T-Mobile's historical lack of a dividend, and minimal guidance from management on future dividend plans.

Relative Valuation:

Our P/E relative value model based on 2025 EPS values T-Mobile at \$112, roughly half of T-Mobile's current price. We believe this valuation method does not make sense for the firm, as it is punished for having healthy operations, better growth prospects, and an established lead in 5G. On top of this, the firm's P/E ratio trails the S&P 500's P/E ratio. We believe this indicates the market is undervaluing T-Mobile as it grows its customer base, expands into new markets, and works on initiatives in new developing technology such as AI.

Sensitivity Analysis:

		CV Growth of NOPLAT							
		303.01	1.75%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%
WACC	5.87%	334.82	350.60	368.56	389.20	413.14	441.25	474.73	
	6.12%	310.60	324.04	339.23	356.51	376.35	399.39	426.43	
	6.37%	289.00	300.52	313.44	328.04	344.65	363.72	385.86	
	6.62%	269.61	279.54	290.61	303.01	317.03	332.98	351.30	
	6.87%	252.11	260.71	270.23	280.85	292.76	306.20	321.50	
	7.12%	236.24	243.71	251.95	261.08	271.25	282.66	295.55	
	7.37%	221.78	228.30	235.45	243.33	252.07	261.81	272.73	

The CV growth of NOPLAT has the largest effect on our DCF's share value. We believe the 2.50% rate is justified given T-Mobile's steady consistent revenue growth and

defensive business model. We believe the firm will be able to maintain this as it enters new markets. T-Mobile's WACC also has a significant impact on our DCF share price, which is largely due to the firm's low beta.

KEYS TO MONITOR

As Alphabet enters the end of 2024 and into 2025, we will keep our eyes on how the firm performs in Q4, acquisition and JV statuses, and developments in tech that require the application of T-Mobile services.

Key Drivers:

We expect the firm to continue to capitalize on the advantage it built for itself in 5G, as well as its customer acquisition tactics. We believe the firm's potential mergers will serve the company well as they look for new ways to grow its customer base and diversify its revenue streams. We are bullish on their partnerships with OpenAI, NVIDIA, etc., and like the fact the firm is on the cutting edge of technology. Serving high-growth tech firms in the AI boom will also be a key to monitor for T-Mobile.

Key Risks:

T-Mobile's Deutsche Telekom ownership presents a potential obstacle if there were to be disagreements between TMUS management and DT. The two key other risks to monitor are if T-Mobile's M&A activity fails, and if they lose steam in the 5G race. If the deals fall through, the firm risks slowing customer growth, as well as falling behind in fiber internet. We believe the deals will go through, however. Losing its advantage in 5G would be detrimental to T-Mobile, who is seeking to grow its customer base to those who want the fastest speeds. If other carriers catch up, T-Mobile loses that marketing angle. However, we believe the firm is one of the most innovative in the telecom industry and will continue to improve its advantage in 5G and other areas.

Conclusion:

We believe that T-Mobile is a strong investment opportunity. The firm has grown significantly over the past decade, through both natural growth and acquisitions. T-Mobile is at the forefront of change in the telecommunications industry, and we expect the firm to continue to be a gamechanger in the space. We believe in future years T-Mobile is set up well to capitalize on movements in AI and changes in home internet. These

opportunities offer ways for the firm to diversify their business beyond their growing wireless phone connectivity business. Due to these reasons, we give the firm a **BUY** rating, with a target price of \$303, representing an upside of 28.7%.

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T-Mobile

Revenue Decomposition (in millions), except ARPU

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Postpaid Phone Customers	70.26	72.83	75.94	78.97	82.13	85.42	88.83	92.39
growth	5.5%	3.7%	4.3%	4.0%	4.0%	4.0%	4.0%	4.0%
Postpaid ARPU	50.48	52.54	53.44	55.05	56.22	57.14	57.54	57.54
growth	11.2%	4.1%	1.7%	3.0%	2.1%	1.6%	0.7%	0.0%
Postpaid revenues	42,562	45,919	48,692	52,169	55,408	58,567	61,337	63,790
growth	17.2%	7.9%	6.0%	7.1%	6.2%	5.7%	4.7%	4.0%
Prepaid customers	21.06	21.37	21.65	25.54	26.06	26.58	27.11	27.65
growth	1.7%	1.5%	1.3%	18.0%	2.0%	2.0%	2.0%	2.0%
Prepaid ARPU	38.52	38.45	37.60	33.88	34.82	34.48	34.02	33.52
growth	1.6%	-0.2%	-2.2%	-9.9%	2.8%	-1.0%	-1.3%	-1.5%
Prepaid revenues	9,733	9,857	9,767	10,384	10,886	10,997	11,067	11,123
growth	3.3%	1.3%	-0.9%	6.3%	4.8%	1.0%	0.6%	0.5%
Wholesale and other service revenues	6,074	5,547	4,782	3,347	2,548	2,593	2,697	2,805
growth	30.1%	-8.7%	-13.8%	-30.0%	-23.9%	1.8%	4.0%	4.0%
Total service revenues	58,369	61,323	63,241	65,900	68,842	72,157	75,101	77,718
growth	15.8%	5.1%	3.1%	4.2%	4.5%	4.8%	4.1%	3.5%
Equipment revenues	20,727	17,130	14,138	13,926	14,711	15,079	15,090	14,486
growth	19.7%	-17.4%	-17.5%	-1.5%	5.6%	2.5%	0.1%	-4.0%
Other revenues	1,022	1,118	1,179	1,002	1,154	1,280	1,501	2,192
growth	48.1%	9.4%	5.5%	-15.0%	15.2%	10.9%	17.3%	46.1%
Total revenues	80,118	79,571	78,558	80,828	84,708	88,516	91,692	94,397
growth	17.1%	-0.7%	-1.3%	2.9%	4.8%	4.5%	3.6%	2.9%

