Global Equity Research
Company Note
Company Update

FINANCIALS RESEARCH

November 19, 2017

Wells Fargo

The Buffalo News Effect

KEY TAKEAWAYS

With characteristic quotability, Warren Buffett commented in 2010 that "if you own the only newspaper in town, up until the last five years or so, you have pricing power and you didn't have to go to the office". Unfortunately for WFC, the same is true also of bank branches.

The defining feature of WFC's branch network is its breadth: 40% of branches are outside major metropolitan markets (with population >1mm) versus 20-25% at JPM and BAC; and, within the major markets, WFC disproportionately has top-3 market share. In both cases, the result is pricing power through local oligopoly if not monopoly.

However, as digital drains branch traffic, this advantaged network becomes less valuable. Given that its research, customer, and information scale will support best-in-class app design and deployment, WFC will be a leader in mobile banking; but its legacy branch-advantage, and associated premium return, over BAC and JPM is diminishing.

Of course, there will be cyclical return-variation between the three banks because of business mix, and particularly the fortunes of the wholesale businesses to which WFC is relatively under-exposed. But customer migration to digital, along with a post-crisis regulatory framework which has driven convergence of SIFI-bank balance sheets including large liquidity positions (to meet LCR and resolution requirements) and a move away from non-prime credit books (to manage stress-capital under CCAR), is eroding WFC's traditional return premium.

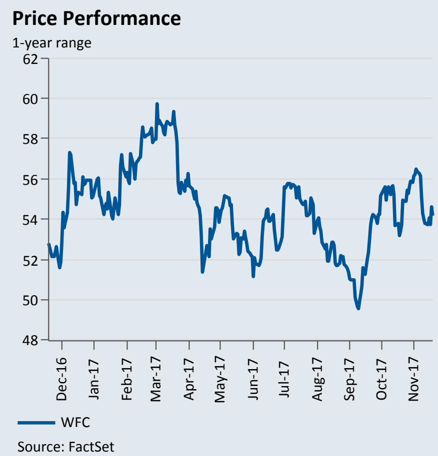
Ratings

Stock Rating:	Equalweight
Industry View:	Neutral
Target Price:	$60.00

Financial Data

Symbol:	WFC (NYSE)
Rating/Target Price:	EW / $60.00
Price (11/17/2017):	$54.15
52-Week Price Range:	$49.27 - $59.99
Diluted Shares Outstanding (mm):	4,997
Market Cap (mm):	$266,649
Average Daily Vol (mm):	17.6
Book Value/Share:	$36.60
Dividend/Yield:	2.9%
Net Debt (mm):	$313,498

Price Performance



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WFC: The Buffalo News Effect

The fiscal orderliness of WFC's retail transformation is remarkable even if 2018 estimates have come in by about 25c to $4.30. Yes, the firm-wide efficiency ratio has poked through the upper-end of long-run guidance of 55-59% (to 61% +/- for FY2017), but will likely return to a 59-handle by 18H2. Yes, revenue is falling a bit short with the run-off of the legacy home-equity book and lower-quality auto-book, and as the reputational hit from questionable sales practices has slowed referrals from branches to the card- and home-lending businesses, but this has not translated to misses on adjusted EPS. And, yes, primary checking accounts are flat, versus previous mid- to high-single digit growth, but deposit growth remains strong as deposits-per-account are up ~10% y/y.

Given the scale of the transformation, other companies would have lowered expectations on a strategic need for "investment spending" if not taken a reset year and restructuring charges: WFC is centralizing control functions including HR, finance, compliance, and risk; reorganizing its auto business around 3 regional centers versus a more distributed origination and collections network; migrating its data architecture from distributed servers to a private cloud; and, through a newly-created enterprise group, with a cumbersome name abbreviating to PVSI, shifted the focus of customer service and acquisition from branch to digital channels.

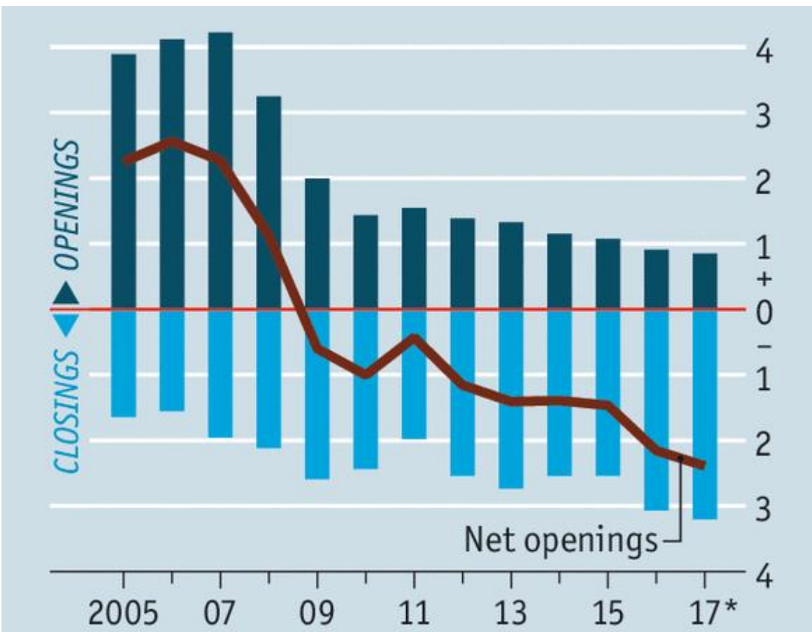
However, we believe there are important structural challenges to the business and WFC's returns are likely to lag, rather than lead as they have historically done, those of BAC and JPM.

