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THE OHIO STATE UNIVERSITY
FISHER COLLEGE OF BUSINESS

WELLS FARGO
Together we'll go far

Valuation Date: 22 Mar 2019	**Ticker: WFC**	**Recommendation: Buy**
Share Price: $48.31	**Target Price: $56.86**	**Expected Return: 17.69%**
Exchange: NYSE	**Sector: Financials**	**Industry: Banking**

Executive Summary

Firm Introduction: **Wells Fargo & Co.** is a diversified bank providing lending, mortgages, investment advisory and other various financial services. Wells Fargo is regarded as a leading community bank with $1.89T in total assets; making them the 4th major bank and the 7th most profitable company in the US.[I]

Investment Summary: Coverage on Wells Fargo & Co. (WFC) is initiated with a **buy** recommendation and a one year price target of **$56.86**, offering an **expected upside of 17.69%** from the March 22nd closing price of $48.31.[A] Valuation was derived 50% from Market Multiples and 50% from a Discounted Free Cash Flow to Equity model. This recommendation was strongly influenced by the following core catalysts.

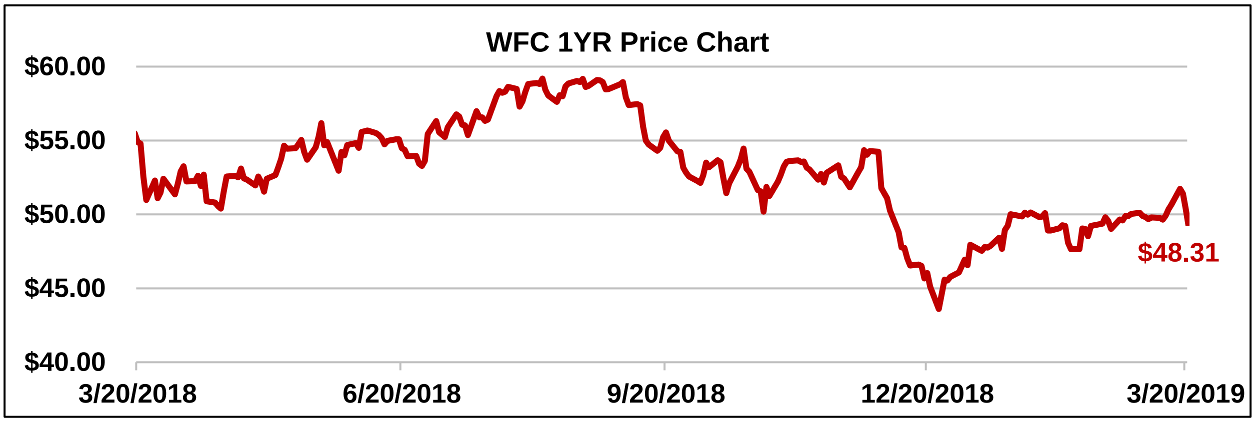
Strong Fundamentals: Despite a Federal Reserve mandated asset cap of $1.95T, Wells Fargo has been able to post sturdy **earnings growth**. Further, the bank is pursuing an array of cost cutting initiatives to create a lean, efficient institution with a healthy balance sheet that is positioned to weather volatility.
Excessive Criticism: The stock has been pummeled in recent years due to various scandals. However, as the prolific investor and largest holder of Wells Fargo (**Warren Buffett**) knows, a controversial stock can be a great investment. Such is the case here, as the company's fundamentals are quite attractive.
Regulatory Risk: Wells Fargo may not resist increased capital requirements as it is the best capitalized of the 8 largest banks with the highest capital to total assets ratio; as defined by the Basel III leverage ratio. The institution is **extremely resilient** and would welcome further regulations as they could level competition and further strengthen the US financial system.[B]

Company Profile	
Market Capitalization	$228.91B
Shares Outstanding	4.54B
52 Week High	$59.52
52 Week Low	$43.02
12 Month Total Return	-5.20%
Year to Date Return	9.37%
Average Daily Volume	20.63M
5 Year Adjusted Beta	1.056
Earnings Per Share	$4.12
Dividend Yield	3.57%
Insider Holdings	0.09%
Institutional Holdings	91.9%
United States Holdings	85.34%
Short Interest	0.64%
Number of Employees	258,700

Source: Bloomberg

Financial Analysis	
Price to Earnings Ratio	11.74
Price to Book Ratio	1.28
Price to Sales Ratio	2.36
Price to Cash Flow Ratio	6.43
Total Debt to Equity Ratio	169.91
Book Value Per Share	$37.75
Revenue Per Share	$21.06
Return on Assets	1.26%
Return on Equity	11.79%
Net Interest Margin	2.94%
Effective Tax Rate	19.8%

Source: Bloomberg



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Business Description

Company Narrative

Founded in 1852 during the peak of the California gold-rush, Wells Fargo provides banking, investment, and mortgage services for consumer and commercial customers.[E] Though their iconic logo reflects their stagecoach history, they have developed over time to serve more than **70 million customers** through 7,950 locations in all 50 states, more than 13,000 ATMs, mobile banking and offices in 37 countries.[C] With their nearly 259,000 team members, Wells Fargo serves almost one in three households in the U.S.[I]

Business Segmentation

The firm's primary lines of business can be characterized by Community Banking, Wholesale Banking and Wealth & Investment Management.[B] **Community Banking**, the firm's largest segment contributing 51% of total revenue, provides patrons with a full range of retail banking products; including checking and savings accounts, credit and debit cards, in addition to car, home, and small business lending.[A] **Wholesale Banking**, adding 31% of annual revenue, provides banking and financial services to commercial customers with yearly turnover exceeding $5 million.[D] The **Wealth & Investment Management** division offers personalized asset management and retirement products. This segment engulfs a number of businesses: Wells Fargo Advisors, the Private Bank, Abbot Downing, Wells Fargo Institutional Retirement & Trust and Wells Fargo Asset Management. This division generates the remaining 18% of total revenue.[A]

Revenue Mix

Most of Wells Fargo's revenue comes from interest income, representing 55% of its yearly turnover. Interest on loans accounts for 45% of total revenue, while interest on investment securities makes up the remaining 10%. Of its noninterest generating activities, investment fees are the most lucrative; comprising 15% of total revenue. Mortgage banking and service charges on deposit accounts both bring in 5% each.[A]

Crucial Headlines

Wells Fargo has launched a concentrated initiative to rebuild public trust after a series of scandals that cost the bank more than **$3 billion in penalties**.[B] In 2016, the firm was found guilty of creating unauthorized savings and checking accounts for customers. Employees were incentivized to partake in this fraudulent behavior in order to meet quotas and qualify for bonuses. As a result, the Federal Reserve put a temporary cap on Wells Fargo's assets at $1.95T while it attempts to improve its corporate governance practices.[E]

In 2018, the bank was fined $1 billion for charging auto loan customers above capped interest rates and a further $2.09 billion for selling harmful mortgages leading up to the 2008 Financial Crisis.[C] For most companies, $3 billion in fines would be a fatal blow. However, due to their healthy balance sheet and high degree of profitability, Wells Fargo has emerged stronger than ever. Unfortunately, most of the harm the bank has taken is in regards to its reputation. To combat negative consumer sentiment, they launched an extensive ad campaign which included promises to put client service first, modernize its banking systems and collaborate with communities.[D] It is also refunding thousands of customers affected by its indecency.[I]

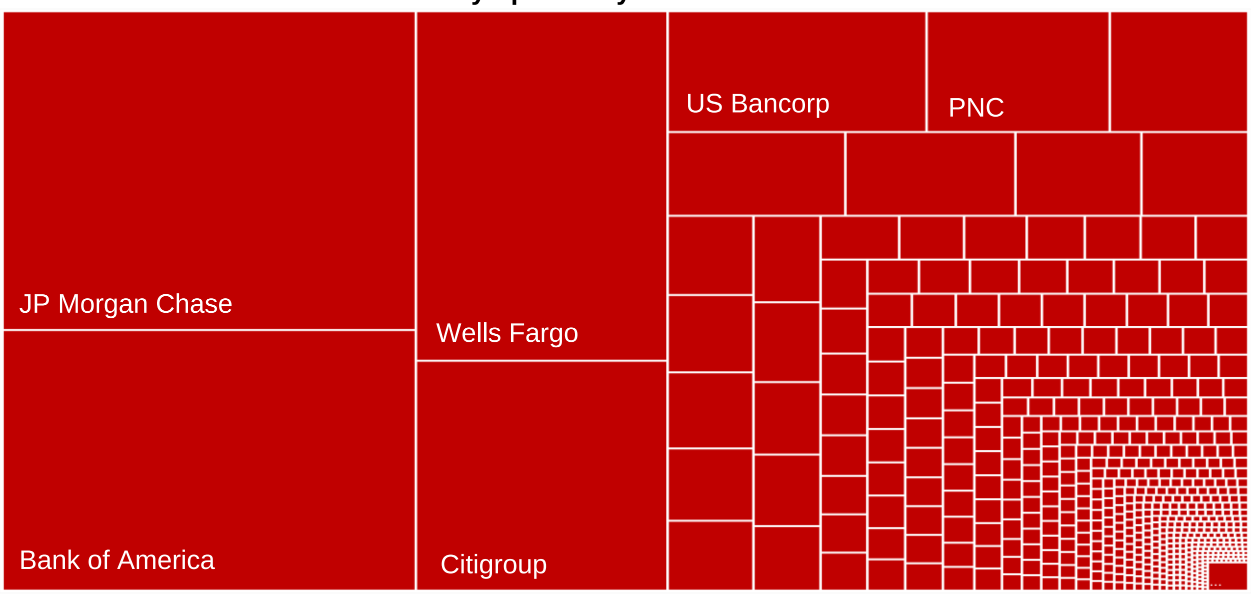
Fortunately, not all events surrounding the banking behemoth have been negative. Legendary investor **Warren Buffett** has been a longtime supporter of the firm's equity shares; first investing in Wells Fargo in 1989.[J] He came out multiple times in the wake of scandals; defending CEO Tim Sloan and ensuring other investors he still had faith in the firm's persistence. Today, Berkshire Hathaway remains the largest single owner of Wells Fargo, holding 9.89% of outstanding shares.[A]

Industry Overview

Market Assessment

The banking industry is sizable with annual industry revenue of **$342.09 billion** and total market capitalization of $1.92 trillion.[A] The 22 member banks represented in the S&P 500 comprise roughly **6.08%** of the index and play a significant role in a well-functioning economy.[K] The sector is undoubtedly mature, with a long and meaningful impact on American history. This ranges from J. P. Morgan's intervention in the Knickerbocker Trust during the Panic of 1907 to the fire sale of Bear Stearns to the financier's namesake over 100 years later. Banking is relatively concentrated with the six largest players- JP Morgan Chase, Bank of America, Wells Fargo, Citigroup, US Bancorp and PNC- contributing **57.76%** of industry revenue in addition to comprising 60.79% of public market capitalization.[A] Outside of these empires, there is a large number of regional and local banks. The top-heavy nature of the sector can be traced to the intense competition for scale and capital that drives return on equity.

