Equity Report [1/4/2021]

Verizon

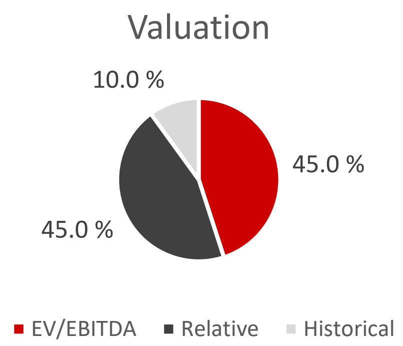
Tech

NASDAQ Symbol: VZ

Recommendation: BUY

Covering Analyst: Dana Welty

Intrinsic Value:



Capital Structure	
Equity	62.5%
Debt	37.5%
CAPM Presumptions	
Beta	.53
Risk Premium	5.2%
Risk-Free Rate	1.7%
Terminal Growth Rate	3.00%
WACC Presumptions	
Cost of Equity	4.4%
Cost of Debt	3.2
Cost of Capital	3.7%

Intrinsic Value	Margin of safety
$64.37	**10.7%**

Source: Company Data, Group Estimates

Executive Summary

This equity report provides an analysis and evaluation of the current and future performance of **Verizon Wireless** over a future period of five years. My methods of analysis include the **relative model, historical model, and EV/EBITDA,** as well as various ratios including but not limited to ROA, ROE, ROIC, liquidity ratios, capital structure ratios, and profitability ratios.

My report finds that the prospects of the company in its current position are **positive**. The primary catalysts for long-term growth include:

- Verizon Wireless has substantial ESG Observations that will help them flourish in an increasingly aware society. They continue to set goals for future growth such as carbon neutrality by 2035, as well as generating renewable energy equivalent to 50% of their total electricity consumption in the next five years.
- Verizon Wireless has healthy finances that make them especially attractive for a telecom stock. Having healthy finances helps mitigate their monetary risks that come with the telecom sector.
- Verizon has continuous innovation that places them as a frontrunner for each technological advancement and is gearing up to launch new advancements with the quick-growing industry.

I conclude that this company's stock is **undervalued**, resulting in a margin of safety of **10.7%**. Reasons that the market has placed this stock at value include:

- Growing security threats combined with Verizon's history put them at risk of public scrutiny in a time where privacy issues have gained social traction.
- Fierce competition between rivals has narrowed the differences between services substantially, making Verizon's higher quality, higher price metric less enticing than cheaper alternatives.
- Overreliance on US markets may make it more difficult to break into the rest of the world, and the lack of diversification could set them up for a loss if the market falls.

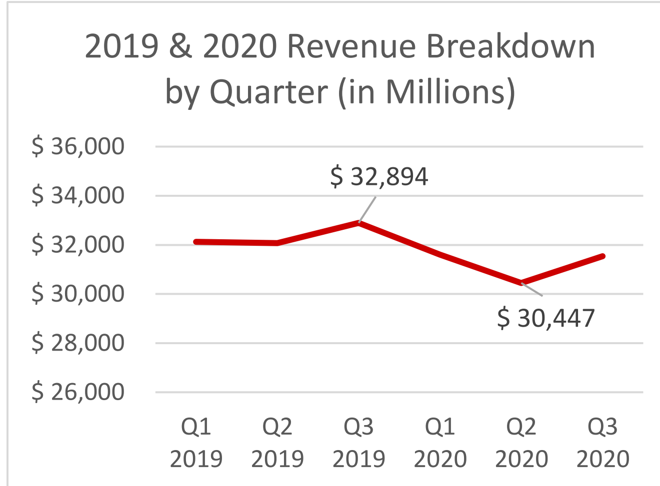
Given Verizon's optimistic future and strong showings combined with AT&T's underperformance and sub-par outlook for the foreseeable future, we should replace AT&T with Verizon Wireless in our large-cap portfolio.

Key Stock Statistics:

52-Wk Range ($)	48.4-61.95	Dividend Yield	4.27%	Book Value/Share (mrq)	15.72
Beta	0.53	Diluted EPS (ttm)	4.42	Operating Margin (ttm)	24.07%
Market Capitalization ($BN)	243.53B	P/E (ttm)	13.31	S&P Credit Rating	Baa
Forward Annual Dividend	2.51	P/B (mrq)	3.74	Institutional Ownership	66.35%

Source: Yahoo! Finance

Business Description



Verizon Wireless (VZ) is a telecommunications company specializing in consumer-based products. They are a holding company, and one of the world's leader for communication, information, and entertainment products and services. They focus on selling wireless and wireline communications products and services. While they are most known for their phone services and phone plans, they also offer internet services, laptops, tablets, or smart watches, and have brands specializing in information and entertainment with brands such as Yahoo, HuffPost, and TechCrunch. They supply their products to individual consumers, businesses, and government entities, and have services around the world, although most of their recognition comes from the US markets. They strive to create the future and hope to "set the stage for the next Industrial Revolution." In 2019 their revenue reached almost $131.9 billion, and 2020 is expected to hover a bit below that number with the COVID-19 pandemic hitting some of their sales avenues These statistics will be covered in more detail in future sections of this report. While it is normal for Verizon's sales to drop in their second quarter, their sales in Q2 of 2020 took a larger hit than normal. However, their sales did not fluctuate drastically compared to many other companies, as the telecom industry has maintained (and gained) importance in 2020. However, Verizon does not specialize in video conference calls the way other telecom companies do. This led them to still experience some decrease in sales, but they still hovered comfortably above $30,000 million, which when totaled over the span of 2020 is projected to be above sales from both 2016 and 2017, and just below sales from 2015, 2018, and 2019.

Products and Services

Verizon Wireless has two main products and services for their business. The first is providing wireless equipment to consumers, and the second is providing wireless services for their products. They also own brands such as FleetMatics, Sensity Systems, Complex, Straight Path Communications, and the well-known Yahoo! Search engine. These brands range from internet and software services to energy and search engines, and they have made many other acquisitions in between. Many of their acquisitions occurred from 2016-2017, although they had quite a few notable acquisitions before 2016. Their latest acquisitions was Yahoo! in 2017.

For their wireless network, they are known for being the first company to offer global, mobile 5G networks. 5G is the fifth generation of wireless technology. With each generation, the cellular network technology increases the speed of the internet.

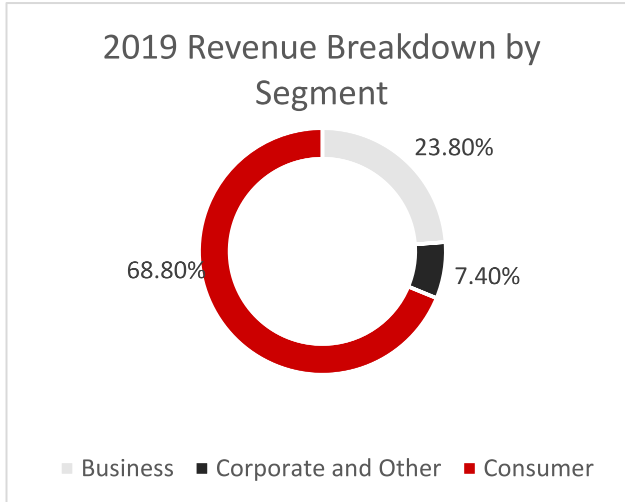
They also offer 4G LTE, which differs from their 5G networks. 4G LTE is short for "fourth generation long-term evolution." Put simply, it is industry jargon that describes the type of 4G that delivers the fastest mobile internet experience. In 2016, Verizon was the first U.S. provider to deploy LTE Advanced on a national scale, providing more and more people with higher internet speeds. Over 98% of the United States has access to 4G LTE today. To put this speed in perspective, it takes less than 1 second to download an individual email, 4 seconds to download an entire 3-book, and 7 seconds to download an MP3 file.
To compare 4G LTE and 5G is a bit more difficult. 4G LTE has become more mainstreamed, but 5G will allow for autonomous cars, smart communities, immersive augmented reality, and more. These things were not possible even with 4G LTE speed.

In addition to their internet offerings on a 4G and 5G scale, they also offer broadband and fiber optic network through their Fios TV and internet. While they were not the first major US carrier to offer fiber to home services, they have been rated #1 in speed and reliability for 12 years. They also offer multi-access edge computing (MEC), which is a service that brings technology resources such as compute and related infrastructure closer to where the data is being generated (think of the Cloud). Its purpose is to extend functionality of networks and provide improved capabilities that allows localized data, and the options fore greater performance.

While Verizon might be known for their internet offerings, they provide many other services. They offer secure gateway services, advanced threat analytics and detection, incident response and investigation, and security advisory services to help combat security threats to a business. They are also continuously working to improve the functionality of cities around the world with improved traffic flow research, energy efficient lighting, improved parking, and more.

Revenue Drivers

Consumer



Verizon's main source of revenue is from their consumer segment, which accounts for almost 69% of their overall revenue. With approximately 95 million wireless retail connections, 6 million broadband connections, and 4 million Fios video connections, this revenue driver is what Verizon is most famous for. This segment includes wireless services, Fios fiber-optic internet, and residential fixed connectivity solutions, such as video and voice services. These products are then sold on a consumer level to retail customers, as well as to other resellers who purchase Verizon's product at wholesale. Consumers can obtain Verizon's wireless services on a postpaid or prepaid basis. Postpaid service means that the customer pays in advance for their internet services, typically 1 month beforehand. On the other hand, prepaid service means that consumers obtain their services before payment (as the name suggests). Verizon Consumer Group also sells residential fixed connectivity solutions such as internet, video and voice services, and wireless network access. However, this is a very small piece of their income, and although has increased in 2020, has not increased enough to be a notable improvement due to the success of other video platforms such as Zoom. Overall, Verizon's Consumer group ended 2019 with revenue totaling $91.1 billion, a 1.4% increase compared to 2018. These numbers are projected to fall in 2020 due to the expenses incurred because of COVID-19, but Verizon has managed to largely stay above water.