Branch Network Optimization

Regulation of overdraft fees and debit interchange (which, in 2013, together accounted for over one-third of checking account revenue) has degraded the economics of low-balance accounts so that banks have increasingly oriented their retail franchises to higher-balance accounts of mass-affluent, typically urban, customers and re-imagined branches as marketing centers and consultations spaces for value-added services, such as mortgages and asset-management, rather than teller-based transactional processing which is migrating to digital and self-service (e.g. ATM and "automated" or "virtual" branches) channels.

Along with digital service channels, which have drained traffic from branch systems so that one quarter of US branches are estimated unprofitable, the result has been branch-closings that have fallen disproportionately outside major metropolitan markets. In other words, not only is branch-count, currently around 80,000, declining (Exhibit 1) but also there is a shift in geographic mix. The FDIC reports that the top quintile of zip codes by household income lost ~3% of branches between 2009 and 2016, while the bottom quintile lost 10%.

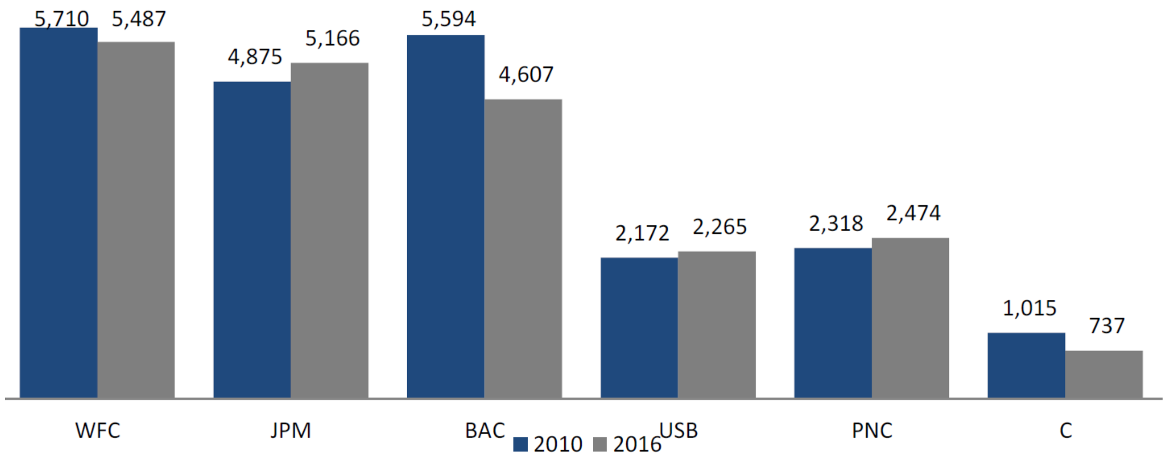
Exhibit 1: US Bank Branches in 000's



*Source: Economist.com, S&P Global Market Intelligence, *Jan-Jun annualized*

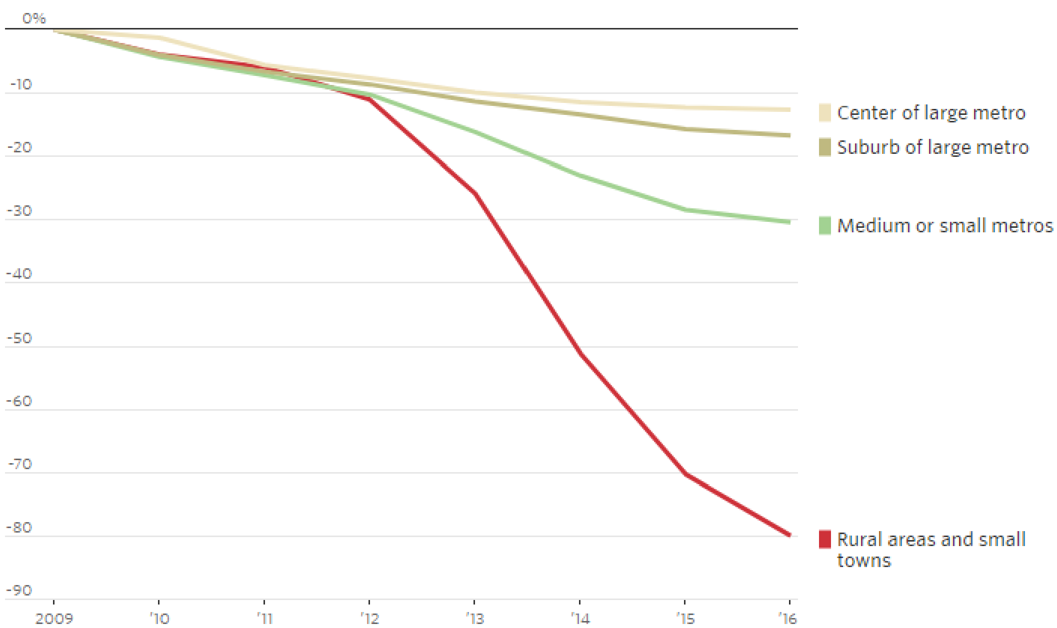
At BAC, which has been one of the most aggressive in network optimization reducing the aggregate branch-count by ~20% since the financial crisis (Exhibit 2), the count in large metropolitan markets (with population of >1mm) has fallen by ~10% with an equivalent figure for small and medium markets of 30% (Exhibit 3). In contrast, WFC has not meaningfully restructured its network, so that the branch count is down <5% since the financial crisis, and has left largely intact its presence in small and medium metropolitan markets.