T-Mobile
Income Statement (in millions)

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Revenues								
Postpaid revenues	42,562	45,919	48,692	52,169	55,408	58,567	61,337	63,790
Prepaid revenues	9,733	9,857	9,767	10,384	10,886	10,997	11,067	11,123
Wholesale and other service revenues	6,074	5,547	4,782	3,347	2,548	2,593	2,697	2,805
Total service revenues	58,369	61,323	63,241	65,900	68,842	72,157	75,101	77,718
Equipment revenues	20,727	17,130	14,138	13,926	14,711	15,079	15,090	14,486
Other revenues	1,022	1,118	1,179	1,002	1,154	1,280	1,501	2,192
Total revenues	80,118	79,571	78,558	80,828	84,708	88,516	91,692	94,397
Operating expenses								
Cost of services, exclusive of D&A	13,934	14,666	11,655	12,145	12,688	13,299	13,841	14,323
Cost of equipment sales, exclusive of D&A	22,671	21,540	18,533	16,711	17,654	18,095	18,108	17,383
Selling, general and administrative	20,238	21,607	21,311	21,015	22,024	23,014	23,840	24,543
Impairment expense	-	477	-	-	-	-	-	-
(Gain) loss on disposal group held for sale	-	1,087	(25)	-	-	-	-	-
Depreciation and amortization	16,383	13,651	12,818	12,130	11,139	10,525	10,177	10,018
Total operating expenses	73,226	73,028	64,292	62,002	63,504	64,933	65,966	66,268
Operating income	6,892	6,543	14,266	18,827	21,203	23,583	25,726	28,128
Other expense, net								
Interest expense, net	(3,189)	(3,364)	(3,335)	(4,033)	(3,954)	(3,922)	(3,916)	(3,928)
Other income (expense), net	(199)	(33)	68	71	74	77	81	84
Total other expense, net	(3,541)	(3,397)	(3,267)	(3,962)	(3,880)	(3,845)	(3,836)	(3,844)
Income before income taxes	3,351	3,146	10,999	14,865	17,324	19,738	21,890	24,284
Income tax expense	(327)	(556)	(2,682)	(3,627)	(4,227)	(4,816)	(5,341)	(5,925)
Net income	3,024	2,590	8,317	11,238	13,097	14,922	16,549	18,359
Basic Earnings per Share (EPS)	2.42	2.07	7.02	9.57	11.61	13.80	15.96	18.44
Year end shares outstanding (basic)	1,249	1,234	1,196	1,152	1,104	1,058	1,016	976
Weighted average shares outstanding class (basic)	1,247	1,250	1,185	1,174	1,128	1,081	1,037	996
Annual Dividends per Share	-	-	0.65	2.83	3.52	3.94	4.42	4.95

T-Mobile
Balance Sheet (in millions)

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Assets								
Current assets								
Cash and cash equivalents	6,631	4,507	5,135	4,981	5,295	6,757	9,012	12,254
Accounts receivable	4,167	4,445	4,692	4,828	5,059	5,287	5,476	5,638
Equipment installment plan receivables	4,748	5,123	4,456	4,389	4,637	4,753	4,756	4,566
Inventory	2,567	1,884	1,678	1,726	1,809	1,891	1,959	2,016
Prepaid expenses	746	673	702	722	757	791	819	844
Other current assets	2,005	2,435	2,352	2,454	2,559	2,670	2,785	2,905
Total current assets	20,891	19,067	19,015	19,100	20,116	22,148	24,808	28,223
Property and equipment, net	39,803	42,086	40,432	37,130	35,084	33,925	33,394	33,312
Operating lease right-of-use assets	26,959	28,715	27,135	24,919	23,546	22,768	22,411	22,356
Financing lease right-of-use assets	3,322	3,257	3,270	3,003	2,837	2,744	2,701	2,694
Goodwill	12,188	12,234	12,234	13,015	13,015	13,015	13,015	13,015
Spectrum licenses	92,606	95,798	96,707	97,625	98,551	99,486	100,430	101,383
Other intangible assets, net	4,733	3,508	2,618	1,896	1,326	909	619	448
Equipment installment plan receivables due after one year	2,829	2,546	2,042	2,011	2,125	2,178	2,179	2,092
Other assets	3,232	4,127	4,229	4,412	4,602	4,801	5,008	5,224
Total long-term assets	185,672	192,271	188,667	184,011	181,086	179,824	179,757	180,524
Total assets	206,563	211,338	207,682	203,111	201,202	201,972	204,565	208,747
Liabilities and Stockholders' Equity								
Current liabilities								
Accounts payable and accrued liabilities	11,405	12,275	10,373	10,673	11,185	11,688	12,107	12,464
Short-term debt	3,378	5,164	3,619	3,681	3,865	4,013	4,118	4,164
Deferred revenue	856	780	825	849	890	930	963	991
Short-term operating lease liabilities	3,425	3,512	3,555	3,265	3,085	2,983	2,936	2,929
Short-term financing lease liabilities	1,120	1,161	1,260	1,157	1,093	1,057	1,041	1,038
Other current liabilities	967	1,850	1,296	1,352	1,410	1,471	1,535	1,601
Total current liabilities	23,499	24,742	20,928	20,977	21,528	22,142	22,700	23,187
Long-term debt	67,076	65,301	69,903	68,379	67,612	67,373	67,489	67,814
Long-term debt to affiliates	1,494	1,495	1,496	1,496	1,496	1,496	1,496	1,496
Tower obligations	2,806	3,934	3,777	3,695	3,653	3,640	3,647	3,664
Deferred tax liabilities	10,216	10,884	13,458	15,997	18,533	20,941	23,078	24,855
Operating lease liabilities	25,818	29,855	28,240	25,934	24,505	23,695	23,324	23,267
Financing lease liabilities	1,455	1,370	1,236	1,135	1,073	1,037	1,021	1,018
Other long-term liabilities	5,097	4,101	3,929	4,099	4,275	4,460	4,652	4,853
Total long-term liabilities	113,962	116,940	122,039	120,734	121,147	122,642	124,707	126,967
Total liabilities	137,461	141,682	142,967	141,711	142,674	144,784	147,407	150,155
Stockholders' equity								
Common equity	73,292	73,941	67,705	68,865	68,865	68,865	68,865	68,865
Treasury stock, at cost	(13)	(3,016)	(9,373)	(21,764)	(33,764)	(45,764)	(57,764)	(69,764)
Accumulated other comprehensive loss	(1,365)	(1,046)	(964)	(964)	(964)	(964)	(964)	(964)
Retained earnings	(2,812)	(223)	7,347	15,263	24,391	35,051	47,021	60,455
Total stockholders' equity	69,102	69,656	64,715	61,401	58,528	57,189	57,158	58,593
Total liabilities and stockholders' equity	206,563	211,338	207,682	203,111	201,202	201,972	204,565	208,747