Verizon Business Group

Verizon Business Group accounts for the next largest portion of Verizon's revenue at 23.8% of total revenue. This segment focuses on providing wireless and wireline communications services and products to businesses and government customers across the United States, as well as a select portion of their services on a global scale. At the end of 2019, this segment's operating revenues totaled $31.4 billion, a decrease of $91 million (.3%). These numbers are not projected to change drastically because of the COVID-19 pandemic, and they expect to maintain their 25 million wireless retail postpaid connections and 489 thousand broadband connections for the coming years, with improved growth beginning in 2021.

Corporate and Other

Verizon's final revenue segment accounts for 7.4% of revenue. The corporate segment includes the results from their media business, Verizon Media, as well as investments in unconsolidated businesses, unallocated corporate expenses, and other pension and employee benefit related costs, interests, and financing expenses. Verizon Media Group serves at both the consumer and business level, and provides customers with third-party search properties, mail, news, finance, and sports and entertainment. These revenues totaled $7.5 billion at the end of 2019, a decrease of 3% from 2018. This region is expected to increase revenue in the coming years as Verizon has begun to take a larger part in the media, and they anticipate growth in 2020 and beyond. This is a large opportunity area for Verizon to capitalize on after lacking in the video media areas in 2020.

Non-Service Revenues

A small piece of Verizon's revenue also comes from non-services. These come in the form of fees, cost recovery surcharges, revenues associated with their device protection package, and leasing and interest on equipment financed under a device payment plan. These revenues increase $1.0 billion, or 14.4% during 2019. This was due to pricing increases and regulatory fees.

Although this number is projected to increase in 2020 and beyond, it will likely not increase as drastically, and still does not count for a substantial portion of their revenue.

Cost Drivers

Verizon's largest expense comes from their cost of services, followed closely by their SG&A expenses, then their cost of wireless equipment. In each area, their costs decreased from 2018 – 2019, with the largest decrease coming from their SG&A expenses, which dropped 3.8%, followed by cost of wireless equipment and cost of services, with drops of 1.6% and 1.3%, respectively. The telecom industry was not hit as hard as other sectors due to COVID-19, and the sector saw closer to plateaus compared to drastic drops of other sectors. As a result, costs decreased only slightly because of slightly decreased revenues. In 2021, these expenses are expected to return to normal growth levels with revenues.

Cost of Services

Having high cost of services is an industry standard for telecom stocks. These costs include salaries and wages, benefits, and other employee expenses, as well as network access and transport costs, computer systems, and costs to support outsourcing contracts. Their costs decreased $413 million (1.3%) during 2019 due to decreases in network access costs, as well as a product realignment charge in 2018 and a decrease in digital content costs. In 2019, Verizon also incurred increased rent expenses due to adding capacity and the adoption of new leases, but these expenses were offset by the other decreases in cost of services for an overall decrease. For 2020, this cost is expected to decrease yet again, but is expected to decrease due to a decrease in operating revenue from complications of COVID-19. Cost of service has consistently been a percentage of revenue, so this expectation is not a surprise.

Selling, General and Administrative Expenses (SG&A)

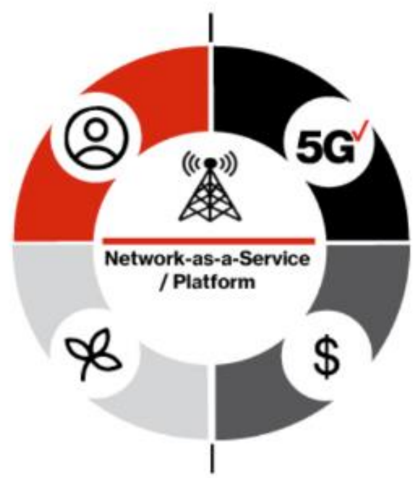
High SG &A expenses are also common for telecom stocks. These expenses are projected to be slightly higher in 2020 than 2019 due to increased marketing expenses and efforts to market their 5G campaign. These expenses did decrease by $1.2 billion (3.8%) from 2028 to 2019, primarily due to decreases in employee-related costs, decreases in severance, pension, and benefit charges, and the acquisition and integration related charges from 2018.

Cost of Wireless Equipment

Verizon's cost of wireless equipment decreased in 2019 by $369 million, or 1.6%. This was a result of declines in the number of wireless devices sold due to the "handset upgrade cycle, partially offset by a shift to higher priced devices." This expense is expected to increase in 2020 due to COVID-19.

Business Strategy

Verizon's business strategy is to continue to expand their position as a leader in the telecom industry. They plan to achieve this goal by putting their customers first, innovating new growth, maintaining a purpose-driven culture, and maintaining financial discipline.



They plan to continue to prioritize customers by providing the best network experiences with customer-centric models. They have continued to offer new product plans for their wireless services, including a new mix & match plan implemented in 2020 that allows customers to choose the coverage and cost that works for them. With this addition, including additions to their Fios internet offerings, Verizon added around 142,000 new postpaid phone net adds with relatively low churn levels. For their strategy of driving new growth, they plan to continue their 5G and edge compute and take advantage of new marketing opportunities which will be discussed in more detail in later sections. They were the first company in the world to launch a mobile 5G network and commercialize a multi-access edge compute service, which set the bar for other companies within this industry. This has helped them reach their goal of being an industry leader. For their culture, they plan to continue their responsible business practices and strategically place their talent in the board of directors. They value respecting different viewpoints and brining in a mix of backgrounds, skills, and experience that allows them to see various perspectives on various issues. Finally, they plan to maintain balance in their capital allocations and have best-in-class cost models. Relative to other telecom companies, they maintain a healthy debt balance, something that sets them apart compared to other companies.

Industry Overview

Verizon Wireless is nested under the telecommunications sector. This industry is made up of companies who create the possibility for global communications. Products and services in this sector range from phones, internet services, wired-in or wireless services, and more. The origins of the telecom sector began in the 2830s with the invention of the telegraph. However, as the industrial revolution took hold, new inventions such as the telephone, radio, computer, and smart phone began to drastically change how the telecom sector looked and acted. Depending on the stock, telecom companies can be either growth or value oriented, although the have a reputation for volatility compared to stocks in other sectors. However, it is an increasingly popular industry as mobile and smart phones shift from a luxury to a necessity, especially during the COVID-19 pandemic.

Industry Growth

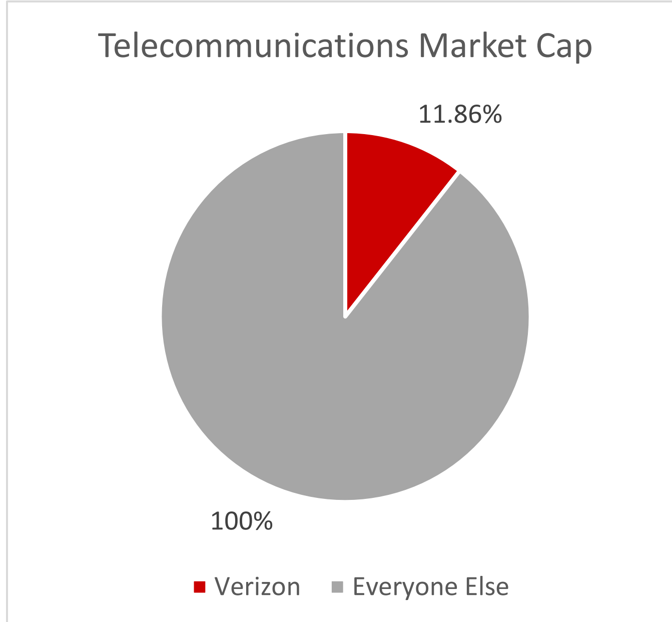
Telecommunications can be an enticing industry for those looking for growth. Within the telecom industry, there are various sub-sectors who have slightly differing valuations. These include wireless communications, foreign and domestic telecom services, processing systems, and communications equipment, to name a few. Of these, wireless communications have experienced (and are expected to continue to experience) rapid growth. Technological advances within this sector are common, and companies strive to be the first to reach the next generation of wireless speed. In 2019, Verizon became the first company to offer global 5G, a strong promise of their future competitiveness in this industry. Because Verizon operates largely in this area of high growth, this is promising for their future. Overall, the telecom industry is expected to grow at a 5% CAGR from 2020-2027, although COVID-19 decreased their growth for a brief period similar to the overall trend of the market in March of 2020.

Industry Disruptors

Forces disrupting the telecom industry include content integration, the Internet of Things, and Security issues. Beginning with content integration, we can see that new online services are increasingly popular with new streaming services, games, and more. Companies are looking to acquire the rights to these companies and make sure that only certain other companies can access them to continue revenue streams. If a company does not take advantage of opportunities like these, it could be harmful for their outlook. Additionally, the Internet of Things (IoT) provides a risk. The IoT essentially describes the entire spectrum of devices that are connected to the internet. This includes phones, computers, watches, or other devices that we typically think of when we think of the internet, but it also could include cars, lights, or washing machines (think “smart devices”). With the immense amounts of data that are captured every day, this strains networks and makes it increasingly difficult to handle and find relevant data. Finally, security is a large issue, especially with consumers. One of the more interesting paradoxes in the world describes how consumers *say* that they want all the convenience and benefits that digital technology offers, but they are unwilling to sacrifice any of their privacy to get them. Similarly, the “Social Sharing” paradox describes how even though users of social media sites claim they want privacy, they may freely share large quantities of personal information without the confidence that institutions will protect that information. As privacy continues to be a large issue for telecom, it is something that companies will have to pay special mind to ease the hesitant feelings of consumers.

Market Share

Verizon is the largest player in the telecommunications sector with a market cap of $243.03 billion. They are followed by Comcast with a market share of $227.94 billion, AT&T at $209.00 billion, and T-Mobile at $163.42 billion, who recently acquired Sprint in 2020. Out of the largest 87 companies in the telecom industry, Verizon owns 11.86% of the market cap, totaling $2.05 trillion for all companies. Verizon is a clear industry leader. As for their wireless business specifically, Verizon owns roughly 40% of the postpaid phone market. This is larger than both AT&T and T-Mobile. Because of their lead, they can generate higher margins and higher returns on capital compared to these similar companies. While the T-Mobile/Sprint merger may seem like it should negatively impact Verizon's market share, it did not make any drastic changes to their largest wireless network share. Sprint owned less than 3% of the market share for prepaid business, so T-Mobile acquiring Spring did not hurt Verizon in terms of their wireless market share.