Exhibit 2: Branch Count for Large US Banks 2010-2016



Source: FDIC, RenMac Analysis

Exhibit 3: Change in BAC Branches by County Type

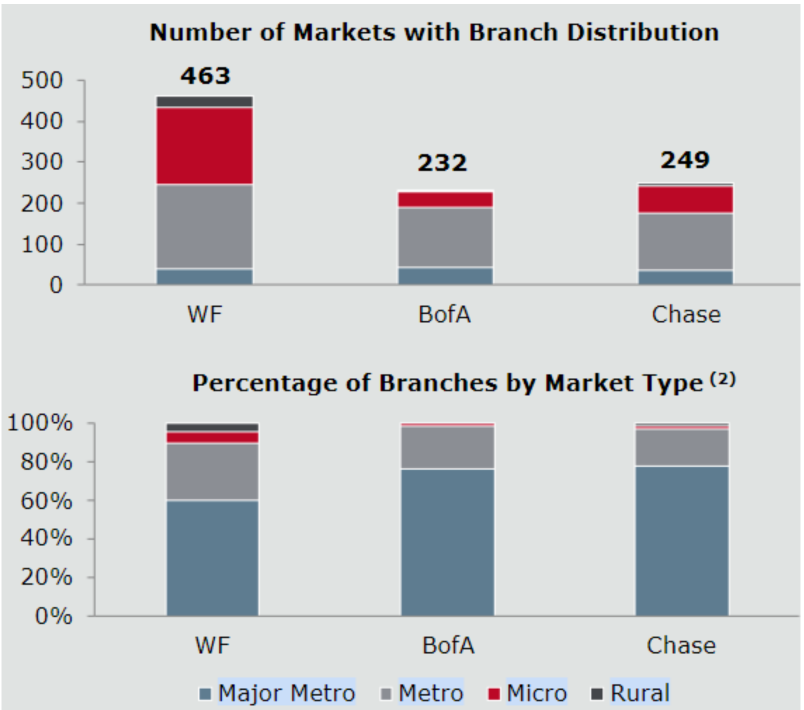


Source: Wall Street Journal

The result is that WFC's branch network is not only larger than that of BAC (with a count of nearer 6,000 than 4,500) but broader in geographic reach: 40% of WFC branches are outside major metropolitan markets versus 20-25% at BAC and JPM (Exhibit 4). The firm claims "our return-on-deposit and efficiency ratios are as good in these branches as they are in our major metro markets" but, even if true today, this is unlikely to prove sustainable.

Unfortunately, Warren Buffett's prognosis for the impact of the internet on local newspapers applies equally to local bank branches: "newspapers are going to go downhill … even with the economy improving circulation goes down".