T-Mobile

Historical Cash Flow Statement (in millions)

Fiscal Years Ending Dec. 31	2021	2022	2023
Operating activities			
Net income	3,024	2,590	8,317
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation and amortization	16,383	13,651	12,818
Stock-based compensation expense	540	595	667
Deferred income tax expense	197	492	2,600
Bad debt expense	452	1,026	898
Losses from sales of receivables	15	214	165
Losses on redemption of debt	184	-	-
Impairment expense	-	477	-
Loss on remeasurement of disposal group held for sale	-	377	9
Changes in operating assets and liabilities			
Accounts receivable	(3,225)	(5,158)	(5,038)
Equipment installment plan receivables	(3,141)	(1,184)	170
Inventory	201	744	197
Operating lease right-of-use assets	4,964	5,227	3,721
Other current and long-term assets	(573)	(754)	(358)
Accounts payable and accrued liabilities	549	558	(1,126)
Short- and long-term operating lease liabilities	(5,358)	(2,947)	(3,785)
Other current and long-term liabilities	(531)	459	(839)
Other operating activities, net	236	414	143
Net cash provided by operating activities	13,917	16,781	18,559
Investing activities			
Purchases of property and equipment, including capitalized interest	(12,326)	(13,970)	(9,801)
Purchases of spectrum licenses and other intangible assets, including deposits	(9,366)	(3,331)	(1,010)
Proceeds from sales of tower sites	40	9	12
Proceeds related to beneficial interests in securitization transactions	4,131	4,836	4,816
Acquisition of companies, net of cash and restricted cash acquired	(1,916)	(52)	-
Other investing activities, net	51	149	154
Net cash used in investing activities	(19,386)	(12,359)	(5,829)
Financing activities			
Proceeds from issuance of long-term debt	14,727	3,714	8,446
Repayments of financing lease obligations	(1,111)	(1,239)	(1,227)
Repayments of short-term debt for purchases of inventory, property and equipment :	(184)	-	-
Repayments of long-term debt	(11,100)	(5,556)	(5,051)
Repurchases of common stock	-	(3,000)	(13,074)
Dividends on common stock	-	-	(747)
Tax withholdings on share-based awards	(316)	(243)	(297)
Cash payments for debt prepayment or debt extinguishment costs	(116)	-	-
Other financing activities, net	(191)	(127)	(147)
Net cash (used in) provided by financing activities	1,709	(6,451)	(12,097)
Change in cash and cash equivalents, including restricted cash and cash held for sale	(3,760)	(2,029)	633
Cash & cash equivalents, beginning of period	10,463	6,703	4,674
Cash & cash equivalents, end of period	6,703	4,674	5,307

T-Mobile

Forecasted Cash Flow Statement (in millions)