Competitive Analysis

I analyzed Verizon's competitive positioning by constructing a SWOT analysis and a Porters' Five Forces model. These allowed me to evaluate the company's potential for future growth.

SWOT Analysis

Strengths

- Strong, well-known brand name paint an industry leader that provides familiarity among buyers
- Large market cap and strong market dominance makes gives them stronger influence in the telecom industry
- Continued and reliable dividends as well as promising financial positions
- Continued innovations provide ample opportunities for growth in a growth-minded field
- Calculated acquisitions add to their brand portfolio and provide opportunities for future success

Weaknesses

- Dependence on the US market forces a vulnerable position
- Leaked data stained their reputation as growing security concerns continue to affect the market
- Lack of diversification outside the telecom sector could cause losses in the event of a decline

Opportunities

- Global expansion would aid in their current dependence on the US market and provide further revenue streams
- Diversification into different tech industries such as smart cities is on the horizon, but no action yet
- Videoconferencing opportunity if COVID-19 continues to threaten the world, and if working from home stays on trend

Threats

- Security issues gives consumers pause, and make reliability in telecom companies questionable
- Competitive rivalry continues to increase among the main sellers in the industry

Porter's Five Forces

Porter's five forces, which provide a framework for industry analysis, were formulated by Michael E. Porter of Harvard Business School in 1979. Following are the five parameters on which I analyzed Verizon, and their position within the telecom sector.

Rivalry Amongst Sellers | High

I listed the rivalry amongst sellers as high. There are three main companies competing for selling power including AT&T and T-Mobile, along with Verizon. Verizon attempts to attract customers through higher quality services, but small differences in services make competition to create the "next big thing" in telecom extremely intense.

Threat of Substitutes | High

The threat of substitutes is high. Companies used to rely on contracts to keep their customers around and prevent them from switching carriers. However, as companies began to provide the option to purchase contracts, switching products became easy. Even though Verizon arguably has the best service, their higher prices incentivize consumers to seek other options, even if the quality is not as high.

Pressure from Supplier Bargaining Power | Low

This threat is generally low for the telecom industry as raw materials are not terribly hard to find. Combined with a strong supply chain across the United States, Verizon's pressure from supplier bargaining power is low.

Threat of New Entrants | Low

The threat of new entrants is low for Verizon. Starting a telecom company – especially one as large and well-known as Verizon or others – requires immense amounts of capital and many different government regulations. It is increasingly difficult to get into the telecom scene, so this threat is very low.

Pressure from Buyer Bargaining Power | Medium-High

Pressure from buyer power is listed as medium-high. Customers can easily switch from carrier to carrier, and as the gap closes between the differences between carriers, it is more and more difficult for Verizon to set themselves apart for their internet services. However, they have other revenue streams that help combat this threat that are mentioned in sections above.

Financial Analysis

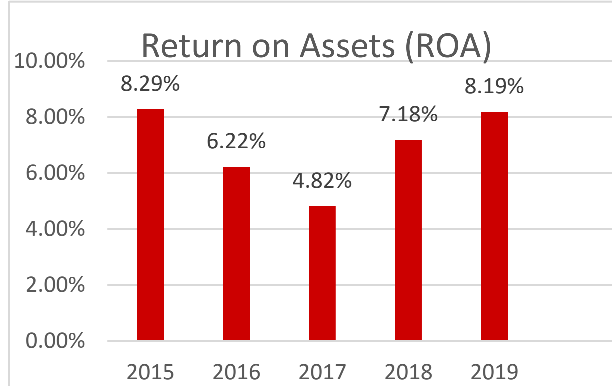
My financial analysis involves the use of a DuPont method and other financial ratios. These are especially useful in evaluating a company's ability to deploy, retain, and generate income. Verizon has promising fundamentals that lend the company capacity to expand safely to maintain a competitive advantage in the telecom industry.

DuPont Analysis

A DuPont analysis involves breaking down ROA, ROE, and ROIC into granular components for detailed analysis.

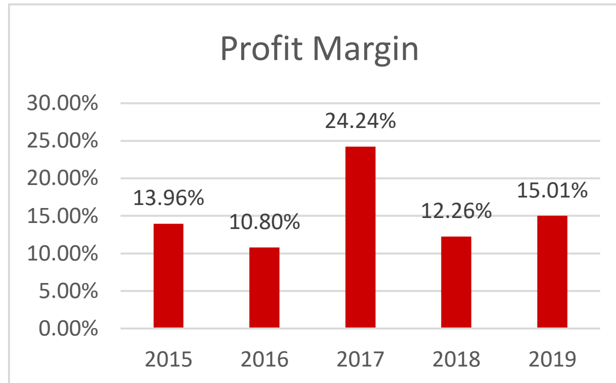
Return on Assets (ROA)

Return on assets is calculated using the DuPont method, breaking down the calculation into two separate ratios. Profit margin and asset turnover are calculated, and the product is ROA. Verizon performed well in each year except 2017, when they experienced falling revenues partially due to their data breach scandal. They were able to improve this ratio the following year and will likely have a similar percentage in 2020 and after.



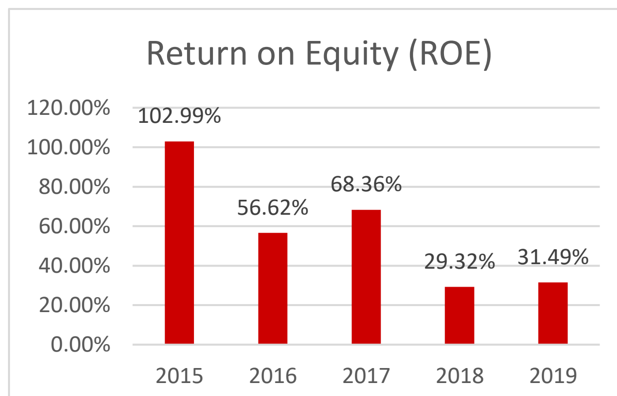
- Profit Margin

Profit margin is calculated as net income divided by total revenues. This indicates the percent of cash remaining after incurring all expenses. While Verizon had a low ROA in 2017, they had a high profit margin. This is due to a much higher net income than other years due to increased advertising during their fourth quarter. Their profit margin is above average, but lacks consistency compared to other companies, even those in the telecom sector.



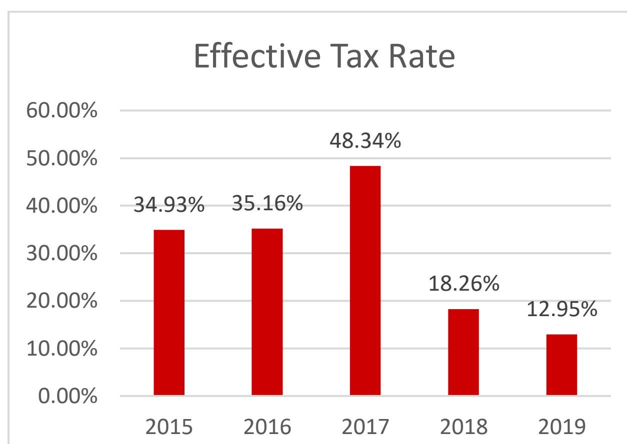
Return on Equity (ROE)

Return on equity (ROE) is calculated utilizing the DuPont method, breaking down the calculation into five separate ratios: tax burden, interest burden, operating margin, asset turnover, and leverage ratio—the product of these ratios results in ROE. Verizon has a very high ROE, but it fluctuates from year to year. The industry average ROE is around 12.25%, a mark that Verizon is well above. This is an important measure for telecom stocks, and although Verizon's is more volatile than other companies, they maintain extremely high ROE levels. A notable outlier is 2015, with an ROE above 100%. In this case, Verizon had much lower levels of equity compared to other years.



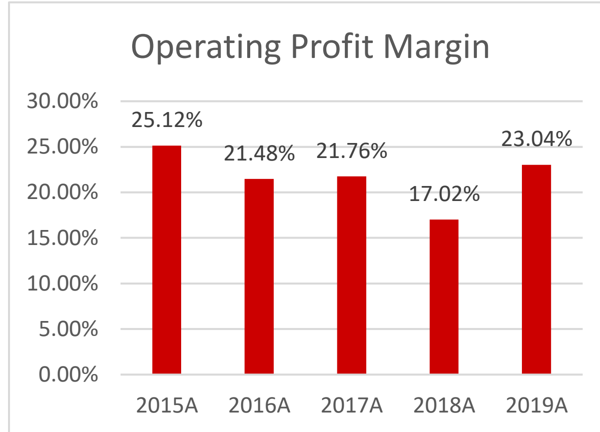
- Effective Tax Rate

The effective tax rate is calcualted as provisions for taxes on income over earnings (EBT). Companies want a smaller tax rate, as it would indicate that the company can retain more cash after taxes. Verizon experienced higher tax rates in 2015-2017 but experienced the benefits of corporate tax cuts from the 2018 and 2019 administration to reduce these expenses substantially. Management guidance suggests these rates will hover around 24% in the coming years, which is standard for a company such as Verizon.



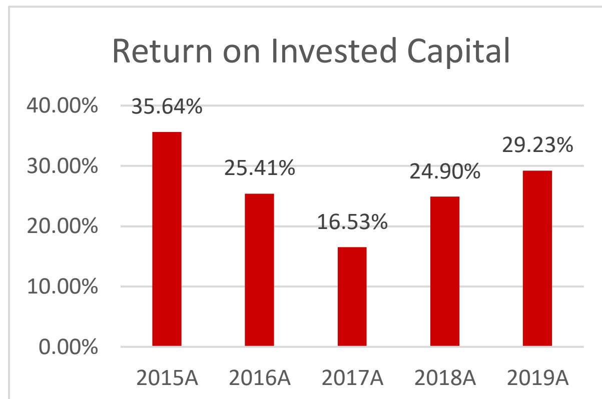
- Operating Profit Margin

Operating profit margin is calculated by dividing earnings before interest and tax (EBIT) also called operating profit by total revenues. Operating profit margin is used to analyze what percentage of total revenues remains after both cost of goods sold and operating expenses such as RD&E and SG&A are deducted from total revenues. This is a very common first indicator of a company's financial health. It allows investors to determine if the company is experiencing operational inefficiencies. Common causes of reductions in operating margin include M&A activities, which can inflict administrative cost if the merger is non-coherent, and unexpected litigation. This ratio is the most consistent of the ratios analyzed for Verizon. For telecom stocks, a value above 17% is greater than average, and Verizon stays above this mark each year. Although it is normal for telecom stocks to be above the market average for operating profit margin, Verizon stays well above the average.