Exhibit 4: WFC Branches are Disproportionately outside Major Metro Markets

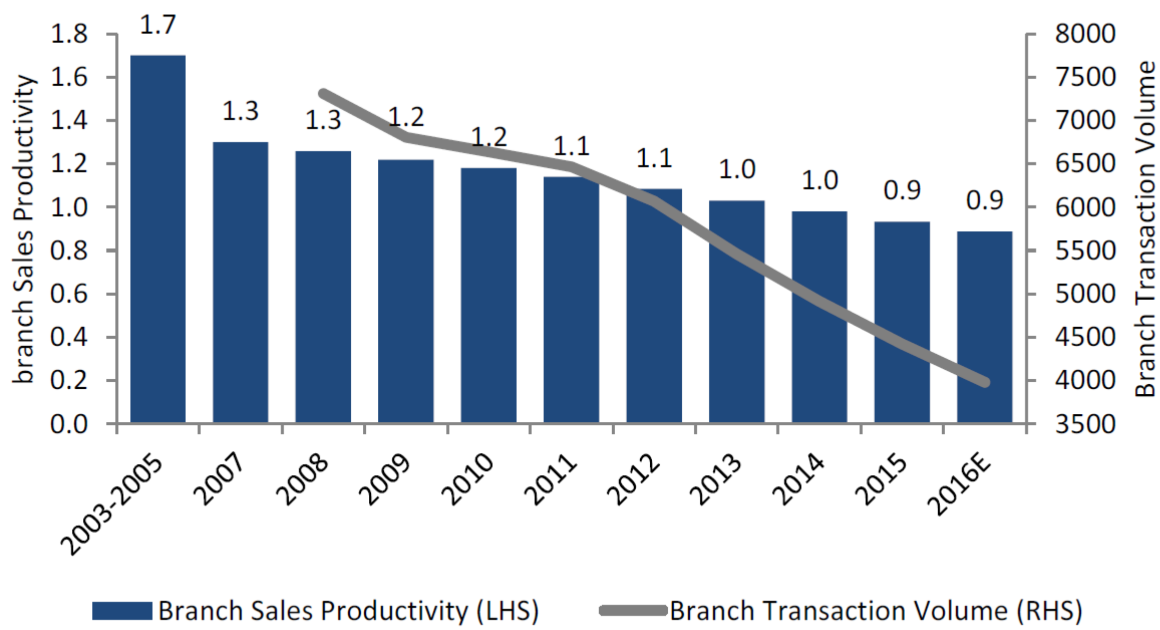


Source: WFC Investor Presentation, May 2017

Branch Traffic and Economics

The governing fact for the unit economics of a bank branch, as for a retail store, is that traffic drives profitability. The average monthly transaction volume for a US bank branch is below the 5,000 break-even level estimated by Bain Consulting and continues to fall (Exhibit 5). Furthermore, there is almost certainly meaningful skew with branches in major metropolitan markets likely many multiples of the national average, and those in smaller markets likely small fractions. These data support the explanation of ING for lower branch density in the Netherlands compared to the US (15 branches per 100,000 adults versus 33) that "branch networks add a cost that can only be justified by cross-selling … but we have chosen another distribution strategy [i.e. internet banking] which is much more cost-efficient but also requires that we focus".

Exhibit 5: Branch Sales Productivity and Transactions/Month

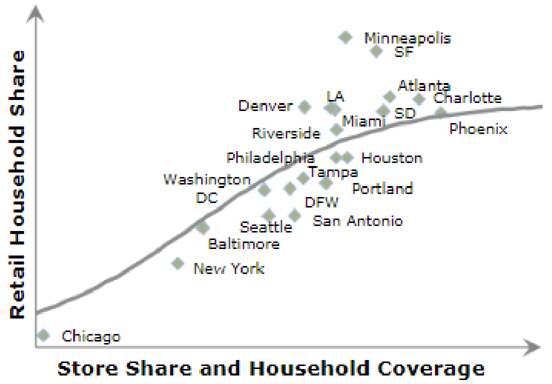


Source: Novantas

In this light, WFC's intense focus on cross-sell, the characterization of branches as "stores", and the "GR8" cheer for eight products per customer, was to support not only tactically-advantaged revenue but also strategically-advantaged branch acquisition. The firm could be confident in out-bidding competitors for prime locations in major metropolitan markets, and establishing and preserving local monopolies in small and medium markets, because it had a stronger revenue engine. And these privileged locations generated pricing power and more deposits-per-branch leading to durable economic advantage based on physical plant (Exhibit 6) as well as cross-sell execution.

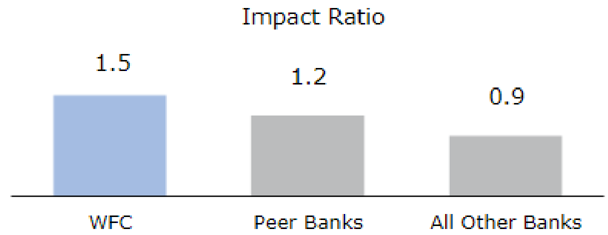
Exhibit 6: The Advantaged Branch Network of WFC

Household share is strong (S-curve)
Most major markets within the "sweet spot" where optimal household and deposit lift occurs



Number of major metro markets with retail household share: (1)	
Above 30 percent	10 of 21
Above 20 percent	16 of 21
Above 10 percent	20 of 21

Our stores generate more deposits than competitors (2)



Higher Impact Ratio means more deposits per store leveraging fixed store costs

$$\text{Impact Ratio}^{(3)} = \frac{\text{Deposit Share}}{\text{Store Share}}$$

(1) Major metro markets defined as largest 25 Core Based Statistical Areas (CBSAs) by population; note that in top 25 CBSAs, Wells Fargo has presence in 21 of the top 25 CBSAs (4 out of footprint metro markets = Boston, Detroit, St. Louis, Pittsburgh). (2) Peer Banks includes BAC, C, JPM, PNC, USB; All Other Banks excludes WFC and five Peer Banks. (3) Source: SNL Financial. Deposit and branch data as of 6/30/13. Pro forma for acquisitions. Caps deposits at $500 million in a single banking store and excludes credit union deposits. Continental U.S. Non-retail deposits excluded. Store share is percent of U.S. total branches.