Industry Splinter by Annual Revenue



Industry Growth

In 2018, the broad US banking industry experienced moderate year-over-year revenue growth of **4.57%** compared to S&P 500 member banks' growth of **1.73%**.[A] Heightened capital reserve regulations that resulted from the Financial Crisis- including Dodd-Frank in the US and Basel III internationally- continue to taper leverage levels. A lack of flexibility comparatively restricts earnings potential, while also limiting the possibility of catastrophic loss. To balance decelerating growth, many institutions are investing in their **digital and software capabilities** which attract customers in younger end-markets and drive efficiency.[B]

M&A Activity

Another common method of offsetting slowing organic growth has been through **consolidation** via merger and acquisition activities. The industry has seen its highest deal count and volume over the last five years during the first quarter of 2019.[A] This trend is to be expected late in the business cycle when firms have healthy balance sheets to purchase and combine with target companies. Notable recent transactions include the BB&T merger with SunTrust- the largest over the last 10 years- and the possible amalgamation of Germany's largest financial institutions: Deutsche Bank and Commerzbank.[L]

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Competitive Positioning

Relative Advantages

Wells Fargo is a leading retail banking institution that remains one of the **foremost deposit-winners** despite numerous public scandals. The firm has easily exceeded their implied cost of equity for decades and continues to appease shareholders despite adversity.[A] They succeed primarily by sticking to their core activities of personal banking and middle market commercial lending.[M] Unlike some of their large competitors, they are not a leader in the capital markets space; which is unnecessary considering they control the largest retail branch network in the United States at nearly 8,000 locations.[G] As a result of their comparatively lower volatility activities and domestic focus, Wells Fargo is able to pay less than many of their large competitors for balance sheet funding.[M] This has translated into a **higher revenue per asset** ratio and allows for a premium price to book value ratio compared to their competitors; both large and small.

Wells Fargo has created an extensive range of competitive advantages stemming from cost benefits due to scale in addition to intrinsic tradeoffs for customers moving their patronage. As a result of their tremendous size, the bank does not pay nearly as much for each marginal customer and sustains a wide variety of products.[H] Moreover, although Wells Fargo is the leading home loan originator to minority and low income borrowers according to HMDA data, they are an extremely conservative underwriter.[N] Evidence of which is apparent in their sturdy emergence of the Financial Crisis despite an acquisition of Wachovia in 2008 that increased their exposure to mortgage lending and real estate.[M] Further, the breadth of their products provide consumers all of their needs in a streamlined platform; creating inherent convenience.

Market Share

Wells Fargo comprises **.98%** of the S&P 500 index market capitalization and takes in 29.08% of core banking revenue amongst the 22 member banks.[K] Within the broad US banking sector, the firm represents 12.31% of market capitalization in addition to collecting 10.29% of total industry revenue.[A]

Select 2018 Acknowledgement		
Recognition	**Institution**	**Segment**
#1 Home Loan Originator to Minorities	**HDMA**	**Retail Lending**
#1 Home Loan Servicer	***Inside Mortgage Finance***	**Retail Lending**
#1 Debit Card Issuer	**Competitor Reports**	**Consumer Finance**
#1 Retail Deposits	**FDIC**	**Consumer Finance**
#1 Middle Market Banking	**Barlow Research**	**Middle Market Banking**
#1 Commercial Real Estate Lender	**Federal Reserve**	**Commercial Lending**
#2 US Annuity Sales	**Transamerica Roundtable**	**Wealth Management**

Organizational Strategy

In line with their commitment to make significant improvements across the bank, Wells Fargo has been making noteworthy changes to their business plan. With the Federal Reserve mandated asset-cap in place, the bank is seeking **cost efficiencies** by cutting its workforce by 5-10% over the next three years.[F] Wells Fargo also seeks to combine its private client and wealth brokerage units, which serve a very similar customer base, but with duplicate divisions.[C] It is also making meaningful, yet thoughtful, cuts in its extensive branch base; a common practice across the industry due to the rise of digital banking services and the fall of brick and mortar institutions.[B] **Electronic banking** is a favorable transition for Wells Fargo and their patrons as it allows the institution to offer most of the same core services at lower overhead costs while giving customers the flexibility of banking anywhere, at any moment.

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Investment Rationale

<u>Fundamental Drivers</u>

Cost Efficiency

Wells Fargo has been making sweeping changes to their cost base in order to improve the **profitability** of the firm in the face of regulatory constraints. This includes cutting approximately 13,250 to 26,500 positions as the bank transitions to the digital age.[D] Further, they will begin to pare down their number of branches- currently the largest network in the US with approximately 7,950 locations- to remove unprofitable centers.[C]

Strong Capitalization

Compared to their sizable competitors, Wells Fargo is incredibly **well capitalized** with the highest Basel III leverage ratio among the largest 8 US banks.[B] The result is a lower cost of capital for balance sheet funding in both the public markets and interbank lending. For example, Wells Fargo's subordinated bonds trade at miniscule premiums to the senior debt of banking luminary Goldman Sachs.[B] This can be explained by the comparably less cyclicality of their core business activities and relatively strong balance sheet.

Mobile Expansion

The bank has made tremendous strides to transition to a more **electronically advanced** firm. They have been recognized for their cybersecurity development which could spare their patrons from another scandal.[L] The firm strives to embrace "quantification" and automation in their business segments which drives efficiencies and decreases employment expenses.[G] Moreover, Wells Fargo has an industry leading mobile banking platform coupled with a massive branch base to retain technologically-challenged clients.[B]

<u>Macroeconomic Environment</u>

Interest Rate Uncertainty

Wells Fargo is among the few US banks that are positioned to benefit from further rate hikes that may occur with stronger economic growth. Further, with a fourth quarter 2018 base-case scenario of extended low rates, the bank is better **hedged** with a lower rate sensitivity than the majority of their peers.[C] For example, a parallel shift in the yield curve of 100 basis points could add between $900M to $1B to their bottom-line.[B]

Regulatory Burden

In 2016, the Federal Reserve imposed a $1.95T **asset cap** on Wells Fargo's balance sheet due to an investigation into their sales tactics.[E] Since, the firm has faced further scrutiny, with questions of their involvement in the financial crisis, their incentive schemes and their student lending practices among others.[A] Despite exorbitant legal fees and penalties, the firm has been able to grow earnings in the past two years and is well situated for future growth. The controversial nature of this stock makes it attractive.

Retail Growth

Despite lingering concerns of economic growth, the **retail banking** environment is beginning to improve for Wells Fargo, despite the firm's reputational hazards that likely are the result of excessive criticism. Key industry profitability metrics- including increased primary checking account growth and decreased attrition in consumer and small business customers- are beginning to be realized in the firm's income statement.[B] This can especially be traced to favorable economic growth in recent years as well as demographic trends.

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Valuation

Relative Valuation

Market Multiples are an effective method of comparing similar firms of a particular sub-sector, size and business focus to identify relative mispricing. The significant ratios of price to earnings, price to sales, price to book and price to cash flow were employed in this analysis.

The peer group for Wells Fargo is defined here as firms that derive at least **50%** of their revenue from the core activity of consumer banking and have market capitalization in excess of **$10 billion**. This consists of PNC, M&T, Fifth Third, KeyCorp and Huntington.

	Minimum	Maximum	Average	Current Multiple	Target Multiple	Target / Current	Target Price
P/E Ratio	8.28x	12.17x	10.39x	11.74x	11.42x	97.27%	$46.99
P/B Ratio	1.04x	1.51x	1.22x	1.28x	1.27x	99.22%	$47.93
P/S Ratio	2.16x	3.46x	2.64x	2.36x	2.63x	109.44%	$53.84
P/CF Ratio	6.27x	10.53x	7.63x	6.43x	7.38x	114.77%	$55.45

Notably, the previous characterization excludes some of the firm's **substantial competitors**- including JP Morgan Chase, Bank of America, Citigroup and US Bancorp- which receive a greater proportion of revenue from non-core activities such as investment banking and advisory. To rectify this oversight, a separate analysis was conducted to compare factors of size. This includes the current largest six banks in the US, excluding the product of the BB&T-SunTrust merger which is still in progress.

	Minimum	Maximum	Average	Current Multiple	Target Multiple	Target / Current	Target Price
P/E Ratio	9.29x	11.77x	10.72x	11.74x	11.42x	97.27%	$46.99
P/B Ratio	0.81x	1.73x	1.26x	1.28x	1.27x	99.22%	$47.93
P/S Ratio	1.69x	3.14x	2.59x	2.36x	2.63x	109.44%	$53.84
P/CF Ratio	4.17x	23.04x	9.83x	6.43x	7.38x	114.77%	$55.45

In respect to their peers in both groups, Wells Fargo is relatively cheap on a price to sales and price to cash flow basis, while they are comparatively expensive according to their price to earnings and price to book value multiples. This may denote that the firm does not need as much tangible value on their balance sheets and income statements as their peers to be attractive to the market. Further, it identifies that investors holding Wells Fargo's stock are receiving a greater amount of revenue and volume of cash flow per share than owners of the average comparable banking stock.