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E
Operating Cash Flows					
Net Income	11,238	13,097	14,922	16,549	18,359
Depreciation	12,130	11,139	10,525	10,177	10,018
Change in Accounts receivable	(136)	(232)	(227)	(190)	(162)
Change in Equipment installment plan receivables	67	(248)	(116)	(3)	190
Change in Inventory	(48)	(83)	(81)	(68)	(58)
Change in Prepaid expenses	(20)	(35)	(34)	(28)	(24)
Change in Other current assets	(102)	(106)	(110)	(115)	(120)
Change in Equipment installment plan receivables due after one year	31	(113)	(53)	(2)	87
Change in Other assets	(183)	(190)	(199)	(207)	(216)
Change in Accounts payable and accrued liabilities	300	512	503	419	357
Change in Deferred revenue	24	41	40	33	28
Change in Other current liabilities	56	58	61	63	66
Change in LT Operating lease liabilities	(2,306)	(1,429)	(810)	(371)	(57)
Change in Other long-term liabilities	170	177	185	192	201
Net cash flows from operating activities	21,220	22,588	24,605	26,451	28,670
Investing Cash Flows					
CapEx	(8,828)	(9,093)	(9,366)	(9,647)	(9,936)
Change in Spectrum licenses	(918)	(926)	(935)	(944)	(953)
Change in Other intangible assets, net	722	570	417	290	171
Change in Operating lease right-of-use assets	2,216	1,373	778	356	55
Change in Financing lease right-of-use assets	267	165	94	43	7
Change in Goodwill	(781)	-	-	-	-
Net cash flows from investing activities	(7,322)	(7,910)	(9,012)	(9,901)	(10,656)
Financing Cash Flows					
Change in Short-term operating lease liabilities	(290)	(180)	(102)	(47)	(7)
Change in Deferred tax liabilities	2,539	2,536	2,408	2,136	1,778
Change in Short-term debt	62	183	148	105	45
Change in Short-term financing lease liabilities	(103)	(64)	(36)	(17)	(3)
Change in Long-term debt	(1,524)	(767)	(239)	116	325
Change in Tower obligations	(82)	(41)	(13)	6	18
Change in LT Financing lease liabilities	(101)	(63)	(35)	(16)	(3)
Change in Common equity	1,160	-	-	-	-
Repurchases of Stock	(12,391)	(12,000)	(12,000)	(12,000)	(12,000)
Total Dividends Paid	(3,322)	(3,969)	(4,262)	(4,579)	(4,924)
Net cash flows from financing activities	(14,052)	(14,364)	(14,131)	(14,294)	(14,772)
Change in Cash	(154)	313	1,462	2,255	3,242
Beginning of Year Cash	5,135	4,981	5,295	6,757	9,012
End of Year Cash	4,981	5,295	6,757	9,012	12,254

T-Mobile
Common Size Income Statement

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Revenues								
Postpaid revenues	53.12%	57.71%	61.98%	64.54%	65.41%	66.17%	66.89%	67.58%
Prepaid revenues	12.15%	12.39%	12.43%	12.85%	12.85%	12.42%	12.07%	11.78%
Wholesale and other service revenues	7.58%	6.97%	6.09%	4.14%	3.01%	2.93%	2.94%	2.97%
Total service revenues	72.85%	77.07%	80.50%	81.53%	81.27%	81.52%	81.91%	82.33%
Equipment revenues	25.87%	21.53%	18.00%	17.23%	17.37%	17.04%	16.46%	15.35%
Other revenues	1.28%	1.41%	1.50%	1.24%	1.36%	1.45%	1.64%	2.32%
Total revenues	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Operating expenses								
Cost of services, exclusive of D&A	17.39%	18.43%	14.84%	15.03%	14.98%	15.02%	15.10%	15.17%
Cost of equipment sales, exclusive of D&A	28.30%	27.07%	23.59%	20.67%	20.84%	20.44%	19.75%	18.42%
Selling, general and administrative	25.26%	27.15%	27.13%	26.00%	26.00%	26.00%	26.00%	26.00%
Impairment expense	0.00%	0.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(Gain) loss on disposal group held for sale	0.00%	1.37%	-0.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Depreciation and amortization	20.45%	17.16%	16.32%	15.01%	13.15%	11.89%	11.10%	10.61%
Total operating expenses	91.40%	91.78%	81.84%	76.71%	74.97%	73.36%	71.94%	70.20%
Operating income	8.60%	8.22%	18.16%	23.29%	25.03%	26.64%	28.06%	29.80%
Other expense, net								
Interest expense, net	-3.98%	-4.23%	-4.25%	-4.99%	-4.67%	-4.43%	-4.27%	-4.16%
Other income (expense), net	-0.25%	-0.04%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%
Total other expense, net	-4.42%	-4.27%	-4.16%	-4.90%	-4.58%	-4.34%	-4.18%	-4.07%
Income before income taxes	4.18%	3.95%	14.00%	18.39%	20.45%	22.30%	23.87%	25.73%
Income tax expense	-0.41%	-0.70%	-3.41%	-4.49%	-4.99%	-5.44%	-5.83%	-6.28%
Net income	3.77%	3.25%	10.59%	13.90%	15.46%	16.86%	18.05%	19.45%