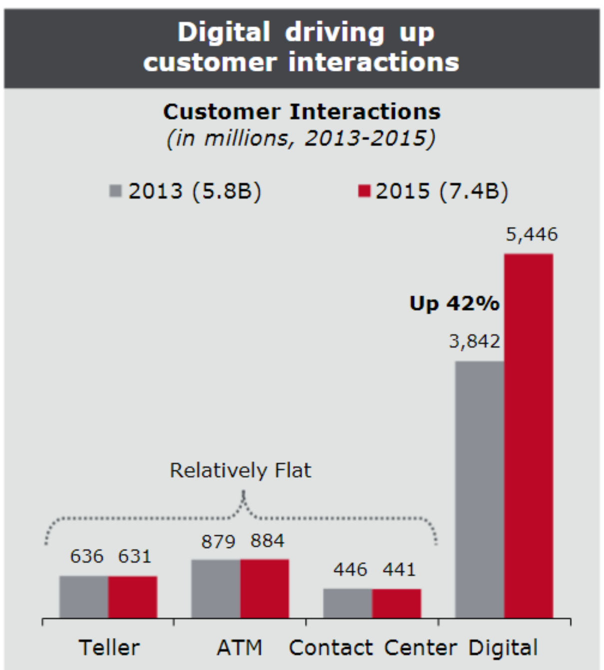
Source: WFC Investor Day 2014

The Interlocking Sales Culture and Branch Network at WFC

In short, the sales culture and moated network were mutually reinforcing in generating premium returns at WFC. Management was, of course, aware of the possibility that the incentives backing its sales culture could be gamed setting out in its 2007 Sales Quality Manual, for example, that splitting a customer deposit and opening multiple accounts was a violation of sales integrity; and, by 2013 had recognized the potential systemic risks to employee morale and, with reporting by the LA Times, reputation. However, there was caution in adapting the interlocking model of sales culture and physical plant with one executive commenting: "we were making changes as quickly as we could, as incrementally as we could, without blowing things up".

Caught between the tension of resolving questionable practices and eroding the edge of a long-standing business model, WFC seems to have been caught in a form of organizational denial. As recently as August 2016, the firm claimed that customers were visiting branches at "pretty consistent rates" contrary to national trends at the time, and not easily reconciled with its report just a year later (so last quarter) that branch and ATM sessions declined 6% y/y. Minimization appears on-going as WFC, in defending relatively modest branch cuts over 450 over the next 3 years, "highlights that customers continue to actively use their accounts … branch and ATM interactions declined 6% from a year ago … the decline was driven in part by customers migrating to our digital channels with digital secure sessions up 6% from a year ago". The flaw in this equation is that digital drives more intense engagement so that no-one, including WFC (Exhibit 7), has previously argued for a 1-to-1 relationship between physical and digital touches.

Exhibit 7: WFC Notes that Digital Drives up Customer Interactions



Source: Investor Presentation, May 2016

The Different Competitive Dynamics for Digital Banking

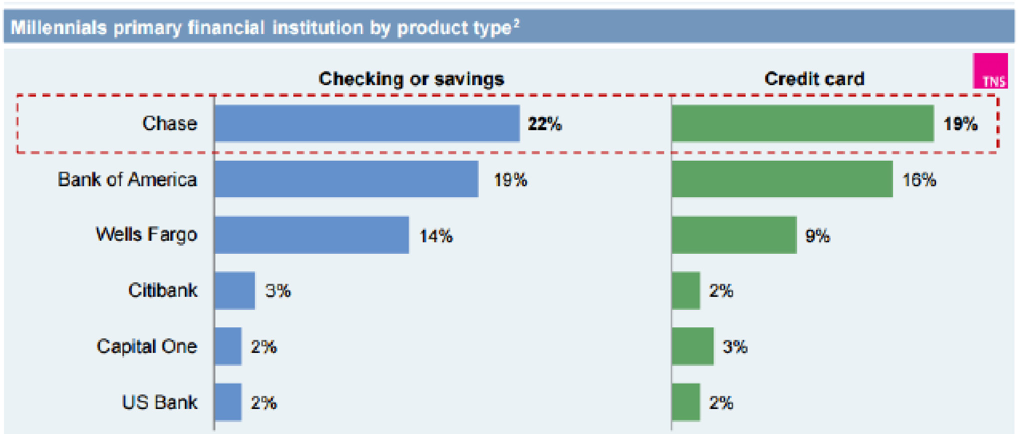
In other words, you need more than a 6% increase in digital sessions to compensate for a 6% decline in foot-traffic given the high intensity (total interactions per month across all channels) of digitally-engaged customers. Our guess is that increased engagement among urban mass-affluent customers, aggregated across both digital and branch channels, is masking meaningful declines in branch traffic, *and account-usage*, outside major metropolitan markets.