Return on Invested Capital (ROIC)

Return on invested capital (ROIC) is calculated utilizing the DuPont method, breaking down the calculation into two separate ratios: NOPAT to total revenues and total revenues to invested capital. The product of these two ratios produces ROIC. Having a strong ROIC is extremely important for telecom stocks, since having the ability to generate a return above the cost of capital is a necessity. Telecom is a fast-growing field, and ROIC does a good job of analyzing where a specific company is at using one metric.



Other Financial Ratios

Other financial ratios include ratios not used in the traditional DuPont calculations. These ratios are supplemental in analyzing the company's current and potential ability to handle both macroeconomic and microeconomic events. The most relevant ratios for Verizon are the P/E and P/S ratios, as well as EV/Sales and EV/EBITDA. These ratios give a good overall valuation for a telecom stock, as EV/Sales and EV/EBITDA consider debt levels that are important to note.

Valuation

My valuation is the result of a combination of four methods. These methods offer value-added exposure to multiple levels of analysis. These models included a discounted cash flow model, EV/EBITDA, a relative model, and a historical model. To come to a final intrinsic value, each model was given a weighting based on my analysis of each methods applicability to Verizon's past, present, and future.

Discounted Cash Flow (DCF)

I employed a discounted cash flows analysis as one of my methods to derive a price target for Verizon. In the model, I forecasted future free cash flows through the FY 2024E. This time horizon appropriately captures several expected growth trends in Verizon's operating results while maintaining a reasonable level of predictability. In my final valuation, I put 45% of my weighting to EV/EBITDA because it reflects the highest level of detail out of any other model used in my valuation and represents one of the most accurate valuations for Verizon. Additionally, EV/EBITDA can be extremely useful when comparing companies within the same industry. Since a buy (or sell) for Verizon would mean a sell (or buy) for AT&T, the stock we currently own, I used a large portion of my valuation on this comparison. I did not use EV/Sales because although it is still a good measure, it is not as good of a measure for comparisons. Given the current circumstances for our future portfolio, the comparison is more important.

Revenue

Revenue was projected using a projected growth of around -1% for 2020, with a 2% growth in 2021 and 3% growth thereafter. Management guidance suggested that overall, 2020 revenue levels would be less than 2019 due to early COVID complications, and the first three quarters of earnings supports this number. Their revenues have not suffered in 2020 as much as other industries, largely because of the necessity that the telecom industry is becoming. They project in 2021 to increase their growth from 2019 levels, and then return to closer to the industry standard for growth. However, since Verizon is already a huge corporation, their projected growth is slightly smaller than that of the rest of the industry.

Cost of Goods Sold (COGS)

I projected cost of goods sold as a percent of revenue as it has remained stable over the past five years. Verizon breaks down their cost of goods sold into cost of services and wireless cost of equipment, hovering around 24% and 17.6% respectively. Management guidance suggests that this number is expected to be constant, so I kept it constant for the future.

Selling, General, and Administrative Expenses (SG&A)

I forecasted SG&A expenses as a percent of revenue. Verizon has maintained consistent levels of SG&A expenses, leading me to keep an average rate of 22.5% for the next five years with the exception of 2020 at 23%. Management guidance suggested that SG&A expenses would see a slight increase on the year, leading me to slightly increase the percentage of revenue relative to the rest of the years. They project this cost to increase due to increased marketing expenses from COVID-19.

Beta

Beta was estimated by performing a regression of Verizon's historical returns against the S&P 500. Three periods were used for the regression: 5-year monthly returns, five-year weekly returns, and five years' daily returns. Of the three-time regressions, I selected the one that resulted in the highest R-Squared value - the one-year daily regression with an R-Squared of .74 and an adjusted R-squared of 0.547. The value of beta from this regression was .53. Given the high R-squared value and the fact that this beta is extremely close to the beta provided by various financial resources, I opted to use this beta instead of the bottom-up beta of .63.

Terminal Value Calculations

I calculated the terminal value based on the Perpetual Growth Method (PGM). I used the standard terminal growth rate of 3% to reflect Verizon's mature business position while still acknowledging that they have some growth potential.

Capital Asset Pricing Model (CAPM) & Weighted Average Cost of Capital (WACC) Presumptions

In calculating Verizon's cost of equity, I used the capital asset pricing model (CAPM). I used the NYU Stern's equity risk premium of 5.23% with risk-free rate data from the 30-year Treasury Bond at 1.66% giving me a cost of equity of 4.4%. I also used 3.2% as my long-term credit yield based on Verizon's longest outstanding debt. I am comfortable using this number as it also nearly matches the long-term yield on bonds with a Baa1 rating. This gave me a cost of capital of 3.7%.

Relative Model

I also weighted the relative model at 45%. I compared Verizon to 9 different companies, but used only two in my valuation: AT&T and T-Mobile (who now includes Sprint). Of the 9 companies, I chose to analyze companies such as 3M, Proctor&Gamble, and Visa based on Verizon's peer reports. I chose these companies by comparing relative figures such as ROE, ROA, and Market Cap, as well as P/E ratio, P/S ratio, and EV/EBITDA as well. I chose only to weight AT&T and T-Mobile because they are the most comparable companies to Verizon and provide the most relevant information for our decision-making process. Since we currently own AT&T in our portfolio, it is important to compare AT&T to Verizon directly to make sure we make the best decision. I weighted AT&T at 70% at T-Mobile at 30%.

P/S

I weighted P/S at 50%. Both P/E and P/S would have been good models to weight for the relative model, but the P/E ratio for T-Mobile skewed the results. T-Mobile's P/E ratio is 50.2, while AT&T and Verizon's are 19.1 and 13.3, respectively. For this reason, I instead weighted P/S. The values are much closer aligned and paint a more accurate picture, with the ratios of T-Mobile, AT&T, and Verizon clocking in at 2.4, 1.2, and 1.9, respectively. With the size of each company and the telecom sector, using P/S as a measure of sales provides a good valuation.

EV/Sales

I also weighted EV/Sales at 50%. I weighed an EV/ ratio because it's important to take a company's debt into account for the telecom sector, leading me to either weight EV/Sales or EV/EBITDA. However, similar to the P/E ratio, the EV/EBITDA values were a bit skewed. T-Mobile had an EV/EBITDA of 14.7 compared to Verizon's 88.8. Instead, using EV/Sales allowed me to avoid this misinterpretation and use metrics that were much closer together for the weighted companies.

Historical Model

The historical P/E model is an analysis of past market premiums to company earnings at the highest and lowest price for the period FY 2005-16. Although the historical model is not a great valuation for tech stocks, because Verizon lies in the telecom sector, the historical model still provides a good valuation for their company. However, I weighted this model only at 10% to not put any extra importance onto the model. Like the above model, I weighted EV/Sales, but also weighted the P/E ratio, both at 50%.

P/E Ratio

I placed 50% of the weight on the historical model on the P/E ratio. P/E ratio is a great way to measure the health of a company, and since Verizon is large, this ratio is especially useful. I used both the three year and 5-year averages in my valuation because although the 5 year considers more data, 2015 has a few outliers that were discussed in previous sections of this report. To get as much data as possible but also put less weight onto the outlier in 2015, I used both.

EV/Sales

I placed 50% of the weight of the historical model on EV/Sales. I weighted EV/Sales for the same reasons listed in the relative model. Additionally, sales are vital for a telecom company, so having both sales and debt accounted for in a valuation is important. I weighted each model at 50% since they both have relatively equal importance in determining the valuation for the historical model.

Catalysts for Long-Term Growth

In my research of Verizon Wireless, I have identified several catalysts for long-term growth. These are covered in more detail in previous sections of the report and in the Investor Presentation

- Verizon Wireless has substantial ESG Observations that will help them flourish in an increasingly aware society. They continue to set goals for future growth such as carbon neutrality by 2035, as well as generating renewable energy equivalent to 50% of their total electricity consumption in the next five years.
- Verizon Wireless has healthy finances that make them especially attractive for a telecom stock. Having healthy finances helps mitigate their monetary risks that come with the telecom sector.
- Verizon has continuous innovation that places them as a frontrunner for each technological advancement and is gearing up to launch new advancements with the quick-growing industry.

Risks to Projections and Expectations

While I have identified catalysts for the long-term growth of Verizon, there are risks to my assumptions that could affect their ability to provide returns in line with my projections and market expectations.

- Growing security threats combined with Verizon's history put them at risk of public scrutiny in a time where privacy issues have gained social traction.
- Fierce competition between rivals has narrowed the differences between services substantially, making Verizon's higher quality, higher price metric less enticing than cheaper alternatives.
- Overreliance on US markets may make it more difficult to break into the rest of the world, and the lack of diversification could set them up for a loss if the market falls.

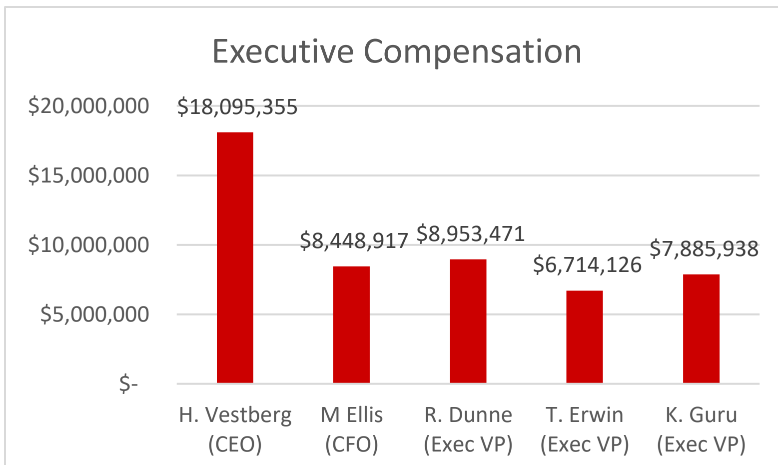
I am confident that Verizon's cash reserves significantly reduce these risks. Their future innovation plans also help to mitigate these risks, which is why I still recommend a buy.