T-Mobile
Common Size Balance Sheet

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Assets								
Current assets								
Cash and cash equivalents	8.28%	5.66%	6.54%	6.16%	6.25%	7.63%	9.83%	12.98%
Accounts receivable	5.20%	5.59%	5.97%	5.97%	5.97%	5.97%	5.97%	5.97%
Equipment installment plan receivables	5.93%	6.44%	5.67%	5.43%	5.47%	5.37%	5.19%	4.84%
Inventory	3.20%	2.37%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%
Prepaid expenses	0.93%	0.85%	0.89%	0.89%	0.89%	0.89%	0.89%	0.89%
Other current assets	2.50%	3.06%	2.99%	3.04%	3.02%	3.02%	3.04%	3.08%
Total current assets	26.08%	23.96%	24.21%	23.63%	23.75%	25.02%	27.06%	29.90%
Property and equipment, net	49.68%	52.89%	51.47%	45.94%	41.42%	38.33%	36.42%	35.29%
Operating lease right-of-use assets	33.65%	36.09%	34.54%	30.83%	27.80%	25.72%	24.44%	23.68%
Financing lease right-of-use assets	4.15%	4.09%	4.16%	3.72%	3.35%	3.10%	2.95%	2.85%
Goodwill	15.21%	15.37%	15.57%	16.10%	15.36%	14.70%	14.19%	13.79%
Spectrum licenses	115.59%	120.39%	123.10%	120.78%	116.34%	112.39%	109.53%	107.40%
Other intangible assets, net	5.91%	4.41%	3.33%	2.35%	1.57%	1.03%	0.68%	0.47%
Equipment installment plan receivables due after one year	3.53%	3.20%	2.60%	2.49%	2.51%	2.46%	2.38%	2.22%
Other assets	4.03%	5.19%	5.38%	5.46%	5.43%	5.42%	5.46%	5.53%
Total long-term assets	231.75%	241.63%	240.16%	227.66%	213.78%	203.16%	196.05%	191.24%
Total assets	257.82%	265.60%	264.37%	251.29%	237.53%	228.18%	223.10%	221.14%
Liabilities and Stockholders' Equity								
Current liabilities								
Accounts payable and accrued liabilities	14.24%	15.43%	13.20%	13.20%	13.20%	13.20%	13.20%	13.20%
Short-term debt	4.22%	6.49%	4.61%	4.55%	4.56%	4.53%	4.49%	4.41%
Deferred revenue	1.07%	0.98%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%
Short-term operating lease liabilities	4.27%	4.41%	4.53%	4.04%	3.64%	3.37%	3.20%	3.10%
Short-term financing lease liabilities	1.40%	1.46%	1.60%	1.43%	1.29%	1.19%	1.13%	1.10%
Other current liabilities	1.21%	2.32%	1.65%	1.67%	1.66%	1.66%	1.67%	1.70%
Total current liabilities	29.33%	31.09%	26.64%	25.95%	25.41%	25.01%	24.76%	24.56%
Long-term debt	83.72%	82.07%	88.98%	84.60%	79.82%	76.11%	73.60%	71.84%
Long-term debt to affiliates	1.86%	1.88%	1.90%	1.85%	1.77%	1.69%	1.63%	1.58%
Tower obligations	3.50%	4.94%	4.81%	4.57%	4.31%	4.11%	3.98%	3.88%
Deferred tax liabilities	12.75%	13.68%	17.13%	19.79%	21.88%	23.66%	25.17%	26.33%
Operating lease liabilities	32.22%	37.52%	35.95%	32.09%	28.93%	26.77%	25.44%	24.65%
Financing lease liabilities	1.82%	1.72%	1.57%	1.40%	1.27%	1.17%	1.11%	1.08%
Other long-term liabilities	6.36%	5.15%	5.00%	5.07%	5.05%	5.04%	5.07%	5.14%
Total long-term liabilities	142.24%	146.96%	155.35%	149.37%	143.02%	138.55%	136.01%	134.50%
Stockholders' equity								
Common equity	91.48%	92.92%	86.18%	85.20%	81.30%	77.80%	75.11%	72.95%
Treasury stock, at cost	-0.02%	-3.79%	-11.93%	-26.93%	-39.86%	-51.70%	-63.00%	-73.91%
Accumulated other comprehensive loss	-1.70%	-1.31%	-1.23%	-1.19%	-1.14%	-1.09%	-1.05%	-1.02%
Retained earnings	-3.51%	-0.28%	9.35%	18.88%	28.79%	39.60%	51.28%	64.04%
Total stockholders' equity	86.25%	87.54%	82.38%	75.96%	69.09%	64.61%	62.34%	62.07%
Total liabilities and stockholders' equity	257.82%	265.60%	264.37%	251.29%	237.53%	228.18%	223.10%	221.14%

