BancAnalysts Association of Boston Conference

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Payments, Virtual Solutions, and Innovation

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Payments, Virtual Solutions, and Innovation
## PVSI Businesses

### Deposit Products Group
*Ed Kadletz*
- Consumer checking and savings
- Debit card
- Small business checking

### Cards and Retail Services
*Beverly Anderson*
- General purpose credit card
- Co-branded credit card
- Private label credit card
- Loyalty/rewards programs

### Treasury, Merchant, and Payment Solutions
*Danny Peltz*
- Treasury management
- Merchant services (card acceptance)
- CEO digital portal
- Wells Fargo Gateway

### Virtual Channels
*Jim Smith*
- Online and mobile banking
- 24/7 contact center
- E-mail, chat, and social care

### Operations
*Titi Cole*
- Payment clearing and settlement
- Risk and fraud operations
- Electronic and commercial services
- Enterprise utilities

### Innovation
*Steve Ellis*
- Emerging technologies research and development
- Artificial intelligence
- Innovation labs
- Wells Fargo Accelerator
#1 positions in most of our businesses

**Payments Leadership**
- #1 in Retail deposits (1)
- #1 in Debit card transaction and purchase volume (2)
- #1 in Treasury management (3)
- #1 in ACH originations (4)
- #2 in e-Commerce as merchant acquirer (5)

**Digital Leadership**
- #1 overall in mobile banking (6,7)
- #1 overall in digital mortgage (8)
- #1 in Small business in digital (9)
- #1 in Corporate/Institutional mobile banking, integrated corporate banking site, and web site design (10)

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Payment businesses continue to grow

**Average Deposit Balances**

3Q16 3Q17

+4%

**Consumer POS Purchase Volume (1)**

3Q16 3Q17 3Q16 3Q17

Debit Credit

+5% +4%

**Average Credit Card Balances (2)**

3Q16 3Q17

+5%

**Commercial Card Spend Volume**

3Q16 3Q17

+12%

(1) Includes combined consumer and business debit card activity, and general purpose credit cards only. (2) Includes general purpose credit card only.
...and our customers are digitally engaged

Digital (Online and Mobile) Sessions (1)

- 3Q16
- 3Q17
- +6%

CEO Mobile Channel Sessions

- 3Q16
- 3Q17
- +26%

P2P Payment Volume

- 3Q16
- 3Q17
- +46%

CEO Mobile Money Movement

- 3Q16
- 3Q17
- +30%

(1) Metrics reported on a one-month lag from reported quarter-end; for example, 3Q17 data as of August 2017 compared with August 2016.
Our roadmap for transformation

_PVSI brings together:_

- Broad consumer reach
- Deep business relationships
- Leading positions in consumer and wholesale payments
- Robust digital presence

**Our approach:**

- **Accelerate digital account acquisition** with experiences that are simple and fast, end-to-end
- **Provide best-in-class digital payments** for every customer we serve
- **Deliver personalized advice at scale** to help customers reach their financial goals
- **Expand and integrate our distribution** to reach our customers wherever they are
- **Build a platform for innovation** to re-shape our infrastructure and deliver greater speed and flexibility for customers and team members
Accelerating our pace of innovation

Digital Acquisition

- New customer mortgage Digital account experience, with multi-product offers (in pilot)

Payments

- Instant B2C payment disbursements via Push-to-Card API
- Zelle P2P payments experience in WF mobile app
- Debit card on-off capability in WF mobile app
- Control Tower Phase 1: Customer control over WF accounts and recurring payments (in pilot)

Personalized Advice

- Daily Change: Interactive mobile app encouraging customers to save
- Personalized insights and advice with predictive banking technology
- Intuitive Investor digital advisory account for the next generation of investors (launch expected in Nov)
- Greenhouse: a digital cash management account for new to banking customers (launch expected 1H18)

Expanded and Integrated Distribution

- Card-free ATM access (via one-time password) to Wells Fargo’s 13,000 ATMs
- Secure access to WF services via chatbot on FB messenger (in pilot)
- Make an Appointment API to schedule appointments with WF on non-WF websites
- Over 5,000 WF ATMs enabled with NFC technology for “tap and pay” banking

Platform for Innovation

- Created Artificial Intelligence (AI) COE to develop a common platform and identify use cases for AI across the enterprise
- Identity as a Service
- Phase 1 of Enterprise Digital Identity Service, leveraging thousands of data sources to improve real-time account open experience
- Announced 4 new participants in WF Startup Accelerator; 17 participants currently in program
Accelerate digital account acquisition
Rethinking digital acquisition

Leveraging new technologies and capabilities:

- Advanced authentication
- Internal and external source data
- End-to-end digital application
- Customer-centric underwriting (vs product-centric)
- Instant decisioning
- Real-time account funding
- Instant fulfillment

New Credit Card Digital Acquisition Model (1)

Merchant Services Online Application (launch expected 2Q18)

Digital Mortgage (launch expected 1Q18)

Customer Borrowing Experience (1) (in pilot)

(1) Achieving this vision within and across products will be multi-phase.
Express mobile account open for deposit accounts:

- Simplified application via the Wells Fargo mobile app
- Advanced authentication, including selfie technology
- Pre-filled customer application via upload of picture ID
Today, customers can upload a photo ID to pre-fill application, and soon, they will be able to upload a selfie\(^{(1)}\) to verify their identity.