Corporate Governance

The Board of Directors of Verizon Wireless currently consists of ten board members. Companies represented on the board include PayPal, Proctor & Gamble, and MetricStream Inc, to name a few.

Executive Members

- Hans Vestberg, Chairman and CEO
- Ronan Dunne, Exec. VP of Verizon Consumer
- Matthew D. Ellis, Exec. VP and CFO
- Tami Erwin, Exec. VP of Verizon Business
- James J. Gerace, CCO
- Guru Gowrappan, Exec. VP of Verizon Media
- Rose Stuckey Kirk, CCSRO
- Kyle Malady, Exec. VP and CTO
- Christy Pambianchi, Eec VP and CHRO
- Rima Qureshi, Exec. VP and CSO
- Diego Scotti, Exec.VP and CMO
- Craig Silliman, Exec VP. And CALPPO



Hans Vestberg joined Verizon in April 2017 as tge CTO after being the CEO of Ericsson for seven years. He replaced Lowell McAdam in August as the CEO in order to further their push for 5G.

Independent Members

- Clarence Otis Jr., Lead Director, Former Chairman and CEO of Darden Restaurants, Inc.
- Shellye L. Archambeau, Former CEO of MetricStream, Inc.
- Roxanne S. Austin, President and CEO of Austin Investment Adviors
- Mark T. Bertolini, Former Chariman and CEO of Aetna Inc.
- Vittorio Colao, Former Chief Executive of Vodafono Group Plc.
- Melanie L. Healey, Former Group President of The Proctor & Gamble Company
- Daniel H. Schulman, President and CEO of PayPal Holdings, Inc.
- Rodney E. Slater, Partner at Squire Patton Boggs LLP
- Gregory G. Weaver, Former Chairman and Chief Executive Officer of Deloitte and Touche LLP

Environmental, Social, and Governance (ESG) Observations

Verizon Wireless has an increasing presence with ESG observations. In fact, they list their ESG highlights as part of their business strategy and company values, showing their dedication to the practice. They state, "Our business stategy and company values are aligned with achieving our corporate purpose and designed to serve all of our stakeholders, inlcuding shareholders, customers, employees, and society." They have continued to be an ESG pioneer in the telecom industry, with some rather large goals for the coming future, with new goals constantly being set.

They are committed to building stong governance, and strive for transparancy to their stakholders. As an example, they created an executive-led, cross-functional ESG team in 2019 to further their efforts on reporting and engagement, human rights, digital trust and safety, and environmental sustainability.

They also describe how they've continued to strengthen their commitment to enviornmental sustanability with abitious carbon-neutrality goals. They aim to be completely carbon neutral by 2035, budiling off their goal to generate renewable energy equivalent to 50% of their total electricity consumption by 2025. They are currently on track to reach their goal of emissions reductions by September 2021.

They have also taken steps to involve themselves in social issues. They've addressed barriers to digital incusion through their education initiavive by providing students with free devices, internet access, and technology-driven curriculum to continue to improve learning in a remote environment. In fact, in 2019 they launched their first 5G-enabled Verizon Innovative Learning classrooms with the goal to bring 5G techlology to 100 underserved middle schools. They have adapted the environment of this goal during 2020, but plan to continue their efforts into 2021.

Investment Summary

Overall, Verizon delivers strong potential for growth in a growth-oriented industry. With the societal desire for faster, rapidly advancing technology, Verizon is in an excellent position and holds the capabilities to push themselves not only to global 5G, but to continue the evolution of tech. While the industry competition is fierce, Verizon's cash and capital allocations puts them in the best position to tackle new challenges that society seeks. They have made efforts to combat social issues such as climate change, and have consistently given out dividends, making them desirable even after public scrutiny with past security issues. When comparing Verizon with AT&T, Verizon has stronger metrics and is better equipped to handle the growth of the telecom industry in a constantly changing environment. This analysis leads me to the conclusion that Verizon is well positioned for growth and to continue to serve the demands of their customers. Given our current holding of AT&T, I advise that we buy Verizon with the intention to sell our shares of AT&T.

***Disclosure**: I have no positions in any stocks mentioned, and no plans to initiate any positions within the next 72 hours.*

I wrote this report myself, and it expresses my own opinions. I am not receiving compensation for it. I have no business relationship with any company whose stock is mentioned in this equity report. This report is written explicitly for the Oregon State Investment Group; however, I hold the right to distribute this document to potential employers or for other educational purposes as a sample of my work.

Signed:

Dana Welty

[1/5/2021]

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Appendix

Valuation

VZ
Verizon Wireless

Valuation

Valuation Method	Value	MoS	Weight	Current Price	Intrinsic Value	Price Target	
PGM	742.40	*1176.9 %*	0.0 %	28.14	69.37	1/8/2022	71.52
EV/EBITDA	88.45	*52.1 %*	45.0 %	38.14	70.67	1/8/2023	74.67
EV/Sales	73.47	*26.4 %*	0.0 %	48.14	71.94	1/8/2024	77.97
RIM	252.70	*334.6 %*	0.0 %	**58.14**	**71.94**	1/8/2025	81.41
DDM	179.33	*208.5 %*	0.0 %	68.14	70.67	1/8/2026	85.01
GGM	176.45	*203.5 %*	0.0 %	78.14	69.37		
Relative	54.11	*(6.9)%*	45.0 %	88.14	68.49		
Historical	43.42	*(25.3)%*	10.0 %				
Intrinsic Value Per Share	**68.49**	***17.8 %***	*100.0 %*				
Market Price	**58.14**						
Cost of Capital	**3.67 %**						

Recommendation	
Porfolio	Large-Cap
Date of Pitch	1/8/2021
Analyst	Dana Welty
Coverage Type	Initiation
Buy/Hold/Sell	Buy
Update Frequency	
Next Earnings Date (Q?)	

Summary

With a price target of $68.49 per share, I am recommending a Buy

Forecasts & DCF

VZ

Verizon Wireless

Forecasts

# of Years Discounted						0.75	1.75	2.75	3.75	4.75		Underlying Assumptions				
Period Ending:	**2015A**	**2016A**	**2017A**	**2018A**	**2019A**	**2020E**	**2021E**	**2022E**	**2023E**	**2024E**	**Growth**	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**
Income Statement:																
Operating Revenues	**131,620**	**125,980**	**126,034**	**130,863**	**131,868**	**130,549**	**133,160**	**137,155**	**141,270**	**145,508**	Revenue Growth	(1.00)%	2.00 %	3.00 %	3.00 %	3.00 %
Operating Expenses																
Cost of services (exclusive of items shown below)	29,438	29,186	29,409	32,185	31,772	31,332	31,958	32,917	33,905	34,922	% of Revenue	24.00 %	24.00 %	24.00 %	24.00 %	24.00 %
Wireless cost of equipment	23,119	22,238	22,147	23,323	22,954	22,977	23,436	24,139	24,863	25,609	% of Revenue	17.60 %	17.60 %	17.60 %	17.60 %	17.60 %
Total cost of products sold	52,557	51,424	51,556	55,508	54,726	54,309	55,395	57,057	58,768	60,531						
Gross Profit	**79,063**	**74,556**	**74,478**	**75,355**	**77,142**	**76,241**	**77,766**	**80,099**	**82,502**	**84,977**						
Selling, general and administrative expense	29,986	31,569	28,592	31,083	29,896	30,026	29,961	30,860	31,786	32,739	% of Revenue	23.00 %	22.50 %	22.50 %	22.50 %	22.50 %
Depreciation and amortization expense	16,017	15,928	16,954	17,403	16,682	17,102	17,444	17,967	18,506	19,062	% of Revenue	13.10 %	13.10 %	13.10 %	13.10 %	13.10 %
Media goodwill impairment	-	-	-	4,591	186	-	-	-	-	-	% of Revenue	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Total Operating Expenses	98,560	98,921	98,609	108,585	101,490	101,437	102,800	105,884	109,060	112,332						
Operating Income	33,060	27,059	27,425	22,278	30,378	29,112	30,361	31,271	32,210	33,176						
Equity in losses of unconsolidated businesses	(86)	(98)	(77)	(186)	(15)	(65)	(67)	(69)	(71)	(73)	% of Revenue	(0.05)%	(0.05)%	(0.05)%	(0.05)%	(0.05)%
Other expense, net	186	(1,599)	(2,021)	2,364	(2,900)	(653)	(666)	(686)	(706)	(728)	% of Revenue	(0.50)%	(0.50)%	(0.50)%	(0.50)%	(0.50)%
EBIT	**33,160**	**25,362**	**25,327**	**24,456**	**27,463**	**28,394**	**29,628**	**30,517**	**31,433**	**32,375**						
Interest expense	(4,920)	(4,376)	(4,733)	(4,833)	(4,730)	(4,308)	(4,927)	(5,075)	(5,227)	(5,384)	% of Revenue	(3.30)%	(3.70)%	(3.70)%	(3.70)%	(3.70)%
Income Before Provision For Income Taxes	**28,240**	**20,986**	**20,594**	**19,623**	**22,733**	**24,086**	**24,701**	**25,442**	**26,206**	**26,992**						
Effective Tax Rate	34.93 %	35.16 %	48.34 %	18.26 %	12.95 %	24.00 %	24.00 %	24.00 %	24.00 %	24.00 %						
Provision for income taxes	9,865	7,378	9,956	3,584	2,945	5,781	5,928	6,106	6,289	6,478						
Net Income	18,375	13,608	30,550	16,039	19,788	18,306	18,773	19,336	19,916	20,514						
Net income attributable to noncontrolling interests	496	481	449	511	523	522	533	549	565	582	% of Revenue	0.40 %	0.40 %	0.40 %	0.40 %	0.40 %
Net income attributable to Verizon	17,879	13,127	30,101	15,528	19,265	17,783	18,240	18,788	19,351	19,932						
Net Income	**18,375**	**13,608**	**30,550**	**16,039**	**19,788**	**18,306**	**18,773**	**19,336**	**19,916**	**20,514**						
Net income attributable to Verizon (USD per share)	4.38	3.22	7.37	3.76	4.66											
Weighted-average shares outstanding (in shares)	4,085	4,080	4,084	4,128	4,138											
Net income attributable to Verizon (USD per share)	**4.37**	**3.21**	**7.36**	**3.76**	**4.65**	**4.30**	**4.39**	**4.51**	**4.64**	**4.77**						