Unlike USB, which began evolving its sales model to encourage branch managers more to engage customers and prospects outside the branch as early as 2008, WFC appears to have pursued a more reactive model, serving customers as they appeared in the branch and using that opportunity to cross-sell, until 2013. And, even then, some proactive tactics verged on parody with one former branch staffer commenting that "managers suggested to employees that they hunt for sales prospects at bus stops and retirement homes".

In practice, the mobile channel is advantaged over branches for both service and – given the availability of actionable insights from customer activity along with its real-time and location-aware capabilities – sales as WFC is finally embracing through its Payments and Virtual Solutions and Innovation (PVSI) group and new products, such as its digital mortgage application (that pre-fills with trusted data), up-coming "selfie" identification (using FaceID for authentication), and "predictive banking" (using artificial intelligence to look at cash flow patterns of our customers and give them pointers and insights in the moment).

However, the broader consequence of this industry shift from branch to digital for both service and sales is that the key success factor is less local branch density and location, which has supported premium returns at WFC, and more the design and deployment of mobile app capabilities. As a large bank, with research, customer, and information scale, WFC will be a long-run winner but will not necessarily have an edge over BAC and JPM. Indeed, using share among millennials accounts as a gauge, it lags these two peers (Exhibit 8).

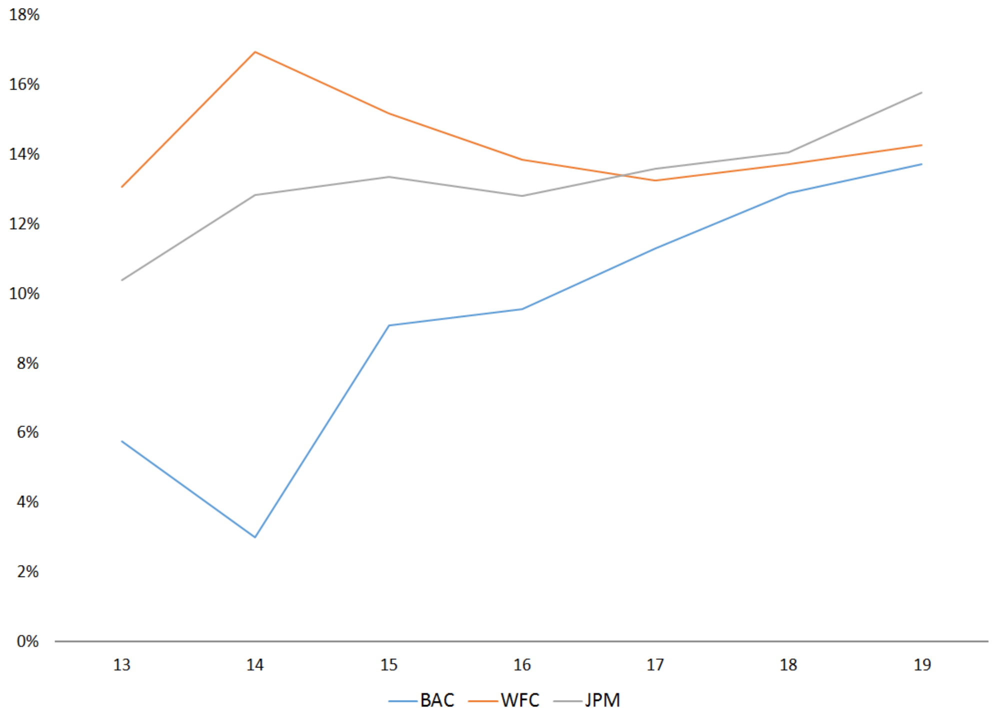
Exhibit 8: JPM and BAC Lead WFC among Millennial Customers



Source: JPM Company Presentation, September 2016

This evolution of the competitive landscape is reflected in financial performance as the premium return of WFC over BAC and JPM has eroded (Exhibit 9). WFC acknowledges this "we have historically provided exceptional returns on an absolute and relative basis … others have caught up, we appreciate that … [but] providing the best long-term returns to our shareholders is one of our goals, and we are going to achieve that goal". In practice, we do not expect WFC to regain its traditional return-premium over its large-bank peers even once the sales-practice issues are long-past.

Exhibit 9: Convergence of Return-on-Tangible Equity at Large Banks



Source: Company Reports, RenMac Estimates

Indeed, given experience curve dynamics in mobile banking, there is a good case that the WFC's late pivot to digital from branch channels means that its returns may lag by 2020 and not recover on a relative basis beyond cyclical variation arising from differences in business mix with WFC tilted less to wholesale banking than JPM and BAC (Exhibit 10) and more, within, consumer tilted more to mortgage. In the shorter term, there is the possibility of relief from cost-outs over and above necessary investment in digital platforms. Management has committed to $4bn over two years with half-realized by end-2018, but re-invested, and the other half by end-2019 and dropped to the bottom-line. But there is some ambiguity over this as indicated by the following (abbreviated) exchange:

CFO: We expect the additional $2bn target in annual expense reductions by the end of '19 to go through to the bottom line.

Analyst: As we think about 19Q4 … [can] we assume a growth rate off that [prior-year base] and then deduct $500mm?