The summation of this analysis identifies Wells Fargo as slightly undervalued compared to their peers due to the magnitudes of ratio discrepancies. Further, utilizing consensus estimates for forward looking ratios on a one year time horizon, the bank is slightly inexpensive with a price target of **$51.05** compared to the current price of $48.31. Each of the four pertinent ratios were equally weighted to derive this relative value.

Valuation

Discounted Cash Flow Analysis

(in millions, except per share amounts)	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Total Revenue	$84,497	$85,861	$84,664	$87,560	$90,742	$94,198	$97,919	$101,898
Growth	4.59%	1.61%	-1.39%	3.42%	3.63%	3.81%	3.95%	4.06%
Operating Income	$32,120	$27,377	$28,538	$30,165	$32,035	$34,137	$36,461	$ 38,997
Operating Margin	38.01%	31.89%	33.71%	34.45%	35.30%	36.24%	37.24%	38.27%
Interest Income	$43,984	$47,029	$48,251	$51,151	$54,169	$57,300	$60,537	$ 63,870
Interest % of Sales	52.05%	54.77%	56.99%	58.42%	59.70%	60.83%	61.82%	62.68%
Taxes	$10,075	$ 4,917	$ 5,662	$ 5,973	$ 6,343	$ 6,759	$ 7,219	$ 7,721
Tax Rate	31.50%	18.10%	20.86%	19.81%	19.81%	19.81%	19.81%	19.81%
Net Income	$20,373	$20,554	$20,689	$21,964	$23,421	$25,063	$26,881	$ 28,869
Growth	-4.18%	0.89%	0.66%	6.16%	6.63%	7.01%	7.25%	7.39%

NPV of Cash Flow	$ 123,910
NPV of Terminal Value	$ 160,741
Projected Equity Value	$ 284,651
Current Price	$ 48.31
Implied equity value/share	$ 62.67
Free Cash Flow Yield	29.73%
Current P/E	11.74
Projected P/E	9.83
Shares Outstanding	4,541,951,820
Debt	$ 9,627
Cash	$ 678
Cash/share	$ 0.60

A discounted cash flow to equity analysis is somewhat more intricate as it involves carefully scrutinizing each line item of a firm's income statement, balance sheet and statement of cash flows in order to make assumptions about the future performance of the business. The summation of this analysis identifies Wells Fargo's equity as trading to a significant discount of **29.73%** compared to the current market value of $48.31 with an intrinsic value per share of $62.67.

The primary differences between the output of this analysis and consensus estimates over the coming year lie in the treatment of the Federal Reserve's asset cap which extends through 2019.[C] Sell-side analysts believe that- despite such a restriction and in the face of an increasingly pessimistic economic environment with an inverted yield curve- Wells Fargo will be able to declare year-over-year earnings growth in excess of 14.85%.[A] Although Wells Fargo may miss such a rosy projection, they will likely post **strong earnings growth** in the coming year due to the lack of cyclicality in their core business activities compared to their more sizable competitors. Their revenue is expected trounce estimates by nearly **$2 billion dollars**, but they may not be able to contain non-interest expenses such as employee benefits and salaries without making even steeper personnel cuts in the near-term; an action that would have unadvisable effects on company morale.

In the later years of the model, these forecasts differ from the consensus view in regards to the reliability of Wells Fargo's growth which drives the expected outsized return. Likewise, the company is recovering from tremendous sanctions with a healthy balance sheet and is projected here to grow within its sustainable growth rate; as identified by DuPont analysis. Further, a **conservative** discount factor of 11.63%- greater the capital asset pricing model rate of 9.76% to account for perceived quality- and cautious terminal growth rate of 1.15% were utilized to provide increased conviction in the intrinsic value of Wells Fargo's equity.

The amalgamation of these two valuation techniques, deriving 50% from Relative Valuation and 50% from a Discounted Free Cash Flow to Equity model, deliver a one-year price target of **$56.86**. Compared to the March 22nd price of $48.31, this represents a **$17.69%** expected return from an investment in Wells Fargo.

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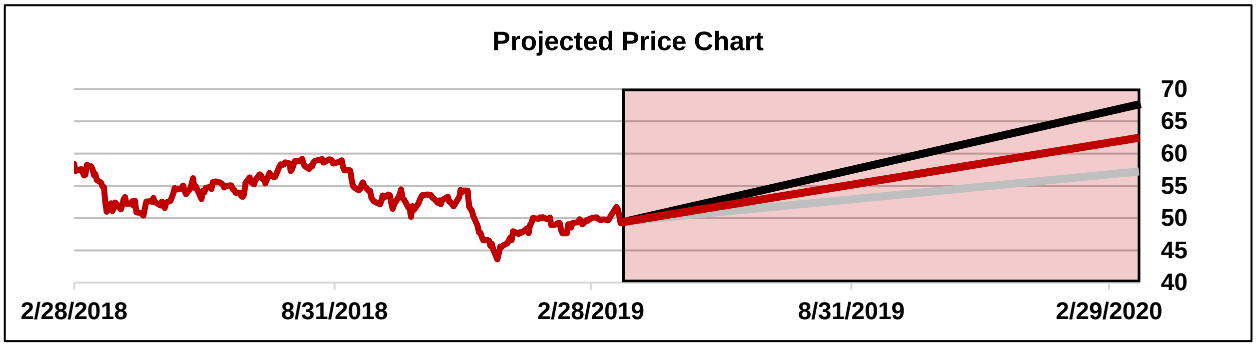
Valuation

Sensitivity Analysis

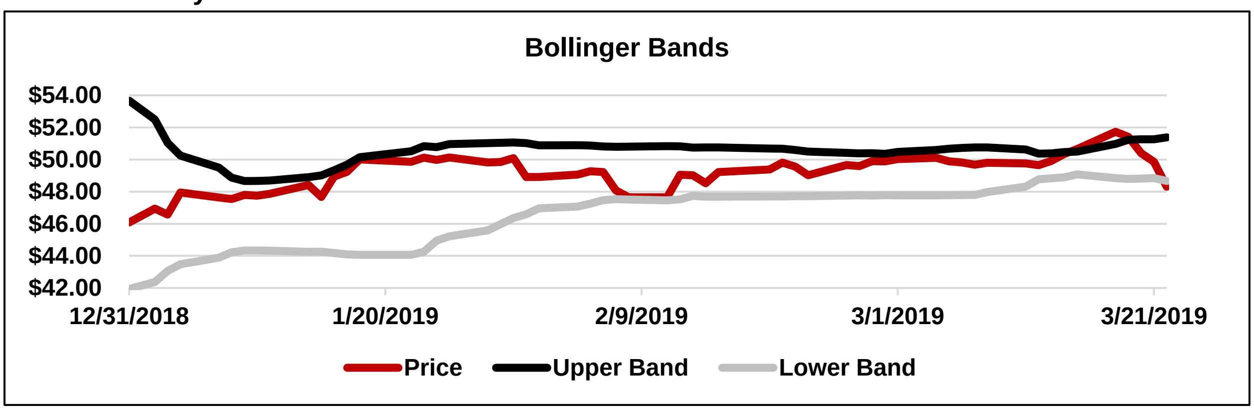
		Discount Factor				
		9.63%	10.63%	11.63%	12.63%	13.63%
Terminal Growth Rate	0.95%	53.26%	39.35%	28.21%	19.13%	11.61%
	1.05%	54.48%	40.30%	28.96%	19.74%	12.10%
	1.15%	55.73%	41.26%	29.73%	20.35%	12.60%
	1.25%	57.02%	42.25%	30.51%	20.98%	13.11%
	1.35%	58.33%	43.26%	31.30%	21.61%	13.63%

Scenario Analysis



Alternative cases provide context by comparing **cautious**, base assumptions to more drastic developments. These cases were administered symmetrically and represent both positive and negative changes to the key inputs. This analysis outputted a bullish price target of **$67.53** and a bearish price target of **$58.31**.

Technical Analysis



The use of Bollinger Bands is a technical analysis technique in which a set of lines are plotted that denote both positive and negative deviations of a given security to create a range in which it should trade the majority of time. When the security price breaches its lower bound, as Wells Fargo's equity has done here, it often indicates recent overselling. This could be the result of **market irrationality** and signal an optimal opportunity to establish a position. However, it should be noted that technical analysis is most effective in conjunction with proper fundamental backing; as is the case here for Wells Fargo.