VZ

Verizon Wireless

Forecasts

# of Years Discounted						0.75	1.75	2.75	3.75	4.75		Underlying Assumptions				
Period Ending:	**2015A**	**2016A**	**2017A**	**2018A**	**2019A**	**2020E**	**2021E**	**2022E**	**2023E**	**2024E**	**Growth**	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**
Weighted-average shares outstanding (in shares)	4,085	4,080	4,084	4,128	4,138											
Net income attributable to Verizon (USD per share)	**4.37**	**3.21**	**7.36**	**3.76**	**4.65**	**4.30**	**4.39**	**4.51**	**4.64**	**4.77**						
Dividends per share	2.23	2.29	2.34	2.39	2.44											
Weighted-average shares outstanding (in shares)	4,093	4,086	4,089	4,132	4,140	4,140	4,151	4,161	4,172	4,182	% Growth	0.01 %	0.25 %	0.25 %	0.25 %	0.25 %
Balance Sheet:																
Cash and cash equivalents	4,470	2,880	2,079	2,745	2,594	2,525	2,576	2,653	2,733	2,815	% Total Current Assets	7.30 %	7.30 %	7.30 %	7.30 %	7.30 %
Short-term investments	350	-	-	-	-	-	-	-	-	-	% of Revenue	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Total current assets	22,355	26,395	29,913	34,636	37,473	34,596	35,287	36,346	37,436	38,560	% Revenue	26.50 %	26.50 %	26.50 %	26.50 %	26.50 %
Debt maturing within one year	6,489	2,645	3,453	7,190	10,777	7,193	7,337	7,557	7,784	8,017	% Total Current Liabilities	19.00 %	19.00 %	19.00 %	19.00 %	19.00 %
Total current liabilities	35,052	30,340	33,037	37,930	44,868	37,859	38,616	39,775	40,968	42,197	% of Revenue	29.00 %	29.00 %	29.00 %	29.00 %	29.00 %
Statement of Cashflows:																
Depreciation and amortization expense	16,017	15,928	16,954	17,403	16,682	16,971	17,311	17,830	18,365	18,916	% of Revenue	13.00 %	13.00 %	13.00 %	13.00 %	13.00 %
Capital expenditures (including capitalized software)	(17,775)	(17,059)	(17,247)	(16,658)	(17,939)	(18,016)	(18,243)	(18,242)	(18,789)	(19,353)	% of Revenue	(13.80)%	(13.70)%	(13.30)%	(13.30)%	(13.30)%

Capital Structure		
MV of Equity	*62.5 %*	240,700
Preferred Shares	*0.0 %*	-
BV of Debt	*37.5 %*	144,167
Operating Leases	*8.9 %*	34,377
Long-term debt	*28.5 %*	109,790
CAPM Assumptions	***mrkt***	
Beta	0.53	
Equity Risk Premium	5.2 %	
Risk Free Rate for Local Currency	1.7 %	
WACC Assumptions	***CAPM***	
Cost of Equity	4.4 %	
Cost of Preferred Shares	0.0 %	
Cost of Debt	3.2 %	
Credit Rating	Baa1	
Default Spread	1.5 %	
LT Credit Yield	3.2 %	
Cost of Capital	***3.7 %***	

Valuation	**PGM**	**EV/EBITDA**	**EV/Sales**
∑ of PV of Future Cash Flows	101,002	101,002	101,002
Terminal Tax Rate	24.0 %	24.0 %	24.0 %
Terminal Growth Rate	3.0 %	*(1.3)%*	*(2.1)%*
Exit Multiple	n/a	9.4 x	2.8 x
PV of Terminal Value	3,114,613	407,273	345,242
Enterprise Value	3,215,615	508,275	446,244
+ C&CE	2,594	2,594	2,594
+ Investments & Other		-	-
- Debt	144,167	144,167	144,167
- Minority Interests	523	523	523
- Preferred Shares	-	-	-
Equity Value	3,073,519	366,179	304,148
Shares Outstanding (Diluted)	4,140	4,140	4,140
Intrinsic Value Per Share	**742.40**	**88.45**	**73.47**

Relative Model

VZ

Verizon Wireless

Relative

Relative Model Inputs	
Discount Period	0.75
Sales (ntm)	130,549.32
EPS (ntm)	4.42
Book Value (ntm)	72,587.64
EPS Growth (5 yr exp.)	(0.597)%
EBITDA (ntm)	45,366
Cost of Equity	4.4 %
Cost of Capital	3.7 %
Custom Ratio	
C&CE (mrq)	2,594
Investments & Other (mrq)	-
LT Debt (mrq)	109,790
Minority Interest (mrq)	523
Preferred shares (mrq)	-
Diluted Shares (mrq)	4,140

Relative Model															
Ticker	VZ	MMM	ATT	CVX	HD	PG	INTC	MSFT	TMUS	V	Multiple	Value	Discounted	MoS	Weight
P/E (ttm)	13.3 x	20.5 x	19.1 x	43.8 x	23.3 x	26.3 x	9.3 x	35.9 x	50.2 x	42.7 x	28.4 x	125.50	121.50	108.98 %	
P/S (ttm)	1.9 x	3.2 x	1.2 x	1.7 x	2.3 x	5.0 x	2.6 x	11.6 x	2.4 x	21.2 x	1.6 x	49.38	47.81	(17.77)%	50.0 %
P/BV (mrq)	3.7 x	8.5 x	1.2 x	1.4 x	188.8 x	7.2 x	0.6 x	13.7 x	2.6 x	14.8 x	1.6 x	27.83	26.94	(53.67)%	
PEG (5 yr expected)	3.99	3.18	7.47	0.89	2.28	4.74	1.78	2.57	1.78	3.52	5.8 x	(15.20)	(14.72)	(125.31)%	
EV/EBITDA (ttm)	8.8 x	13.6 x	7.2 x	39.1 x	15.7 x	59.8 x	5.5 x	83.9 x	14.7 x	31.1 x	9.4 x	77.25	74.49	28.13 %	
EV/Sales (ttm)	2.9 x	3.7 x	2.2 x	6.7 x	2.5 x	18.9 x	2.7 x	38.8 x	4.3 x	21.5 x	2.8 x	62.78	60.41	3.90 %	50.0 %
Weight			70.0 %						30.0 %		Intrinsic Value Per Share		54.11	(6.93)%	*100.0 %*

Additional Information										
Ticker	VZ	MMM	ATT	CVX	HD	PG	INTC	MSFT	TMUS	V
Beta	0.53	0.92	0.67	1.33	1.05	0.36	0.73	0.8	0.5	1.0
Debt/Equity (mrq)	364.3 %	171.3 %	96.2 %	26.4 %	2673.9 %	65.2 %	49.0 %	67.4 %	159.1 %	68.1 %
Return on Equity	31.5 %	43.8 %	6.4 %	(8.0)%	5514.4 %	28.9 %	29.5 %	41.4 %	6.0 %	30.7 %
Return on Assets	8.2 %	9.6 %	3.4 %	(1.3)%	20.4 %	9.1 %	11.1 %	12.1 %	3.8 %	11.5 %
Market Cap ($BN):	240.70	100.67	204.94	164.26	289.87	341.49	194.49	1,680.00	164.98	460.06

Historical Model

VZ

Verizon Wireless

Historical

Year	2015A	2016A	2017A	2018A	2019A	2020E
Sales	131,620	125,980	126,034	130,863	131,868	130,549
EBIT	33,160	25,362	25,327	24,456	27,463	28,394
D&A	16,017	15,928	16,954	17,403	16,682	16,971
EBITDA	49,177	41,290	42,281	41,859	44,145	45,366
Minority Interests	496	481	449	511	523	522
Net Income	18,375	13,608	30,550	16,039	19,788	18,306
LT Debt	103,240	105,433	113,642	105,873	100,712	109,790
C&CE	4,470	2,880	2,079	2,745	2,594	2,525
Book Value	17,842	24,032	44,687	54,710	62,835	72,588
Preferred Shares	-	-	-	-	-	-
Diluted Shares	4,093	4,086	4,089	4,132	4,140	4,140
Sales/Share	32.16	30.83	30.82	31.67	31.85	31.53
EBITDA/Share	12.01	10.11	10.34	10.13	10.66	10.96
Minority Interest/Share	0.12	0.12	0.11	0.12	0.13	0.13
EPS	4.49	3.33	7.47	3.88	4.78	4.42
LT Debt/Share	25.22	25.80	27.79	25.62	24.33	26.52
C&CE/Share	1.09	0.70	0.51	0.66	0.63	0.61
BV/Share	4.36	5.88	10.93	13.24	15.18	17.53
Preferred/Share	-	-	-	-	-	-
High Price	39.49	46.55	46.89	55.75	59.47	
P/S	1.2 x	1.5 x	1.5 x	1.8 x	1.9 x	
P/E	8.8 x	14.0 x	6.3 x	14.4 x	12.4 x	
P/B	9.1 x	7.9 x	4.3 x	4.2 x	3.9 x	
EV/Share	63.75	71.77	74.28	80.83	83.30	
EV/EBITDA	5.3 x	7.1 x	7.2 x	8.0 x	7.8 x	
EV/Sales	2.0 x	2.3 x	2.4 x	2.6 x	2.6 x	
Low Price	33.86	35.79	37.19	41.08	49.49	
P/S	1.1 x	1.2 x	1.2 x	1.3 x	1.6 x	
P/E	7.5 x	10.7 x	5.0 x	10.6 x	10.4 x	
P/B	7.8 x	6.1 x	3.4 x	3.1 x	3.3 x	
EV/Share	58.12	61.00	64.58	66.17	73.31	
EV/EBITDA	4.8 x	6.0 x	6.2 x	6.5 x	6.9 x	
EV/Sales	1.8 x	2.0 x	2.1 x	2.1 x	2.3 x	