CFO: Nobody knows.

Exhibit 10: WFC is Less Tilted to Wholesale Banking

3Q17 Revenue Mix	JPM	WFC	BAC
Consumer	46%	52%	39%
Wealth Management	12%	30%	21%
Wholesale	41%	18%	40%
Segment Total - $bn	26.0	23.4	22.3

Source: Company Reports, RenMac estimates: JPM's "commercial" segment included in wholesale banking along with the "corporate and investment bank".

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Primary Stock:
Wells Fargo (WFC, 11/17/2017, US $54.15). Equalweight

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We use a variety of valuation methodologies to arrive at our price targets including an enterprise value multiple of estimated future EBITDA and a tangible book value multiple of estimated return on tangible common equity.

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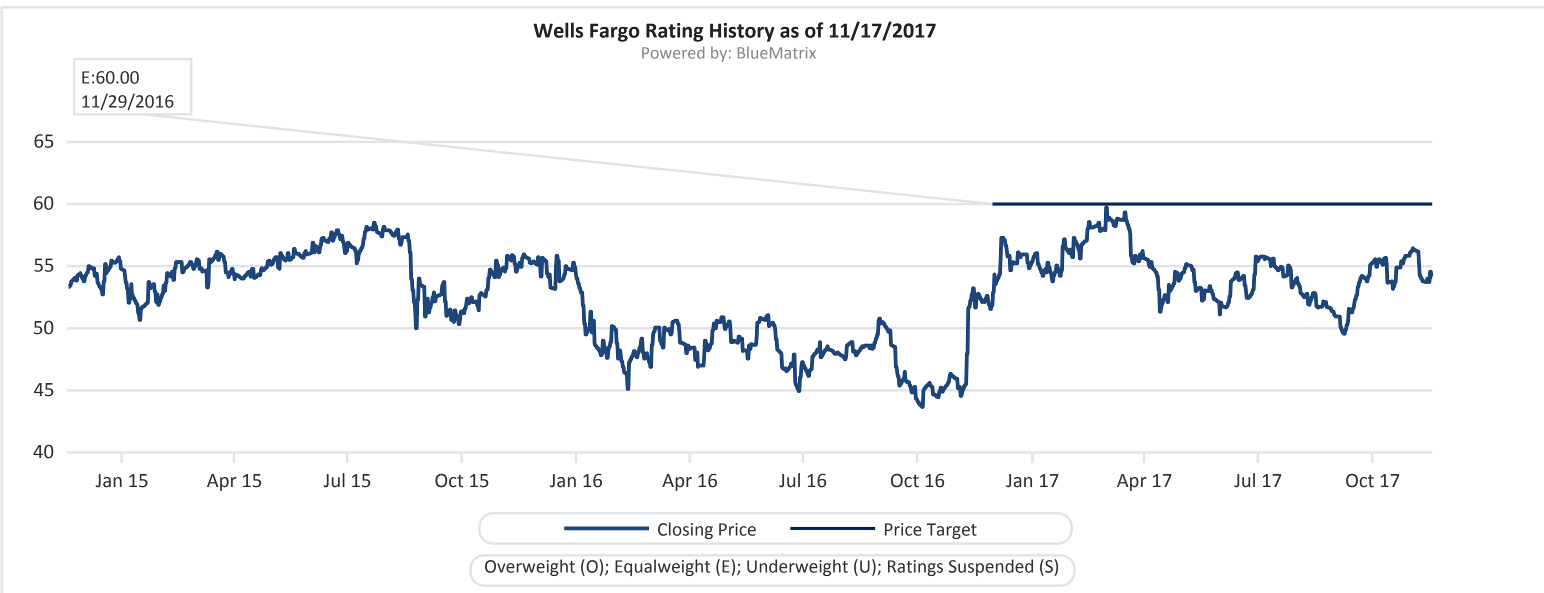