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Financial Analysis

Ratio Analysis

	2014	2015	2016	2017	2018	2019E	2020E	2021E
Profitability								
Operating Margin	40.21%	39.09%	36.39%	30.97%	33.03%	34.45%	35.30%	36.24%
Net Income Margin	27.34%	26.60%	24.11%	23.94%	24.44%	25.08%	25.81%	26.61%
Payout Ratio	32.40%	35.29%	37.60%	37.26%	38.13%	38.09%	38.01%	37.93%
Growth								
Revenue Growth	0.34%	1.88%	4.60%	1.61%	-1.39%	3.42%	3.63%	3.81%
Diluted EPS Growth	5.40%	0.49%	-3.16%	2.76%	4.39%	6.16%	6.63%	7.01%
Dividend Growth	17.39%	9.26%	2.71%	1.65%	6.49%	6.13%	6.61%	6.99%
Credit								
Total Debt to EBIT Ratio	7.30x	8.83x	10.95x	11.99x	11.73x	11.67x	11.59x	11.38x
Net Debt to EBIT Ratio	0.90x	0.23x	2.03x	1.18x	2.85x	2.41x	2.16x	1.94x
Liquidity								
Debt to Equity Ratio	133.57%	153.21%	175.49%	157.77%	169.91%	158.12%	151.49%	142.68%
Debt to Capital Ratio	57.19%	60.50%	63.70%	61.21%	62.95%	60.83%	59.93%	57.71%
Debt to Assets Ratio	14.67%	16.62%	18.23%	16.82%	17.66%	18.37%	17.94%	17.38%

Profitability

The bank has struggled as of late due to the challenge of rebuilding their brand with incoming pressures from regulators, politicians and consumers. The result has been crumbling margins and a necessary payout hike to appease shareholders at a time when Wells Fargo needs to be investing in its own future. However, 2018 was an **inflection point** for the firm as it was able to meet core cost targets with minimal backlash.[B]

Growth

Wells Fargo has experienced weak revenue growth in recent years as the result of considerable sanctions that will be lifted mid-way through 2019.[E] Interest income has been able to offset slowing non-interest income in the past, but the removal of regulatory constraints will give the topline a needed boost.[H] Earnings growth has been crushed in the past by legal fees and penalties that are not expected to persist.[C] The cost cutting measures the firm has taken- including firing employees and terminating unproductive branches- will be fully realized as the resulting Wells Fargo is a more **lean institution**. Dividend growth is forecasted to move in tandem with earnings expansion due to a steady payout ratio that rewards loyal shareholders.

Credit

Another method of increasing earnings amidst headwinds for Wells Fargo has been growing the amount of debt on their balance sheet.[D] This could be a concerning measure for most banks to undertake late in the credit cycle. However, Wells Fargo is the best capitalized institution out of the largest US banks. As the firm expands their earnings, it may be optimal to pay down this debt at a slow pace to **bolster profitability**.

Liquidity

Over the past five years, the bank has increased their leverage ratio 7.85% while their value of equity has slightly declined.[A] Going forward, the bank is expected to stabilize their debt levels while their **underestimated equity value** is likely to expand. Their balance sheet will continue to experience tapered growth that could turn negative in the near-term as the firm disposes of non-core and unproductive assets.

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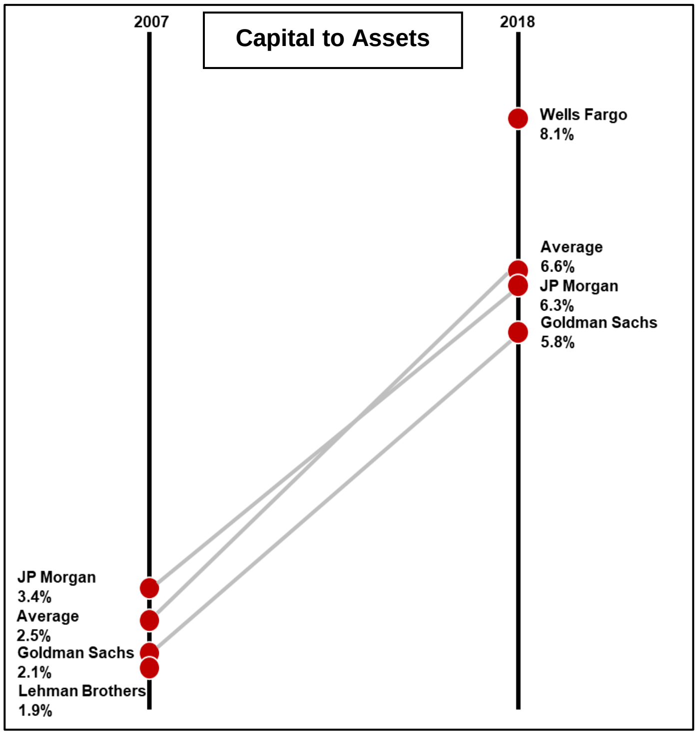
Investment Risks

Increased Regulation

After the Financial Crisis of 2008, when the Federal Reserve absorbed trillions of dollars of toxic assets from the balance sheets of large financial institutions and taxpayers spent billions more to bail out some of the most esteemed US firms, there has been residual tension between Wall Street, Main Street and Washington. Likewise, there has been plenty of political rhetoric surrounding the health of big banks and legislation to increase regulation. However, the venerable institution of Wells Fargo may not resist increased capital requirements as it is the best capitalized of the 8 largest banks with the highest capital to total assets ratio; as defined by the Basel III leverage ratio. The institution is **extremely resilient** and would welcome further requirements as they could act to level the competition and further strengthen the US financial system.[B]



Formidable Competition

The banking industry is mature, concentrated and **quite competitive**. Rivalry is expected to continue to increase near-term; accentuated by consolidation late in the business cycle which will likely persist.

Economic Environment

The **inversion** between the 3 month and 10 year US treasuries triggered a substantial market signal of a possible recession. This is worrisome for Wells Fargo as such an environment could squeeze revenue.[A]

Technology Lag

Although Wells Fargo is making vast strides in the digital space in regards to cybersecurity, mobile banking and operational efficiencies, they are at risk of falling behind without constant **innovation** and investment.

Reputation Destruction

Wells Fargo still suffers from the scandals relating to their weak corporate governance practices that have burned consumers in the past. They are actively trying to rebuild public trust but this will definitely take time.

Catastrophic Loss

Banks are highly complex financial institutions that are **highly leveraged** compared to most other business models. As a result, they are subject to tail events or rare occurrences that may result in magnified harm.

Leadership Misconduct

In the information age of enhanced scrutiny, senior managers and their actions are under constant watch by the public. However, CEO Tim Sloan is perceived as wonderful and even has the **Buffett Approval**.[J]

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Corporate Governance

Key Executives



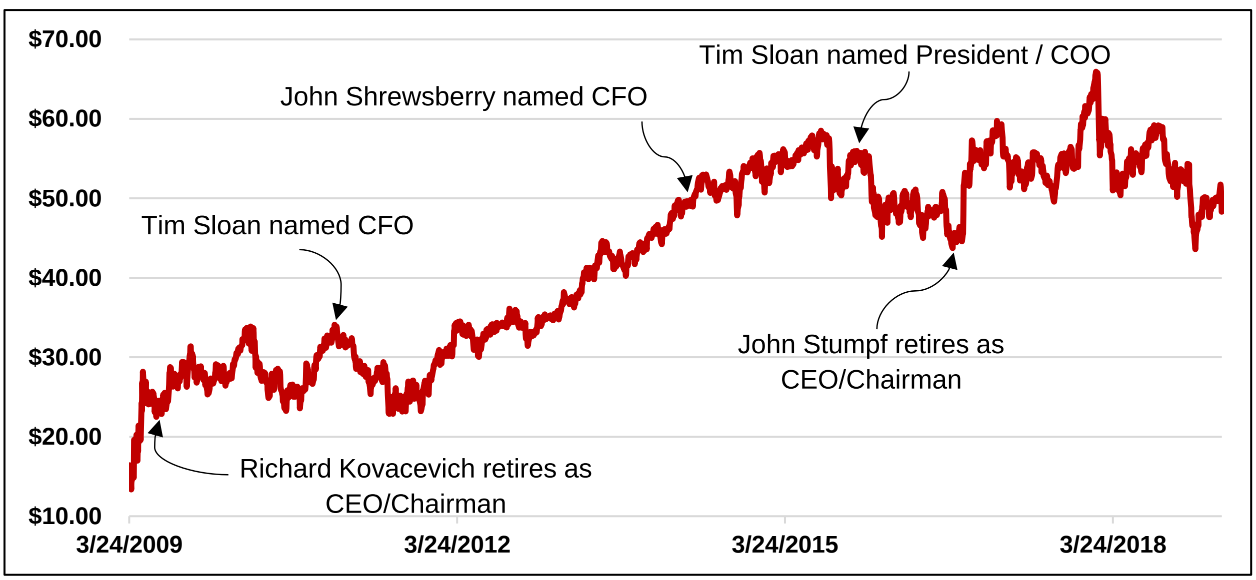


Tim Sloan CEO Tenure: 3.3 Years	John Shrewsberry CFO Tenure: 4.8 Years	Avid Modjtabai VP Innovation Tenure: 2.3 Years	Petros Pelos VP Wholesale Tenure: 2.3 Years	Mary Tabb Mack VP Consumer Tenure: 2.7 Years

Board Assessment

The board is comprised of 12 independent directors and CEO Tim Sloan. The group is unique from its peers in having 46.15% greater representation by women than average, in addition to limiting both executive and independent members from serving on multiple external boards. Further, due to poor corporate governance practices in the past, Wells Fargo's board has experienced higher than average turnover in the wake of scandal. These changes should be primarily seen as an advantage going forward, as the firm has a slew of **fresh faces** and highly educated minds that are ready to lead the company beyond its frustrating recent past. It will be up to these individuals to align employee incentives, put client service first, modernize their banking systems and collaborate with communities to rebuild Wells Fargo's reputation amongst the public.[F]