Used in Average?	Yes	Yes				
Average Period	3 Years	5 Years	Value	Discounted	MoS	Weight
P/S	1.53	1.42	46.51	45.03	(22.56)%	
P/E	9.83	10.01	43.85	42.46	(26.98)%	50.0 %
P/B	3.70	5.30	78.88	76.37	31.35 %	
EV/EBITDA	7.10	6.59	49.00	47.43	(18.41)%	
EV/Sales	2.34	2.22	45.85	44.39	(23.65)%	50.0 %
			Intrinsic Value Per Share	43.42	(25.31)%	*100.0 %*

DuPont

VZ

Verizon Wireless

DuPont

DuPont Analysis						
Period Ending	2015A	2016A	2017A	2018A	2019A	
NOPAT Margin	16.4 %	13.1 %	10.4 %	15.3 %	18.1 %	(EBIT*(1-effective tax rate))/Sales
Asset Turnover	0.5 x	0.5 x	0.5 x	0.5 x	0.5 x	Sales/Average Total Assets
Return on Assets	**8.3 %**	**6.2 %**	**4.8 %**	**7.2 %**	**8.2 %**	
Debt Burden	0.9 x	0.8 x	2.3 x	0.8 x	0.8 x	Net Income/(EBIT*(1-effective tax rate))
NOPAT Margin	16.4 %	13.1 %	10.4 %	15.3 %	18.1 %	(EBIT*(1-effective tax rate))/Sales
Asset Turnover	0.5 x	0.5 x	0.5 x	0.5 x	0.5 x	Sales/Average Total Assets
Leverage Ratio	14.6 x	11.0 x	6.1 x	5.1 x	4.6 x	Average Total Assets/Equity
Return on Equity	**103.0 %**	**56.6 %**	**68.4 %**	**29.3 %**	**31.5 %**	
NOPAT	21,576	16,446	13,083	19,989	23,905	EBIT*(1-effective tax rate)
Average Total Capitalization	60,541	64,733	79,165	80,292	81,774	Average(Long-Term Debt+Equity)
Return on Capital	**35.6 %**	**25.4 %**	**16.5 %**	**24.9 %**	**29.2 %**	

Profitability Ratios						
Period Ending	2015A	2016A	2017A	2018A	2019A	
Gross Margin	60.1 %	59.2 %	59.1 %	57.6 %	58.5 %	Gross Profit/Sales
Operating Margin	25.1 %	21.5 %	21.8 %	17.0 %	23.0 %	Operating Income/Sales
Profit Margin	14.0 %	10.8 %	24.2 %	12.3 %	15.0 %	Net Income/ Sales
Operating Costs to Sales	74.9 %	78.5 %	78.2 %	83.0 %	77.0 %	Operating Costs/Sales
Effective Tax Rate	34.9 %	35.2 %	48.3 %	18.3 %	13.0 %	Provision for Income Tax/EBT

Leverage Ratios						
Period Ending	2015A	2016A	2017A	2018A	2019A	
Debt to Total Assets	0.9 x	0.9 x	0.8 x	0.8 x	0.8 x	Total Liabilities/Total Assets
Total Debt to Equity	12.7 x	9.2 x	4.8 x	3.8 x	3.6 x	Total Debt/Equity
LT Debt to Equity	5.8 x	4.4 x	2.5 x	1.9 x	1.6 x	LT Debt/Equity
Times Interest Earned (TIE)	(6.7)x	(6.2)x	(5.8)x	(4.6)x	(6.4)x	Operating Income/Interest Expense
Degree of Operating Leverage	0.0 x	6.1 x	2904.5 x	(12.4)x	30.4 x	% change in profits/% change in sales

Liquidity Ratios						
Period Ending	2015A	2016A	2017A	2018A	2019A	
Current Ratio	0.6 x	0.9 x	0.9 x	0.9 x	0.8 x	Current Assets/Current Laiabilities
Acid Test/Quick Ratio	0.6 x	0.8 x	0.9 x	0.9 x	0.8 x	(Current Assets-Inventory)/Current Liabiliites
Net Working Capital to Sales	0.0 x	0.0 x	0.0 x	0.0 x	0.0 x	(Current Assets-Current Liabilities)/Sales

Payout Ratio	51.0 %	71.2 %	31.7 %	63.4 %	52.4 %	DPS/EPS
Plowback/Retention Ratio	49.0 %	28.8 %	68.3 %	36.6 %	47.6 %	1-Payout Ratio
Sustainable Growth Rate	50.4 %	16.3 %	46.7 %	10.7 %	15.0 %	ROE * Plowback Ratio
EVA	19,353	16,446	13,083	19,989	23,905	NOPAT - (Cost of Capital * Total Capitalization)
Accounts Receivable Turnover	6.3 x	5.5 x	5.1 x	5.2 x	5.2 x	Sales/Average Accounts Recivable
Average Daily Sales	360.6 x	345.2 x	345.3 x	358.5 x	361.3 x	Sales/365
Days' Sales Outstanding (DSO)	59.3 x	59.3 x	59.3 x	59.3 x	59.3 x	Average Accounts Receivable/ Average Daily Sales
Inventory Turnover	105.4 x	100.8 x	100.9 x	104.8 x	105.6 x	Sales/Average Total Inventory
Days' Inventory Outstanding (DIO)	3.5 x	3.6 x	3.6 x	3.5 x	3.5 x	365/Inventory Turnover
Accounts Payable Turnover	2.5 x	2.5 x	2.5 x	2.7 x	2.6 x	COGS/Average Accounts Payable
Days' Payable Outstanding (DPO)	145.1 x	148.3 x	148.0 x	137.4 x	139.4 x	365/Accounts Payable Turnover
Cash Conversion Cycle	(82.38)	(85.43)	(85.05)	(74.65)	(76.64)	DIO+DSO-DPO

Income Statement

VZ

Verizon Wireless

Statement of Operations

										Next Fiscal Year		
Period Ending:	2015A	2016A	2017A	2018A	2019A	FY2019 Q1	FY2019 Q2	FY2019 Q3	FY2019 Q4	Q1	Q2	Q3
Operating Revenues												
Service revenues and other	$ 114,696	$ 108,468	$ 107,145									
Wireless equipment revenues	16,924	17,512	18,889									
Operating Revenues	131,620	125,980	$ 126,034	$ 130,863	$ 131,868	$ 32,128	$ 32,071	$ 32,894		$ 31,610	$ 30,447	$ 31,543
Operating Expenses												
Cost of services (exclusive of items shown below)	29,438	29,186	29,409	32,185	31,772	7,792	7,702	7,902		0	0	0
Wireless cost of equipment	23,119	22,238	22,147	23,323	22,954 #	0	0	0		0	0	0
Selling, general and administrative expense	29,986	31,569	28,592	31,083	29,896	7,198	7,268	7,216		8,585	7,156	7,339
Depreciation and amortization expense	16,017	15,928	16,954	17,403	16,682	4,231	4,232	4,114		4,150	4,181	4,192
Media goodwill impairment	0	0	0	4,591	186	0	0	0		0	0	0
Total Operating Expenses	98,560	98,921	98,609	108,585	101,490	24,419	24,221	24,714		25,031	23,086	23,865
Operating Income	33,060	27,059	27,425	22,278	30,378	7,709	7,850	8,180		6,579	7,361	7,678
Equity in losses of unconsolidated businesses	(86)	(98)	(77)	(186)	(15)	(6)	(13)	(1)		(12)	(13)	(9)
Other expense, net	186	(1,599)	(2,021)	2,364	(2,900)	295	(1,312)	(110)		143	(72)	(774)
Interest expense	(4,920)	(4,376)	(4,733)	(4,833)	(4,730)	(1,210)	(1,215)	(1,146)		(1,034)	(1,089)	(1,044)
Income Before Provision For Income Taxes	28,240	20,986	20,594	19,623	22,733	6,788	5,310	6,923		5,676	6,187	5,851
Provision for income taxes	9,865	7,378	9,956	3,584	2,945	1,628	1,236	1,586		1,389	1,348	1,347
Net Income	18,375	13,608	30,550	16,039	19,788	5,160	4,074	5,337		4,287	4,839	4,504
Net income attributable to noncontrolling interests	496	481	449	511	523	128	130	143		131	139	147
Net income attributable to Verizon	17,879	13,127	30,101	15,528	19,265	5,032	3,944	5,194		4,156	4,700	4,357
Net Income	$ 18,375	$ 13,608	$ 30,550	$ 16,039	$ 19,788	$ 5,160	$ 4,074	$ 5,337		$ 4,287	$ 4,839	$ 4,504
Basic Earnings Per Common Share												
Net income attributable to Verizon (USD per share)	$ 4.38	$ 3.22	$ 7.37	$ 3.76	$ 4.66	$ 1.22	$ 0.95	$ 1.26		$ 1.00	$ 1.14	$ 1.05
Weighted-average shares outstanding (in shares)	4,085	4,080	4,084	4,128	4,138	4,138	4,138	4,138		4,139	4,139	4,140
Diluted Earnings Per Common Share												
Net income attributable to Verizon (USD per share)	$ 4.37	$ 3.21	$ 7.36	$ 3.76	$ 4.65	$ 1.22	$ 0.95	$ 1.25		$ 1.00	$ 1.13	$ 1.05
Dividends per share	$ 2.23	$ 2.29	$ 2.34	$ 2.39	$ 2.44					$ 0.62	$ 0.62	$ 0.63
Weighted-average shares outstanding (in shares)	4,093	4,086	4,089	4,132	4,140	4,140	4,139	4,140		4,141	4,141	4,142