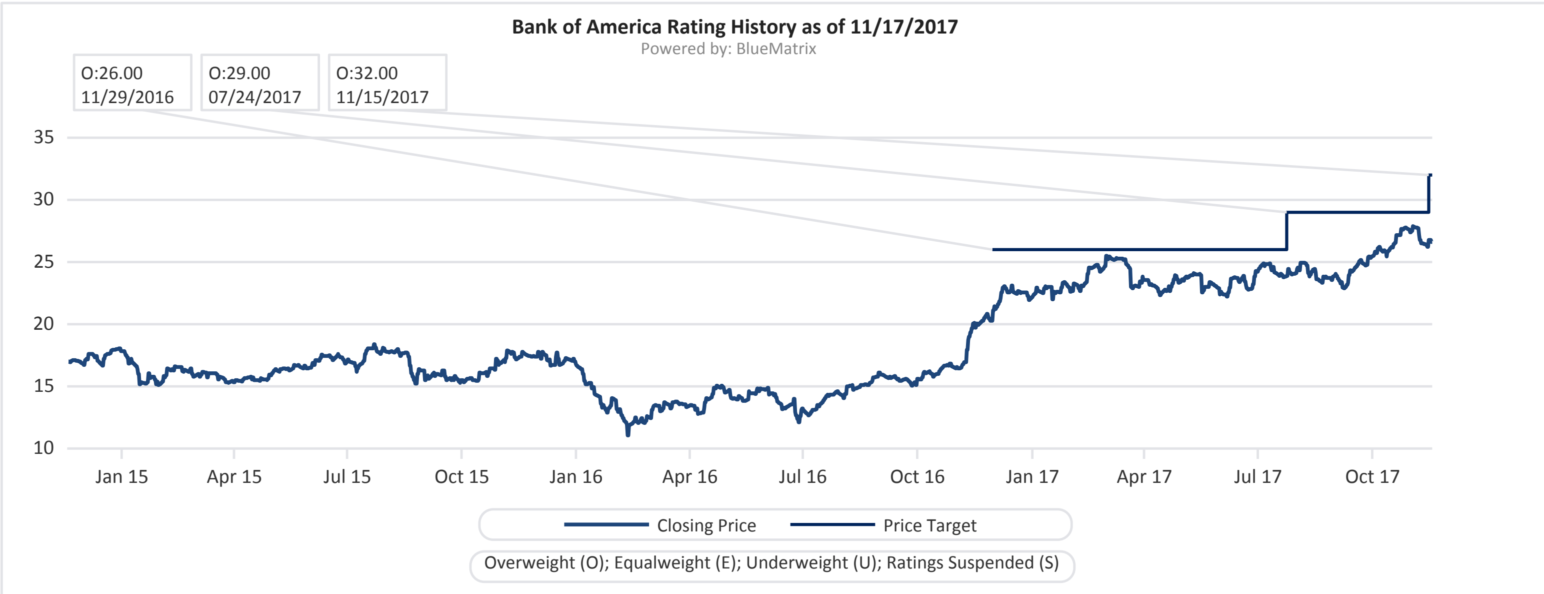

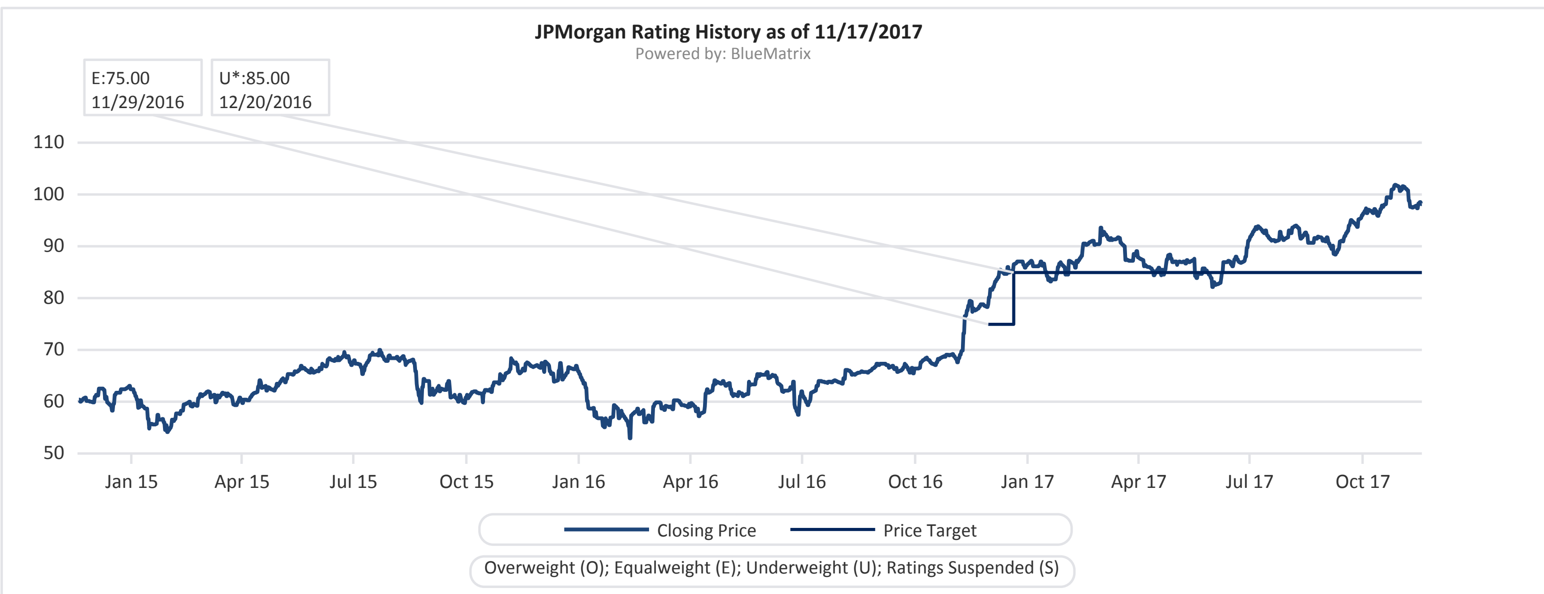

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