T-Mobile
Value Driver Estimation

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
NOPLAT:								
EBITA:								
Revenues	80,118	79,571	78,558	80,828	84,708	88,516	91,692	94,397
Depreciation and amortization	16,383	13,651	12,818	12,130	11,139	10,525	10,177	10,018
Operating Costs:								
Cost of services, exclusive of D&A	13,934	14,666	11,655	12,145	12,688	13,299	13,841	14,323
Cost of equipment sales, exclusive of D&A	22,671	21,540	18,533	16,711	17,654	18,095	18,108	17,383
Selling, general and administrative	20,238	21,607	21,311	21,015	22,024	23,014	23,840	24,543
Plus: implied interest on operating leases	1,497	1,708	1,627	1,494	1,412	1,365	1,344	1,341
EBITA:	8,389	9,815	15,868	20,321	22,615	24,948	27,070	29,469
Less: adjusted taxes								
Total Income Tax Provision (income tax expense)	327	556	2,682	3,627	4,227	4,816	5,341	5,925
Add: Tax shield on interest expense	820	821	814	984	965	957	956	958
Minus: Tax on interest or investment income	(5)	-	-	-	-	-	-	-
Add: Tax shield on implied lease interest	365	417	397	365	345	333	328	327
Add: tax shield on any non-operating losses	49	8	-	(17)	(18)	(19)	(20)	(20)
Minus: tax on any non-operating income	-	-	(17)	(17)	(18)	(19)	(20)	(20)
Total adjusted taxes	1,556	1,802	3,876	4,941	5,500	6,069	6,585	7,170
Change in Deferred Taxes	250	668	2,574	2,539	2,536	2,408	2,136	1,778
NOPLAT	7,082	8,681	14,566	17,919	19,651	21,288	22,621	24,077
Invested Capital (IC):								
Operating Current Assets (CA):								
Normal Cash	2,225	2,210	2,182	2,245	2,353	2,459	2,547	2,622
Accounts receivable	4,167	4,445	4,692	4,828	5,059	5,287	5,476	5,638
Equipment installment plan receivables	4,748	5,123	4,456	4,389	4,637	4,753	4,756	4,566
Inventory	2,567	1,884	1,678	1,726	1,809	1,891	1,959	2,016
Prepaid expenses	746	673	702	722	757	791	819	844
Other current assets	2,005	2,435	2,352	2,454	2,559	2,670	2,785	2,905
Total operating current assets	16,458	16,770	16,062	16,364	17,175	17,850	18,342	18,591
Non Interest-Bearing Current Liabilities (CL):								
Accounts payable and accrued liabilities	11,405	12,275	10,373	10,673	11,185	11,688	12,107	12,464
Deferred revenue	856	780	825	849	890	930	963	991
Other current liabilities	967	1,850	1,296	1,352	1,410	1,471	1,535	1,601
Total non interest-bearing operating current liabilities	13,228	14,905	12,494	12,874	13,485	14,089	14,605	15,057
Net Operating Working Capital	3,230	1,865	3,568	3,491	3,690	3,761	3,738	3,534
Property & equipment, net	39,803	42,086	40,432	37,130	35,084	33,925	33,394	33,312
Net Other Operating Assets (net of depreciation or amortization)								
Spectrum licenses	92,606	95,798	96,707	97,625	98,551	99,486	100,430	101,383
Other intangible assets, net	4,733	3,508	2,618	1,896	1,326	909	619	448
Operating lease right-of-use assets	26,959	28,715	27,135	24,919	23,546	22,768	22,411	22,356
Financing lease right-of-use assets	3,322	3,257	3,270	3,003	2,837	2,744	2,701	2,694
Equipment installment plan receivables due after one year	2,829	2,546	2,042	2,011	2,125	2,178	2,179	2,092
Other assets	3,232	4,127	4,229	4,412	4,602	4,801	5,008	5,224
Total Net Other Operating Assets	133,681	137,951	136,001	133,866	132,987	132,885	133,349	134,198
Other Operating Liabilities								
Other long-term liabilities	5,097	4,101	3,929	4,099	4,275	4,460	4,652	4,853
Total Other Operating Liabilities	5,097	4,101	3,929	4,099	4,275	4,460	4,652	4,853
INVESTED CAPITAL (IC)	171,617	177,801	176,072	170,388	167,485	166,110	165,827	166,190
Free Cash Flow (FCF):								
NOPLAT	7,082	8,681	14,566	17,919	19,651	21,288	22,621	24,077
Change in IC	8,528	6,184	(1,729)	(5,684)	(2,903)	(1,375)	(283)	363
FCF	(1,445)	2,497	16,295	23,603	22,554	22,663	22,904	23,714
Return on Invested Capital (ROIC):								
NOPLAT	7,082	8,681	14,566	17,919	19,651	21,288	22,621	24,077
Beginning IC	163,090	171,617	177,801	176,072	170,388	167,485	166,110	165,827
ROIC	4.34%	5.06%	8.19%	10.18%	11.53%	12.71%	13.62%	14.52%
Economic Profit (EP):								
Beginning IC	163,090	171,617	177,801	176,072	170,388	167,485	166,110	165,827
x (ROIC - WACC)	-2.28%	-1.56%	1.57%	3.56%	4.92%	6.09%	7.00%	7.90%
EP	(3,711)	(2,676)	2,799	6,267	8,375	10,204	11,628	13,103

T-Mobile

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity:

Risk-Free Rate	4.31%
Beta	0.69
Equity Risk Premium	5.00%
Cost of Equity	7.73%

ASSUMPTIONS:

10y Treasury
5Y Monthly Beta
Henry Fund Estimate

Cost of Debt:

Risk-Free Rate	4.31%
Implied Default Premium	0.81%
Pre-Tax Cost of Debt	5.12%
Marginal Tax Rate	24.40%
After-Tax Cost of Debt	3.87%

10y Treasury

YTM on TMUS 10y corporate bond

Market Value of Common Equity:

Total Shares Outstanding	1,160
Current Stock Price	\$235.31
MV of Equity	273,074

MV Weights

71.18%

Market Value of Debt:

Short-Term Debt	3,619
Current Portion of LTD	0
Long-Term Debt	75,176
PV of Operating Leases	31,795
MV of Total Debt	110,590

28.82%

Market Value of the Firm

383,664.11

100.00%

Estimated WACC

6.62%

T-Mobile

Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

Key Inputs:

CV Growth of NOPLAT	2.50%
CV Year ROIC	14.52%
WACC	6.62%
Cost of Equity	7.73%

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E
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DCF Model:

Free Cash Flow (FCF)	23,603	22,554	22,663	22,904	23,714
Continuing Value (CV)					484,016
PV of FCF	22,138	19,841	18,699	17,725	374,576

Value of Operating Assets:	452,980
Non-Operating Adjustments	
Excess Cash	2,953
Total Debt	-110,590
PV of ESOP	-845
Underfunded Pension	-350
Value of Equity	344,148
Shares Outstanding	1,196
Intrinsic Value of Last FYE	\$ 287.80
Implied Price as of Today	\$ 303.01

EP Model:

Economic Profit (EP)	6,267	8,375	10,204	11,628	13,103
Continuing Value (CV)					318,189
PV of EP	5,878	7,368	8,419	8,999	246,244