Balance Sheet

Balance Sheet											*Next Fiscal Year*	
Period Ending:	2015A	2016A	2017A	2018A	2019A	FY2019 Q1	FY2019 Q2	FY2019 Q3	FY2019 Q4	Q1	Q2	Q3
Current assets												
Cash and cash equivalents	$ 4,470	$ 2,880	$ 2,079	$ 2,745	$ 2,594					$ 7,047	$ 7,882	$ 8,983
Short-term investments	350	$ 0	$ 0	$ 0	$ 0					$ 0		
Accounts receivable	13,457	17,513	23,493	25,102	25,429					24,852	23,742	23,846
Less Allowance for credit losses	0	0	0	0	0					1,055	1,070	1,229
Less Allowance for doubtful accounts	0	0	0	0	0					0	0	0
Accounts receivable, net (Note 1)	0	0	0	0	0					23,797	22,672	22,617
Inventories	1,252	1,202	1,034	1,336	1,422					1,633	1,289	1,457
Assets held for sale	792	882	0	0	0					0	0	0
Prepaid expenses and other	2,034	3,918	3,307	5,453	8,028					8,228	5,490	5,515
Total current assets	22,355	26,395	29,913	34,636	37,473					40,705	37,333	38,572
Property, plant and equipment	220,163	232,215	246,498	252,835	265,734					268,993	272,714	276,210
Less Accumulated depreciation	136,622	147,464	157,930	163,549	173,819					176,816	179,960	183,028
Property, plant and equipment, net	83,541	84,751	88,568	89,286	91,915					92,177	92,754	93,182
Investments in unconsolidated businesses	796	1,110	1,039	671	558					543	529	535
Wireless licenses	86,575	86,673	88,417	94,130	95,059					92,471	95,767	95,958
Goodwill	25,331	27,205	29,172	24,614	24,389					24,382	24,667	24,799
Other intangible assets, net	7,592	8,897	10,247	9,775	9,498					9,371	9,600	9,599
Operating lease right-of-use assets	0	0	0	0	22,694					0	0	0
Non-current assets held for sale	10,267	613	0	0	0					22,472	22,431	22,680
Other assets	7,718	8,536	9,787	11,717	10,141					12,379	10,178	11,669
Total assets	244,175	244,180	257,143	264,829	291,727					294,500	293,259	296,994
Current liabilities												
Debt maturing within one year	6,489	2,645	3,453	7,190	10,777					11,175	6,651	5,770
Accounts payable and accrued liabilities	19,362	19,593	21,232	22,501	21,806					17,419	19,297	17,391
Liabilities related to assets held for sale	463	24	0	0	0					0		
Current operating lease liabilities	0	0	0	0	3,261					3,331	3,270	3,494
Other current liabilities	8,738	8,102	8,352	8,239	9,024					9,132	9,668	9,530
Total current liabilities	35,052	30,340	33,037	37,930	44,868					41,057	38,886	36,185
Long-term debt	103,240	105,433	113,642	105,873	100,712					106,561	106,190	109,790
Employee benefit obligations	29,957	26,166	22,112	18,599	17,952					17,617	17,821	18,756
Deferred income taxes	45,484	45,964	31,232	33,795	34,703					33,709	33,798	34,567
Non-current operating lease liabilities	959	0	0	0	18,393					18,117	18,158	18,155
Other liabilities	11,641	12,245	12,433	13,922	12,264					15,786	14,293	13,011
Total long-term liabilities	0	189,808	179,419	172,189	184,024					191,790	190,260	194,279
Total liabilities	226,333	220,148	212,456	210,119	228,892					232,847	229,146	230,464
Commitments and Contingencies												
Equity												
Series preferred stock ($0.10 par value; 250,000,000 shares authorized; none issued)										0	0	0
Common stock ($0.10 par value; 6,250,000,000 shares authorized in each period; 4,291,433,646 issued in each period)	424	424	424	429	429					429	429	429
Additional paid in capital	11,196	11,182	11,101	13,437	13,419					13,302	13,281	13,404
Retained earnings	11,246	15,059	35,635	43,542	53,147					54,557	56,746	58,473
Accumulated other comprehensive income	550	2,673	2,659	2,370	998					(1,502)	(1,274)	(812)
Common stock in treasury, at cost (155,605,527 and 159,400,267 shares outstanding)	(7,416)	(7,263)	(7,139)	(6,986)	(6,820)					(6,725)	(6,722)	(6,721)
Deferred compensation – employee stock ownership plans and other	428	449	416	353	222					149	237	296
Noncontrolling interests	1,414	1,508	1,591	1,565	1,440					1,443	1,416	1,461
Total equity	17,842	24,032	44,687	54,710	62,835					61,653	64,113	66,530
Total liabilities and equity	$ 244,175	$ 244,180	$ 257,143	$ 264,829	$ 291,727					$ 294,500	$ 293,259	$ 296,994
Common stock, shares issued (in shares)											4,291,433,646	4,291,433,646

Statement of Cash Flows

Statement of Cash Flows											Next Fiscal Year	
Period Ending:	2015A	2016A	2017A	2018A	2019A	FY2019 Q1	FY2019 Q2	FY2019 Q3	FY2019 Q4	Q1	Q2	Q3
Cash Flows from Operating Activities												
Net Income	$ 18,375	$ 13,608	$ 30,550	$ 16,039	$ 19,788	$ 5,160	$ 9,234	$ 14,571		$ 4,287	$ 9,126	$ 13,630
Adjustments to reconcile net income to net cash provided by operating activities:												
Depreciation and amortization expense	16,017	15,928	16,954	17,403	16,682	4,231	8,463	12,577		4,150	8,331	12,523
Employee retirement benefits	(1,747)	2,705	440	(2,657)	(284)	(195)	(294)	(105)		(1)	(32)	867
Deferred income taxes	3,516	(1,063)	(14,463)	389	1,232	459	588	1,070		(87)	(120)	530
Provision for expected credit losses	1,610	1,420	1,167	980	1,588	319	738	1,131		553	831	1,100
Equity in losses of unconsolidated businesses, net of dividends received	127	138	117	231	74	21	50	64		26	46	67
Net loss on sale of divested businesses	0	0	(1,774)	0	94	0	0	94		0	0	0
Media goodwill impairment	0	0	0	4,591	186	0	0			0	0	0
Changes in current assets and liabilities, net of effects from acquisition/disposition of businesses						(2,702)	(4,593)	(3,902)		(1,208)	3,297	1,345
Accounts receivable	(945)	(5,067)	(5,674)	(2,667)	(1,471)							
Inventories	(99)	61	168	(324)	(76)							
Other assets	942	449	0	0	0							
Prepaid expenses and other	0	0	27	37	(2,807)							
Accounts payable and accrued liabilities and Other current liabilities	2,545	(1,079)	(459)	1,777	(2,359)							
Discretionary employee benefits contributions	0	(186)	(3,411)	(1,679)	(300)	(300)	(300)	(300)		0	0	0
Net gain on sale of divested businesses	0	(1,007)	(1,774)	0	0	0	0	0		0	0	
Other, net	(1,314)	(3,097)	676	219	3,399	88	1,950	1,548		1,104	2,073	2,410
Net cash provided by operating activities	39,027	22,810	24,318	34,339	35,746	7,081	15,836	26,748		8,824	23,552	32,472
Cash Flows from Investing Activities						0	0	0				
Capital expenditures (including capitalized software)	(17,775)	(17,059)	(17,247)	(16,658)	(17,939)	(4,268)	(7,967)	(12,332)		(5,274)	(9,850)	(14,168)
Acquisitions of businesses, net of cash acquired	(3,545)	(3,765)	(5,880)	(230)	(29)	(25)	(28)	(29)		0	(399)	(507)
Acquisitions of wireless licenses	(9,942)	(534)	(583)	(1,429)	(898)	(104)	(199)	(299)		(210)	(1,801)	(1,987)
Proceeds from dispositions of businesses	48	9,882	3,614	0	28	0	0	27		0	0	0
Other, net	1,171	493	1,640	383	1,257	(406)	(395)	476		(1,496)	(74)	(1,807)
Net cash used in investing activities	(30,043)	(10,983)	(18,456)	(17,934)	(17,581)	(4,803)	(8,589)	(12,157)		(6,980)	(12,124)	(18,469)
Cash Flows from Financing Activities												
Proceeds from long-term borrowings	6,667	12,964	27,707	5,967	10,079	2,131	6,237	8,360		5,848	9,305	12,387
Proceeds from asset-backed long-term borrowings	0	4,986	4,290	4,810	8,576	1,117	3,982	3,982		2,844	2,844	4,439
Repayments of long-term borrowings and finance lease obligations	(9,340)	(19,159)	(23,837)	(10,923)	(17,584)	(2,963)	(9,630)	(12,486)		(1,700)	(8,533)	(8,853)
Repayments of asset-backed long-term borrowings	0	0	(400)	(3,635)	(6,302)	(813)	(2,817)	(5,273)		(2,229)	(4,612)	(6,726)
Decrease in short-term obligations, excluding current maturities	(344)	(149)	0	0	0							
Dividends paid	(8,538)	(9,262)	(9,472)	(9,772)	(10,016)	(2,489)	(4,981)	(7,474)		(2,547)	(5,090)	(7,636)
Purchase of common stock for treasury	(5,134)	0	0	0	0	0	0	0		0	0	0
Other, net	1,577	(2,797)	(4,439)	(1,824)	(2,917)	360	(834)	(1,410)		347	(146)	(1,348)
Net cash used in financing activities	(15,112)	(13,417)	(6,151)	(15,377)	(18,164)	(2,657)	(8,043)	(14,301)		2,563	(6,232)	(7,737)
Increase in cash, cash equivalents and restricted cash	(6,128)	(1,590)	(289)	1,028	1	(379)	(796)	290		4,407	5,196	6,266
Cash, cash equivalents and restricted cash, beginning of period	10,598	4,470	3,177	2,888	3,916	3,916	3,916	3,916		3,917	3,917	3,917
Cash, Cash equivalents and restricted cash, end of period (Note 1)	$ 4,470	$ 2,880	$ 2,888	$ 3,916	$ 3,917	$ 3,537	$ 3,120	$ 4,206		$ 8,324	$ 9,113	$ 10,183