Leadership Impact



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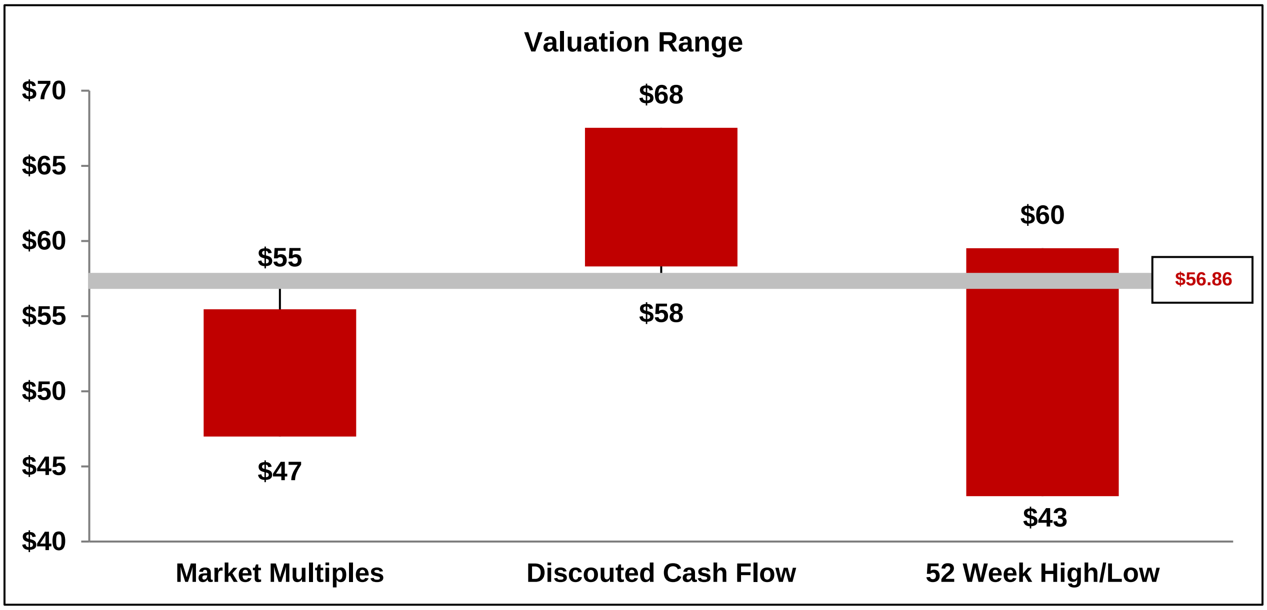
Investment Summary

Coverage on Wells Fargo & Co. (WFC) is initiated with a **buy** recommendation and a one year price target of **$56.86**, offering an **expected upside of 17.69%** from the March 22nd closing price of $48.31.[A] Valuation was derived 50% from Market Multiples and 50% from a Discounted Free Cash Flow to Equity model. The price target is within the 52 week trading range and represents an implied price to earnings ratio of **9.83x**. This recommendation was strongly influenced by the by a variety of fundamental and systematic catalysts.



Strong Fundamentals	Excessive Criticism	Regulatory Risk
Earnings Growth Despite Sanctions	Legal Issues are being Resolved	High Basel III Leverage Ratio
Cost Efficiencies from Labor and Brick & Mortar Disposal	Support of Legendary Investor Warren Buffett	Inexpensive Borrowing due to Tremendous Capitalization
Federal Reserve Asset Cap Lifted in 2019	Controversial Stocks can be Good Investments	Well Positioned for Further Regulation

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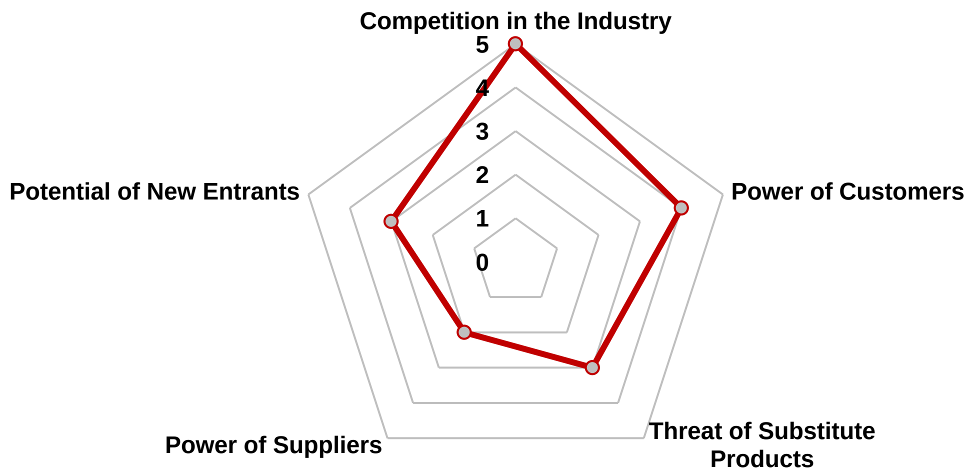
Appendix: Porter's Five Forces Industry Analysis



Appendix: Extended Relative Valuation

Peer Group by Core Activity:

	Wells Fargo	Average	PNC	M&T	Fifth Third	KeyCorp	Huntington
P/E Ratio	11.74x	10.39x	11.18x	12.17x	10.09x	8.28x	10.24x
P/B Ratio	1.28x	1.22x	1.25x	1.51x	1.07x	1.04x	1.24x
P/S Ratio	2.36x	2.64x	2.87x	3.46x	2.19x	2.16x	2.52x
P/CF Ratio	6.43x	7.63x	7.19x	10.53x	6.27x	6.49x	7.66x

Peer Group by Size & Scale:

	Wells Fargo	Average	JP Morgan	Bank of America	Citigroup	US Bancorp	PNC
P/E Ratio	11.74x	10.72x	11.16x	10.18x	9.29x	11.77x	11.18x
P/B Ratio	1.28x	1.26x	1.42x	1.07x	0.81x	1.73x	1.25x
P/S Ratio	2.36x	2.59x	2.68x	2.55x	1.69x	3.14x	2.87x
P/CF Ratio	6.43x	9.83x	23.04x	7.18x	4.17x	7.59x	7.19x

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Appendix: Extended Discounted Cash Flow Analysis (Base Case)

	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Interest income	$53,663.00	$58,909.00	$64,647.00	$69,640.53	$75,019.77	$80,814.52	$87,056.88	$ 93,781.41
Interest expense	$ 5,909.00	$ 9,352.00	$14,652.00	$16,483.50	$18,543.94	$20,861.93	$23,469.67	$ 26,403.38
Net interest income	$47,754.00	$49,557.00	$49,995.00	$53,157.03	$56,475.83	$59,952.59	$63,587.21	$ 67,378.03
Provision for credit losses	$ 3,770.00	$ 2,528.00	$ 1,744.00	$ 2,005.60	$ 2,306.44	$ 2,652.41	$ 3,050.27	$ 3,507.81
Net interest income after provision for credit losses	$43,984.00	$47,029.00	$48,251.00	$51,151.43	$54,169.39	$57,300.19	$60,536.94	$ 63,870.23
Noninterest income								
Service charges on deposit accounts	$ 5,372.00	$ 5,111.00	$ 4,716.00	$ 4,574.52	$ 4,437.28	$ 4,304.17	$ 4,175.04	$ 4,049.79
Trust and investment fees	$14,243.00	$14,495.00	$14,509.00	$14,799.18	$15,095.16	$15,397.07	$15,705.01	$ 16,019.11
Card fees	$ 3,936.00	$ 3,960.00	$ 3,907.00	$ 3,946.07	$ 3,985.53	$ 4,025.39	$ 4,065.64	$ 4,106.30
Other fees	$ 3,727.00	$ 3,557.00	$ 3,384.00	$ 3,282.48	$ 3,184.01	$ 3,088.49	$ 2,995.83	$ 2,905.96
Mortgage banking	$ 6,096.00	$ 4,350.00	$ 3,017.00	$ 2,564.45	$ 2,179.78	$ 1,852.82	$ 1,574.89	$ 1,338.66
Insurance	$ 1,268.00	$ 1,049.00	$ 429.00	$ 343.20	$ 274.56	$ 219.65	$ 175.72	$ 140.57
Net gains (losses) from trading activities	$ 834.00	$ 542.00	$ 602.00	$ 650.16	$ 702.17	$ 758.35	$ 819.01	$ 884.54
Net gains on debt securities	$ 942.00	$ 479.00	$ 108.00	$ 135.00	$ 168.75	$ 210.94	$ 263.67	$ 329.59
Net gains from equity securities	$ 879.00	$ 1,779.00	$ 1,515.00	$ 1,666.50	$ 1,833.15	$ 2,016.47	$ 2,218.11	$ 2,439.92
Lease income	$ 1,927.00	$ 1,907.00	$ 1,753.00	$ 1,665.35	$ 1,582.08	$ 1,502.98	$ 1,427.83	$ 1,356.44
Other	$ 1,289.00	$ 1,603.00	$ 2,473.00	$ 2,782.13	$ 3,129.89	$ 3,521.13	$ 3,961.27	$ 4,456.43
Total noninterest income	$40,513.00	$38,832.00	$36,413.00	$36,409.04	$36,572.37	$36,897.42	$37,382.03	$ 38,027.30
Noninterest expense								
Salaries	$16,552.00	$17,363.00	$17,834.00	$18,369.02	$18,920.09	$19,487.69	$20,072.32	$ 20,674.49
Commission and incentive compensation	$10,247.00	$10,442.00	$10,264.00	$10,366.64	$10,470.31	$10,575.01	$10,680.76	$ 10,787.57
Employee benefits	$ 5,094.00	$ 5,566.00	$ 4,926.00	$ 5,073.78	$ 5,225.99	$ 5,382.77	$ 5,544.26	$ 5,710.58
Equipment	$ 2,154.00	$ 2,237.00	$ 2,444.00	$ 2,517.32	$ 2,592.84	$ 2,670.62	$ 2,750.74	$ 2,833.27
Net occupancy	$ 2,855.00	$ 2,849.00	$ 2,888.00	$ 2,916.88	$ 2,946.05	$ 2,975.51	$ 3,005.26	$ 3,035.32
Core deposit and other intangibles	$ 1,192.00	$ 1,152.00	$ 1,058.00	$ 1,005.10	$ 954.85	$ 907.10	$ 861.75	$ 818.66
FDIC and other deposit assessments	$ 1,168.00	$ 1,287.00	$ 1,110.00	$ 1,076.70	$ 1,044.40	$ 1,013.07	$ 982.68	$ 953.19
Other	$13,115.00	$17,588.00	$15,602.00	$16,070.06	$16,552.16	$17,048.73	$17,560.19	$ 18,086.99
Total noninterest expense	$52,377.00	$58,484.00	$56,126.00	$57,395.50	$58,706.68	$60,060.51	$61,457.96	$ 62,900.08
Income before income tax expense	$32,120.00	$27,377.00	$28,538.00	$30,164.96	$32,035.08	$34,137.10	$36,461.01	$ 38,997.45
Income tax expense (benefit)	$10,075.00	$ 4,917.00	$ 5,662.00	$ 5,972.66	$ 6,342.95	$ 6,759.15	$ 7,219.28	$ 7,721.49
Net income before noncontrolling interests	$22,045.00	$22,460.00	$22,876.00	$24,192.30	$25,692.14	$27,377.96	$29,241.73	$ 31,275.95
Less: Net income from noncontrolling interests	$ 107.00	$ 277.00	$ 483.00	$ 507.15	$ 532.51	$ 559.13	$ 587.09	$ 616.44
Wells Fargo net income	$21,938.00	$22,183.00	$22,393.00	$23,685.15	$25,159.63	$26,818.82	$28,654.64	$ 30,659.51
Less: Preferred stock dividends and other	$ 1,565.00	$ 1,629.00	$ 1,704.00	$ 1,721.04	$ 1,738.25	$ 1,755.63	$ 1,773.19	$ 1,790.92
Wells Fargo net income applicable to common stock	$20,373.00	$20,554.00	$20,689.00	$21,964.11	$23,421.38	$25,063.19	$26,881.45	$ 28,868.59
Per share information								
Earnings per common share	$ 4.03	$ 4.14	$ 4.31	$ 4.84	$ 5.54	$ 6.38	$ 7.36	$ 8.50
Diluted earnings per common share	$ 3.99	$ 4.10	$ 4.28	$ 4.80	$ 5.50	$ 6.33	$ 7.30	$ 8.43
Average common shares outstanding	5026	4913	4666	4542	4224	3928	3653	3398
Diluted average common shares outstanding	5078	4963	4701	4577	4257	3959	3682	3424