Total PV of EP	276,908
Invested Capital (last FYE)	176,072
Value of Operating Assets:	452,980
Non-Operating Adjustments	
Excess Cash	2,953
Total Debt	-110,590
PV of ESOP	-845
Underfunded Pension	-350
Value of Equity	344,148
Shares Outstanding	1,196
Intrinsic Value of Last FYE	\$ 287.80
Implied Price as of Today	\$ 303.01

T-Mobile

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

<i>Fiscal Years Ending</i>	2024E	2025E	2026E	2027E	2028E
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EPS	\$ 9.57	\$ 11.61	\$ 13.80	\$ 15.96	\$ 18.44
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Key Assumptions

CV growth of EPS	2.50%
CV Year ROE	32.12%
Cost of Equity	7.73%

Future Cash Flows

P/E Multiple (CV Year)					17.63
EPS (CV Year)					\$ 18.44
Future Stock Price					\$ 325.02
Dividends Per Share	2.83	3.52	3.94	4.42	4.95
Discounted Cash Flows	2.63	3.03	3.15	3.28	\$ 241.30

Intrinsic Value as of Last FYE	\$ 253.39
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Implied Price as of Today	\$ 266.79
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T-Mobile

Relative Valuation Models

Ticker	Company	Price	EPS 2024E	EPS 2025E	P/E 24	P/E 25	Mkt Cap (M)	Sales 2024E	Sales 2025E	P/S 24	P/S 25
VZ	Verizon Communications	\$40.48	\$4.17	\$4.63	9.71	8.74	\$173,184	\$134,559	\$137,268	1.29	1.26
CMCSA	Comcast	\$43.91	\$3.68	\$4.05	11.93	10.84	\$168,023	\$123,397	\$122,681	1.36	1.37
T	AT&T	\$22.34	\$1.64	\$2.16	13.62	10.34	\$160,009	\$122,156	\$123,742	1.31	1.29
CHTR	Charter Communications	\$393.71	\$34.22	\$35.86	11.51	10.98	\$64,709	\$55,009	\$54,689	1.18	1.18
LBRDK	Liberty Broadband	\$97.81	\$11.62	\$13.13	8.42	7.45	\$13,239	\$998	\$1,011	13.27	13.10
LUMN	Lumen Technologies	\$9.59	(\$0.22)	(\$0.68)	(43.59)	(14.10)	\$9,271	\$12,966	\$12,328	0.72	0.75
FYBR	Frontier Communications	\$34.50	(\$1.04)	(\$0.64)	(33.17)	(53.91)	\$8,633	\$5,887	\$5,983	1.47	1.44
Average					11.04	9.67	Average				

TMUS	T-Mobile	\$235.31	\$9.57	\$11.61	24.6	20.3	279,538	80,828.4	84,707.6	3.46	3.30
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Implied Relative Value:

P/E (EPS24)	\$ 105.68
P/E (EPS25)	\$ 112.33
P/S 24	\$ 85.59
P/S 25	\$ 93.42

T-Mobile*Key Management Ratios*

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Liquidity Ratios:								
Current Ratio (current assets / current liabilities)	0.89	0.77	0.91	0.91	0.93	1.00	1.09	1.22
Net Working Capital % of Revenue	4.03%	2.34%	4.54%	4.32%	4.36%	4.25%	4.08%	3.74%
Cash Ratio (cash / current liabilities)	0.28	0.18	0.25	0.24	0.25	0.31	0.40	0.53
Asset-Management Ratios:								
Cash Turnover Ratio (Revenue / Cash)	0.08	0.06	0.07	0.06	0.06	0.08	0.10	0.13
Asset turnover ratio (Revenue / average total assets)	0.39	0.38	0.37	0.39	0.42	0.44	0.45	0.46
Working capital turnover ratio (revenue/(current assets - current liabilities))	31.35	-30.72	-14.02	-41.07	-43.07	-60.02	13970.33	43.51
Financial Leverage Ratios:								
LT Debt/Total Equity	1.03	1.02	1.16	1.20	1.24	1.27	1.27	1.25
LT Debt/Total Assets	0.35	0.33	0.36	0.36	0.36	0.36	0.36	0.35
Total Debt/Total Assets	0.50	0.52	0.53	0.52	0.52	0.51	0.50	0.50
Profitability Ratios:								
Return on Equity (NI/Beg TSE)	4.63%	3.75%	11.94%	17.37%	21.33%	25.50%	28.94%	32.12%
Gross Margin	54.31%	54.50%	61.57%	64.30%	64.18%	64.53%	65.16%	66.41%
Return on Assets (NI/Avg Total Assets)	1.49%	1.24%	3.97%	5.47%	6.48%	7.40%	8.14%	8.88%
Operating Margin	8.60%	8.22%	18.16%	23.29%	25.03%	26.64%	28.06%	29.80%
Payout Policy Ratios:								
Dividend Payout Ratio (Dividend/EPS)	0.00%	0.00%	9.26%	29.56%	30.31%	28.56%	27.67%	26.82%
Total Payout Ratio ((Divs. + Repurchases)/NI)	0.00%	115.83%	166.18%	139.82%	121.93%	108.98%	100.19%	92.19%

T-Mobile

Valuation of Options Granted under ESOP

Current Stock Price	\$235.31
Risk Free Rate	4.31%
Current Dividend Yield	1.52%
Annualized St. Dev. of Stock Returns	22.50%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	8	136.67	0.90	\$ 100.68	\$ 781
Range 2	1	145.32	1.00	\$ 92.73	\$ 64
Total	8	\$ 137.38	0.91	\$ 103.24	\$ 845

T-Mobile

Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding

Number of Options Outstanding (shares):	8
Average Time to Maturity (years):	0.91
Expected Annual Number of Options Exercised:	9

Current Average Strike Price:	\$ 137.38
Cost of Equity:	7.73%
Current Stock Price:	\$235.31

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E
Increase in Shares Outstanding:	8				
Average Strike Price:	\$ 137.38	\$ 137.38	\$ 137.38	\$ 137.38	\$ 137.38
Increase in Common Stock Account:	1,160	-	-	-	-
Share Repurchases (\$)	12,391	12,000	12,000	12,000	12,000
Expected Price of Repurchased Shares:	\$ 235.31	\$ 249.93	\$ 265.45	\$ 281.93	\$ 299.45
Number of Shares Repurchased:	53	48	45	43	40
Shares Outstanding (beginning of the year)	1,196	1,152	1,104	1,058	1,016
Plus: Shares Issued Through ESOP	8	0	0	0	0
Less: Shares Repurchased in Treasury	53	48	45	43	40
Shares Outstanding (end of the year)	1,152	1,104	1,058	1,016	976

T-Mobile
Sensitivity Tables

WACC

CV Growth of NOPLAT							
303.01	1.75%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%
5.87%	334.82	350.60	368.56	389.20	413.14	441.25	474.73
6.12%	310.60	324.04	339.23	356.51	376.35	399.39	426.43
6.37%	289.00	300.52	313.44	328.04	344.65	363.72	385.86
6.62%	269.61	279.54	290.61	303.01	317.03	332.98	351.30
6.87%	252.11	260.71	270.23	280.85	292.76	306.20	321.50
7.12%	236.24	243.71	251.95	261.08	271.25	282.66	295.55
7.37%	221.78	228.30	235.45	243.33	252.07	261.81	272.73

2025 SGA % of Sales

2025 Cost of services as a % of service sales							
303.01	16.93%	17.43%	17.93%	18.43%	18.93%	19.43%	19.93%
24.50%	344.73	338.45	332.18	325.91	319.63	313.36	307.09
25.00%	337.10	330.82	324.55	318.28	312.00	305.73	299.46
25.50%	329.46	323.19	316.92	310.65	304.37	298.10	291.83
26.00%	321.83	315.56	309.29	303.01	296.74	290.47	284.20
26.50%	314.20	307.93	301.66	295.38	289.11	282.84	276.56
27.00%	306.57	300.30	294.03	287.75	281.48	275.21	268.93
27.50%	298.94	292.67	286.40	280.12	273.85	267.58	261.30

Equity Risk Premium

Beta							
303.01	0.60	0.63	0.66	0.69	0.72	0.75	0.78
3.50%	415.39	404.23	393.58	383.39	373.63	364.29	355.33
4.00%	385.05	373.86	363.20	353.04	343.34	334.07	325.20
4.50%	358.27	347.12	336.54	326.47	316.89	307.75	299.03
5.00%	334.45	323.40	312.94	303.01	293.58	284.61	276.06
5.50%	313.11	302.21	291.91	282.15	272.89	264.11	255.75
6.00%	293.89	283.16	273.03	263.46	254.40	245.80	237.64
6.50%	276.48	265.93	256.00	246.62	237.75	229.36	221.40

Pre-Tax Cost of Debt

Marginal Tax Rate							
303.01	22.90%	23.40%	23.90%	24.40%	24.90%	25.40%	25.90%
4.37%	321.24	319.81	318.38	316.94	315.49	314.04	312.59
4.62%	316.37	314.98	313.58	312.17	310.76	309.35	307.93
4.87%	311.63	310.27	308.90	307.53	306.16	304.78	303.39
5.12%	307.01	305.68	304.35	303.01	301.67	300.33	298.97
5.37%	302.51	301.22	299.92	298.61	297.30	295.99	294.67
5.62%	298.14	296.87	295.60	294.33	293.05	291.76	290.47
5.87%	293.87	292.63	291.39	290.15	288.89	287.64	286.38

Risl-Free Rate

Normal Cash Estimate							
303.01	2.03%	2.28%	2.53%	2.78%	3.03%	3.28%	3.53%
3.56%	359.41	359.10	358.80	358.49	358.18	357.88	357.57
3.81%	339.17	338.87	338.57	338.27	337.97	337.67	337.36
4.06%	320.75	320.45	320.15	319.86	319.56	319.26	318.97
4.31%	303.89	303.60	303.31	303.01	302.72	302.43	302.14
4.56%	288.42	288.13	287.84	287.55	287.26	286.97	286.69
4.81%	274.15	273.87	273.58	273.30	273.02	272.73	272.45
5.06%	260.97	260.68	260.40	260.12	259.84	259.56	259.28

2025 CapEx Estimates

2025 Equip COGS % of sales							
303.01	112.5%	115.0%	117.5%	120.0%	122.5%	125.0%	127.5%
8,793	324.79	318.84	312.89	306.93	300.98	295.03	289.08
8,893	323.48	317.53	311.58	305.63	299.67	293.72	287.77
8,993	322.18	316.23	310.27	304.32	298.37	292.42	286.46
9,093	320.87	314.92	308.97	303.01	297.06	291.11	285.16
9,193	319.57	313.61	307.66	301.71	295.76	289.80	283.85
9,293	318.26	312.31	306.36	300.40	294.45	288.50	282.54
9,393	316.95	311.00	305.05	299.10	293.14	287.19	281.24