(in millions, except per share amounts)	2016	2017	2018	2019E	2020E	2021E	2022E	2023E	NPV of Cash Flow	$ 123,910
									NPV of Terminal Value	$ 160,741
Total Revenue	$84,497	$85,861	$84,664	$87,560	$90,742	$94,198	$97,919	$101,898	Projected Equity Value	$ 284,651
Growth	4.59%	1.61%	-1.39%	3.42%	3.63%	3.81%	3.95%	4.06%		
									Current Price	$ 48.31
Operating Income	$32,120	$27,377	$28,538	$30,165	$32,035	$34,137	$36,461	$ 38,997	Implied equity value/share	$ 62.67
Operating Margin	38.01%	31.89%	33.71%	34.45%	35.30%	36.24%	37.24%	38.27%	Free Cash Flow Yield	29.73%
Interest Income	$43,984	$47,029	$48,251	$51,151	$54,169	$57,300	$60,537	$ 63,870	Current P/E	11.74
Interest % of Sales	52.05%	54.77%	56.99%	58.42%	59.70%	60.83%	61.82%	62.68%	*Projected P/E*	9.83
Taxes	$10,075	$ 4,917	$ 5,662	$ 5,973	$ 6,343	$ 6,759	$ 7,219	$ 7,721	Shares Outstanding	4,541,951,820
Tax Rate	31.50%	18.10%	20.86%	19.81%	19.81%	19.81%	19.81%	19.81%		
									Debt	$ 9,627
Net Income	$20,373	$20,554	$20,689	$21,964	$23,421	$25,063	$26,881	$ 28,869	Cash	$ 678
Growth	-4.18%	0.89%	0.66%	6.16%	6.63%	7.01%	7.25%	7.39%	Cash/share	$ 0.60

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Appendix: Extended Discounted Cash Flow Analysis (Bull Case)

	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Interest income	$53,663.00	$58,909.00	$64,647.00	$69,670.07	$75,083.44	$80,917.42	$87,204.70	$ 93,980.51
Interest expense	$ 5,909.00	$ 9,352.00	$14,652.00	$16,446.87	$18,461.61	$20,723.16	$23,261.75	$ 26,111.31
Net interest income	$47,754.00	$49,557.00	$49,995.00	$53,223.20	$56,621.82	$60,194.26	$63,942.96	$ 67,869.20
Provision for credit losses	$ 3,770.00	$ 2,528.00	$ 1,744.00	$ 1,996.88	$ 2,286.43	$ 2,617.96	$ 2,997.56	$ 3,432.21
Net interest income after provision for credit losses	$43,984.00	$47,029.00	$48,251.00	$51,226.32	$54,335.40	$57,576.30	$60,945.39	$ 64,436.99
Noninterest income								
Service charges on deposit accounts	$ 5,372.00	$ 5,111.00	$ 4,716.00	$ 4,881.06	$ 5,051.90	$ 5,228.71	$ 5,411.72	$ 5,601.13
Trust and investment fees	$14,243.00	$14,495.00	$14,509.00	$14,813.69	$15,124.78	$15,442.40	$15,766.69	$ 16,097.79
Card fees	$ 3,936.00	$ 3,960.00	$ 3,907.00	$ 3,965.61	$ 4,025.09	$ 4,085.47	$ 4,146.75	$ 4,208.95
Other fees	$ 3,727.00	$ 3,557.00	$ 3,384.00	$ 3,299.40	$ 3,216.92	$ 3,136.49	$ 3,058.08	$ 2,981.63
Mortgage banking	$ 6,096.00	$ 4,350.00	$ 3,017.00	$ 2,579.54	$ 2,205.50	$ 1,885.70	$ 1,612.28	$ 1,378.50
Insurance	$ 1,268.00	$ 1,049.00	$ 429.00	$ 345.35	$ 278.00	$ 223.79	$ 180.15	$ 145.02
Net gains (losses) from trading activities	$ 834.00	$ 542.00	$ 602.00	$ 659.19	$ 721.81	$ 790.39	$ 865.47	$ 947.69
Net gains on debt securities	$ 942.00	$ 479.00	$ 108.00	$ 135.54	$ 170.10	$ 213.48	$ 267.92	$ 336.23
Net gains from equity securities	$ 879.00	$ 1,779.00	$ 1,515.00	$ 1,689.23	$ 1,883.49	$ 2,100.09	$ 2,341.60	$ 2,610.88
Lease income	$ 1,927.00	$ 1,907.00	$ 1,753.00	$ 1,691.65	$ 1,632.44	$ 1,575.30	$ 1,520.17	$ 1,466.96
Other	$ 1,289.00	$ 1,603.00	$ 2,473.00	$ 2,782.13	$ 3,129.89	$ 3,521.13	$ 3,961.27	$ 4,456.43
Total noninterest income	$40,513.00	$38,832.00	$36,413.00	$36,842.36	$37,439.91	$38,202.94	$39,132.08	$ 40,231.21
Noninterest expense								
Salaries	$16,552.00	$17,363.00	$17,834.00	$18,351.19	$18,883.37	$19,430.99	$19,994.49	$ 20,574.33
Commission and incentive compensation	$10,247.00	$10,442.00	$10,264.00	$10,340.98	$10,418.54	$10,496.68	$10,575.40	$ 10,654.72
Employee benefits	$ 5,094.00	$ 5,566.00	$ 4,926.00	$ 5,061.47	$ 5,200.66	$ 5,343.67	$ 5,490.62	$ 5,641.62
Equipment	$ 2,154.00	$ 2,237.00	$ 2,444.00	$ 2,511.21	$ 2,580.27	$ 2,651.23	$ 2,724.13	$ 2,799.05
Net occupancy	$ 2,855.00	$ 2,849.00	$ 2,888.00	$ 2,909.66	$ 2,931.48	$ 2,953.47	$ 2,975.62	$ 2,997.94
Core deposit and other intangibles	$ 1,192.00	$ 1,152.00	$ 1,058.00	$ 1,007.75	$ 959.88	$ 914.28	$ 870.85	$ 829.49
FDIC and other deposit assessments	$ 1,168.00	$ 1,287.00	$ 1,110.00	$ 1,079.48	$ 1,049.79	$ 1,020.92	$ 992.84	$ 965.54
Other	$13,115.00	$17,588.00	$15,602.00	$16,054.46	$16,520.04	$16,999.12	$17,492.09	$ 17,999.36
Total noninterest expense	$52,377.00	$58,484.00	$56,126.00	$57,316.18	$58,544.02	$59,810.35	$61,116.06	$ 62,462.04
Income before income tax expense	$32,120.00	$27,377.00	$28,538.00	$30,752.50	$33,231.29	$35,968.89	$38,961.42	$ 42,206.16
Income tax expense (benefit)	$10,075.00	$ 4,917.00	$ 5,662.00	$ 6,089.00	$ 6,579.80	$ 7,121.84	$ 7,714.36	$ 8,356.82
Net income before noncontrolling interests	$22,045.00	$22,460.00	$22,876.00	$24,663.51	$26,651.50	$28,847.05	$31,247.06	$ 33,849.34
Less: Net income from noncontrolling interests	$ 107.00	$ 277.00	$ 483.00	$ 504.74	$ 527.45	$ 551.18	$ 575.99	$ 601.91
Wells Fargo net income	$21,938.00	$22,183.00	$22,393.00	$24,158.77	$26,124.05	$28,295.87	$30,671.07	$ 33,247.43
Less: Preferred stock dividends and other	$ 1,565.00	$ 1,629.00	$ 1,704.00	$ 1,716.78	$ 1,729.66	$ 1,742.63	$ 1,755.70	$ 1,768.87
Wells Fargo net income applicable to common stock	$20,373.00	$20,554.00	$20,689.00	$22,441.99	$24,394.39	$26,553.24	$28,915.37	$ 31,478.56
Per share information								
Earnings per common share	$ 4.03	$ 4.14	$ 4.31	$ 4.94	$ 5.78	$ 6.76	$ 7.91	$ 9.26
Diluted earnings per common share	$ 3.99	$ 4.10	$ 4.28	$ 4.90	$ 5.73	$ 6.71	$ 7.85	$ 9.19
Average common shares outstanding	5026	4913	4666	4542	4224	3928	3653	3398
Diluted average common shares outstanding	5078	4963	4701	4577	4257	3959	3682	3424

(in millions, except per share amounts)	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Total Revenue	$84,497	$85,861	$84,664	$88,069	$91,775	$95,779	$100,077	$104,668
Growth	4.59%	1.61%	-1.39%	4.02%	4.21%	4.36%	4.49%	4.59%
Operating Income	$32,120	$27,377	$28,538	$30,753	$33,231	$35,969	$ 38,961	$ 42,206
Operating Margin	38.01%	31.89%	33.71%	34.92%	36.21%	37.55%	38.93%	40.32%
Interest Income	$43,984	$47,029	$48,251	$51,226	$54,335	$57,576	$ 60,945	$ 64,437
Interest % of Sales	52.05%	54.77%	56.99%	58.17%	59.20%	60.11%	60.90%	61.56%
Taxes	$10,075	$ 4,917	$ 5,662	$ 6,089	$ 6,580	$ 7,122	$ 7,714	$ 8,357
Tax Rate	31.50%	18.10%	20.86%	19.81%	19.81%	19.81%	19.81%	19.81%
Net Income	$20,373	$20,554	$20,689	$22,442	$24,394	$26,553	$ 28,915	$ 31,479
Growth	-4.18%	0.89%	0.66%	8.47%	8.70%	8.85%	8.90%	8.86%

NPV of Cash Flow	$ 131,445
NPV of Terminal Value	$ 175,273
Projected Equity Value	$ 306,718
Current Price	$ 48.31
Implied equity value/share	$ 67.53
Free Cash Flow Yield	39.78%
Current P/E	11.74
Projected P/E	9.83
Shares Outstanding	4,541,951,820
Debt	$ 9,627
Cash	$ 678
Cash/share	$ 0.60

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Appendix: Extended Discounted Cash Flow Analysis (Bear Case)

	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Interest income	$53,663.00	$58,909.00	$64,647.00	$69,605.42	$74,944.16	$80,692.38	$86,881.48	$93,545.29
Interest expense	$5,909.00	$9,352.00	$14,652.00	$16,520.13	$18,626.45	$21,001.32	$23,678.99	$26,698.06
Net interest income	$47,754.00	$49,557.00	$49,995.00	$53,085.29	$56,317.71	$59,691.06	$63,202.50	$66,847.24
Provision for credit losses	$3,770.00	$2,528.00	$1,744.00	$2,014.32	$2,326.54	$2,687.15	$3,103.66	$3,584.73
Net interest income after provision for credit losses	$43,984.00	$47,029.00	$48,251.00	$51,070.97	$53,991.17	$57,003.91	$60,098.83	$63,262.51
Noninterest income								
Service charges on deposit accounts	$5,372.00	$5,111.00	$4,716.00	$4,480.20	$4,256.19	$4,043.38	$3,841.21	$3,649.15
Trust and investment fees	$14,243.00	$14,495.00	$14,509.00	$14,726.64	$14,947.53	$15,171.75	$15,399.32	$15,630.31
Card fees	$3,936.00	$3,960.00	$3,907.00	$3,965.61	$4,025.09	$4,085.47	$4,146.75	$4,208.95
Other fees	$3,727.00	$3,557.00	$3,384.00	$3,265.56	$3,151.27	$3,040.97	$2,934.54	$2,831.83
Mortgage banking	$6,096.00	$4,350.00	$3,017.00	$2,413.60	$1,930.88	$1,544.70	$1,235.76	$988.61
Insurance	$1,268.00	$1,049.00	$429.00	$321.75	$241.31	$180.98	$135.74	$101.80
Net gains (losses) from trading activities	$834.00	$542.00	$602.00	$638.12	$676.41	$716.99	$760.01	$805.61
Net gains on debt securities	$942.00	$479.00	$108.00	$129.60	$155.52	$186.62	$223.95	$268.74
Net gains from equity securities	$879.00	$1,779.00	$1,515.00	$1,636.20	$1,767.10	$1,908.46	$2,061.14	$2,226.03
Lease income	$1,927.00	$1,907.00	$1,753.00	$1,630.29	$1,516.17	$1,410.04	$1,311.34	$1,219.54
Other	$1,289.00	$1,603.00	$2,473.00	$2,782.13	$3,129.89	$3,521.13	$3,961.27	$4,456.43
Total noninterest income	$40,513.00	$38,832.00	$36,413.00	$35,989.69	$35,797.36	$35,810.50	$36,011.02	$36,387.01
Noninterest expense								
Salaries	$16,552.00	$17,363.00	$17,834.00	$18,386.85	$18,956.85	$19,544.51	$20,150.39	$20,775.05
Commission and incentive compensation	$10,247.00	$10,442.00	$10,264.00	$10,376.90	$10,491.05	$10,606.45	$10,723.12	$10,841.08
Employee benefits	$5,094.00	$5,566.00	$4,926.00	$5,078.71	$5,236.15	$5,398.47	$5,565.82	$5,738.36
Equipment	$2,154.00	$2,237.00	$2,444.00	$2,519.76	$2,597.88	$2,678.41	$2,761.44	$2,847.05
Net occupancy	$2,855.00	$2,849.00	$2,888.00	$2,919.77	$2,951.89	$2,984.36	$3,017.18	$3,050.37
Core deposit and other intangibles	$1,192.00	$1,152.00	$1,058.00	$1,006.16	$956.86	$909.97	$865.38	$822.98
FDIC and other deposit assessments	$1,168.00	$1,287.00	$1,110.00	$1,077.81	$1,046.55	$1,016.20	$986.73	$958.12
Other	$13,115.00	$17,588.00	$15,602.00	$16,116.87	$16,648.72	$17,198.13	$17,765.67	$18,351.94
Total noninterest expense	$52,377.00	$58,484.00	$56,126.00	$57,482.83	$58,885.94	$60,336.50	$61,835.74	$63,384.94
Income before income tax expense	$32,120.00	$27,377.00	$28,538.00	$29,577.83	$30,902.59	$32,477.91	$34,274.12	$36,264.57
Income tax expense (benefit)	$10,075.00	$4,917.00	$5,662.00	$5,856.41	$6,118.71	$6,430.63	$6,786.28	$7,180.39
Net income before noncontrolling interests	$22,045.00	$22,460.00	$22,876.00	$23,721.42	$24,783.88	$26,047.28	$27,487.84	$29,084.19
Less: Net income from noncontrolling interests	$107.00	$277.00	$483.00	$511.98	$542.70	$575.26	$609.78	$646.36
Wells Fargo net income	$21,938.00	$22,183.00	$22,393.00	$23,209.44	$24,241.18	$25,472.02	$26,878.07	$28,437.83
Less: Preferred stock dividends and other	$1,565.00	$1,629.00	$1,704.00	$1,738.08	$1,772.84	$1,808.30	$1,844.46	$1,881.35
Wells Fargo net income applicable to common stock	$20,373.00	$20,554.00	$20,689.00	$21,471.36	$22,468.34	$23,663.72	$25,033.60	$26,556.47
Per share information								
Earnings per common share	$4.03	$4.14	$4.31	$4.73	$5.32	$6.02	$6.85	$7.82
Diluted earnings per common share	$3.99	$4.10	$4.28	$4.69	$5.28	$5.98	$6.80	$7.76
Average common shares outstanding	5026	4913	4666	4542	4224	3928	3653	3398
Diluted average common shares outstanding	5078	4963	4701	4577	4257	3959	3682	3424

(in millions, except per share amounts)	2016	2017	2018	2019E	2020E	2021E	2022E	2023E	NPV of Cash Flow	$116,957
									NPV of Terminal Value	$147,867
Total Revenue	$84,497	$85,861	$84,664	$87,061	$89,789	$92,814	$96,110	$99,650	Projected Equity Value	$264,823
Growth	4.59%	1.61%	-1.39%	2.83%	3.13%	3.37%	3.55%	3.68%		
									Current Price	$48.31
Operating Income	$32,120	$27,377	$28,538	$29,578	$30,903	$32,478	$34,274	$36,265	Implied equity value/share	$58.31
Operating Margin	38.01%	31.89%	33.71%	33.97%	34.42%	34.99%	35.66%	36.39%	Free Cash Flow Yield	20.69%
Interest Income	$43,984	$47,029	$48,251	$51,071	$53,991	$57,004	$60,099	$63,263	Current P/E	11.74
Interest % of Sales	52.05%	54.77%	56.99%	58.66%	60.13%	61.42%	62.53%	63.49%	*Projected P/E*	9.83
Taxes	$10,075	$4,917	$5,662	$5,856	$6,119	$6,431	$6,786	$7,180	Shares Outstanding	4,541,951,820
Tax Rate	31.50%	18.10%	20.86%	19.81%	19.81%	19.81%	19.81%	19.81%		
									Debt	$9,627
Net Income	$20,373	$20,554	$20,689	$21,471	$22,468	$23,664	$25,034	$26,556	Cash	$678
Growth	-4.18%	0.89%	0.66%	3.78%	4.64%	5.32%	5.79%	6.08%	Cash/share	$0.60

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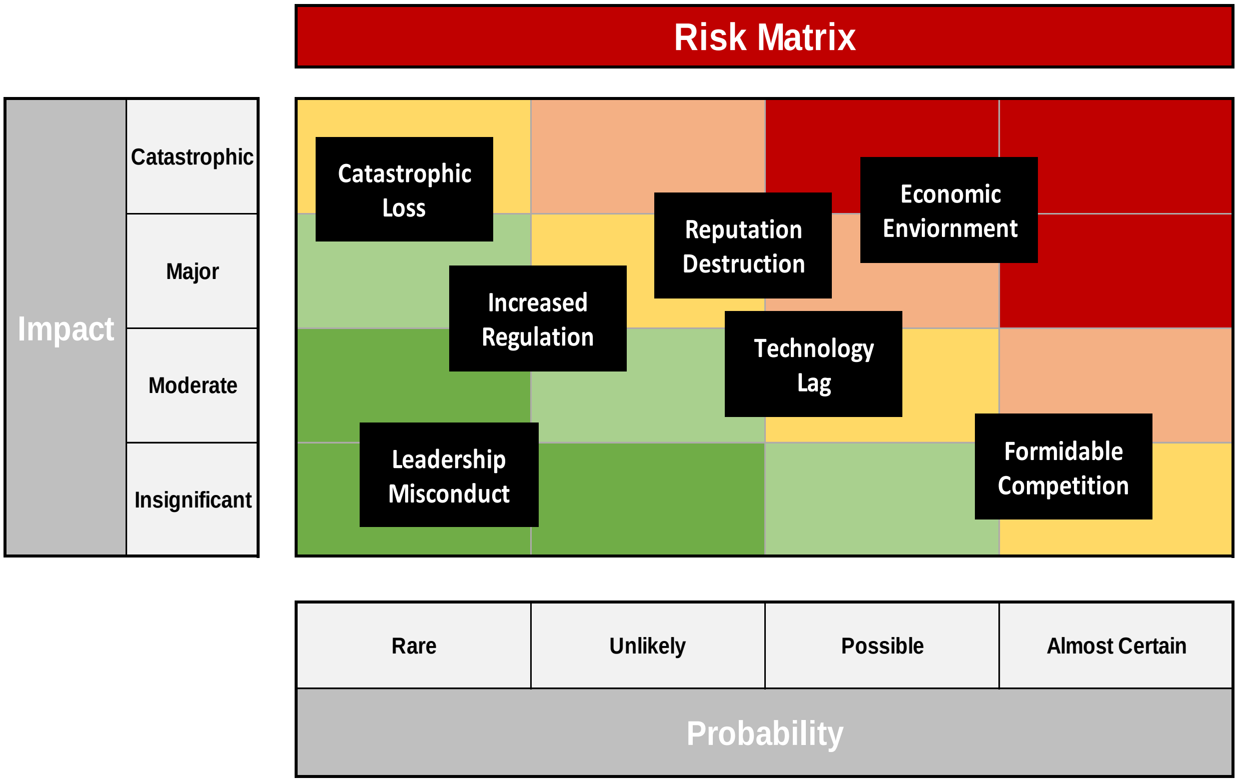
Appendix: Risk Matrix



Appendix: Select Executive Compensation

Executive Compensation for 2018				
Name	Salary Paid	Stock Awards	All Other Compensation	Total
Timothy J. Sloan- CEO	$ 2,400,000	$14,000,056	$2,026,678	$18,426,734
John Shrewsberry- CFO	$2,000,000	$9,250,013	$1,278,845	$12,528,858
Avid Modjtabai- VP Innovation	$1,750,000	$7,250,013	$1,387,233	$10,387,246
Petros G Pelos- VP Wholesale	$1,456,896	$6,500,028	$1,029,784	$8,986,708
Mary Tabb Mack- VP Consumer	$1,413,793	$5,500,029	$1,686,671	$8,600,493

Source: Bloomberg

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Appendix: Beneish M-Score

Parameters		
Year	2017	2018
Net Sales	88389	86408
Cost of Goods	56210	57831
Net Receivables	976948	970277
Current Assets	23367	2551
Property, Plant and Equipment	8847	8920
Depreciation	5406	5593
Total Assets	1951757	1895883
SGA Expense	33371	33024
Net Income	20554	20689
Cash Flow from Operations	18619	36073
Current Liabilities	103256	105787
Long-term Debt	225020	229044

Glossary	
SGA	Selling, General and Administrative Expenses
CA	Current Assets
DSRI	Days Sales in Receivables Index
GMI	Gross Margin Index
AQI	Asset Quality Index
SGI	Sales Growth Index
DEPI	Depreciation Index
SGAI	SG&A Expenses Index
LVGI	Leverage Index
TATA	Total Accruals to Total Assets

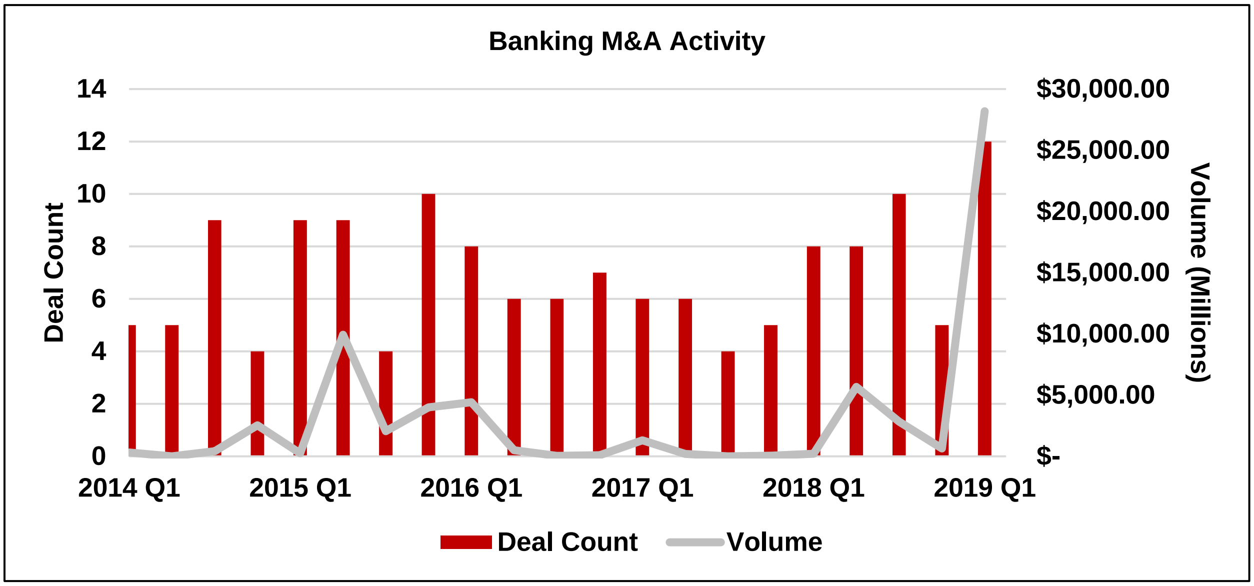
Derived Variables		
Other L/T Assets [TA-(CA+PPE)]	1919543	1884412
DSRI	1.016	
GMI	0.908	
AQI	1.011	
SGI	0.978	
DEPI	1.016	
SGAI	1.012	
TATA	0.001	
LVGI	1.050	

M-score	
5 variable model	-3.00
8 variable model	-2.54
Note: If M > -2.22, firm may manipulate accounting	

Appendix: Select Merger and Acquisition Transactions & Premiums

Date	Target Name	Acquirer Name	Value (Millions)	Payment Type	Deal Status	Premium
2/7/2019	SunTrust Banks Inc	BB&T Corp	$ 27,894.88	Stock	Pending	6.99%
9/13/2015	Solera Holdings Inc	Koch Industries, Goldman Sachs Group	$ 5,767.94	Cash	Completed	12.94%
1/22/2015	City National Corp/CA	Royal Bank of Canada	$ 5,608.68	Cash or Stock	Completed	25.20%
8/27/2012	Hudson City Bancorp	M&T Bank Corp	$ 5,314.17	Cash or Stock	Completed	31.37%
6/29/2016	PrivateBancorp Inc	Canadian Imperial Bank of Commerce	$ 4,970.38	Cash & Stock	Completed	62.12%
5/21/2018	MB Financial Inc	Fifth Third Bancorp	$ 4,570.46	Cash & Stock	Pending	24.17%
1/28/2019	TCF Financial Corp	Chemical Financial Corp	$ 4,270.19	Stock	Pending	0.00%
12/17/2010	Marshall & Ilsley Corp	Bank of Montreal	$ 4,020.85	Stock	Completed	20.79%
10/30/2015	First Niagara Financial	KeyCorp	$ 3,992.36	Cash & Stock	Completed	9.81%
1/25/2016	FirstMerit Corp	Huntington Bancshares Inc/OH	$ 3,760.32	Cash & Stock	Completed	31.01%

Appendix: Merger and Acquisition Activity



Appendix: DuPont Analysis

	2014	2015	2016	2017	2018	2019E	2020E	2021E
Tax Burden	64.34%	63.82%	63.43%	75.08%	72.50%	80.20%	80.20%	80.20%
Operating Margin	40.21%	39.09%	36.39%	30.97%	33.03%	34.45%	35.30%	36.42%
Asset Turnover	5.50%	5.18%	5.07%	5.04%	5.25%	5.31%	5.49%	5.63%
Leverage Ratio	10.06%	10.34%	10.75%	10.89%	10.85%	10.81%	10.77%	10.73%
Return on Equity	13.67%	12.75%	11.77%	10.48%	11.09%	12.85%	13.56%	14.29%
Sustainable Growth Rate	9.25%	8.27%	7.35%	7.23%	7.22%	7.95%	8.39%	8.87%

References

A: Bloomberg

B: Bloomberg Intelligence Industry Primer

C: WFC 2018 10-K Report

D: WFC 2017 10-K Report

E: WFC 2016 10-K Report

F: WFC 2018 3Q 10-Q Report

G: WFC 2018 2Q 10-Q Report

H: WFC 2018 1Q 10-Q Report

I: WFC Company Website

J: CNBC, "*Warren Buffet: Wells Fargo…*"

K: Y Charts

L: The Wall Street Journal

M: Morningstar

N: "Wells Fargo Today" Factsheet