\(^{(1)}\) Selfie identify verification expected 1H18.
Customers can **easily fund new checking** account with **instant access** to Wells Fargo **mobile banking** and ability to **transfer money using ZelleSM**
5 minute deposit account open

Customers can immediately use **digital debit card** (1) and **access ATMs**

(1) Instant provisioning of digital debit card expected 1Q18.
Provide best-in-class digital payments
Developing payments of the future

Being our customer’s first choice in payments by delivering:

- Fast/real-time money movement
- Convenient access, in the palm of customers’ hands
- Simple and easy to use
- Increased controls and transparency
- Frictionless payments for businesses

(1) Debit card on/off functionality currently in production. Credit card on-off functionality expected 1Q18.
Zelle: A real-time P2P payment experience

From June – September 2017, Wells Fargo customers used ZelleSM to transfer nearly $6B
Managing payment connections
A central hub for customers to view and control access to their Wells Fargo accounts and information:

- Manage connections to Wells Fargo accounts with ease, all in one single, secure place
- Ability to turn cards on and off
- Control data sharing with third parties and devices
- View and manage recurring payments

(1) Full Control Tower functionality will be rolled out in multiple phases; expected to begin rolling out to customers in 2018.
Customers can **turn cards on and off** – anytime, anywhere \(^{(1)}\)

\(^{(1)}\) Debit card on/off functionality rolled out 1Q17; credit card expected 1Q18.
Customers control **when and how their financial data is shared** with third-party sites (e.g., aggregators) (2)

(1) Data sharing capabilities expected to roll out to customers in 2018. (2) Data sharing available through WF Gateway (API developer platform).
Customers view **recurring payments** with merchants, websites, and other places where payments are stored (1)

(1) Ability to view recurring payments expected in 2018.
Deliver personalized advice at scale
Relevant advice in the moment

**Predictive Banking**, offering insights into spending patterns, expected to be available to all retail deposit customers by 1Q18.

**FICO Score** available to all Wells Fargo customers.

**Digital cash management account** for new-to-banking customers (launch expected in 1H18).

**Daily Change** app encourages customer saving habit.

**Intuitive Investor** digital robo-advisory account for next generation investors (launching in November 2017).
Anticipating customers’ needs with personalized insights and guidance:

- Analysis of customer transactions and payment history
- Insightful guidance “in the moment”, with actionable recommendations to build financial health
- Integrated with Wells Fargo mobile app in an easy to understand format
Customers receive **insights** with ability to **take action instantly** within the app (1)

(1) Insights include details on account information, transaction history, and interactive charts.
Predictive Banking

For example, when we notice foreign transaction activity, we ask customers if they are traveling and remind them to set up a travel plan.
Greenhouse by Wells Fargo is a digital banking experience that promotes long-lasting financial well-being:

- A bank in the palm of your hand
- Open an account – anywhere, anytime
- Money management tools to help customers control spending and stay on top of bills
- No ability to overdraft
- Relevant ‘in the moment’ notifications & insights
- Access to Wells Fargo’s 13,000 ATMs

(1) Digital cash management account experience is expected for release in 1H18.
Digital cash management account

Customers manage their cash all in one place—separating their balance for recurring bills from their day-to-day spending.
Digital cash management account

When deposits come in, customers can either **allocate their money themselves, or get guidance** on how to distribute the funds based on transaction history.
They also receive **reminders for upcoming and due bills**, and can pay those bills **directly from the app**.
Digital cash management account

For their discretionary spending, customers can set weekly limits to help them stay on track.
Expand and integrate our distribution
Being everywhere our customers are

Traditional

Emerging

Nearly 2B interactions in 3Q17, across digital sessions, branch and ATM visits, and phone calls
Wells Fargo Chatbot on Facebook Messenger:

- Piloted with 5k customer and team members
- After authentication, can get answers to servicing questions
- 55% of bot users are under 35, and nearly 80% are under 45 (1)

(1) WellsFargoBankingAssistant Dashboard at developers.facebook.com, as of October 31, 2017.
Extending chatbot and messaging to WF mobile app

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**Chatbot in Wells Fargo mobile app**
- Launch of messaging chatbot within WF mobile app (2)

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Extending messaging capabilities to contact centers

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Integration of messaging with Contact Centers

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Integrate mobile authentication and ATM experience

One Time Password/ Card-free ATM

- Card-free transactions at Wells Fargo’s 13,000 ATMs
- First large U.S. bank to offer across entire network
- Over 3MM customer transactions since launch in March 2017
Integrate mobile wallets with ATMs and branches

**One Time Password/ Card-free ATM**
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**NFC-Enabled ATMs (“Tap and transact”)**
- Rolled out to over 5,000 ATMs
- Leverages digital wallet (e.g., Apple Pay, Android Pay)
- Leveraged for authentication in branches (1)

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(1) By end of November 2017, every WF branch expected to have at least one NFC-enabled pinpad. By end of 2018, all pinpads in all branches expected be NFC-enabled.
Integrate WF mobile app with ATMs and branches

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**Pre-Stage ATM/ Branch Proof of Concept (2)**
- Informs team member before customer arrives at branch

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Build a platform for innovation
Building a platform for innovation

**Artificial Intelligence**
- 6 Machine learning proof of concepts
- 7 Natural Language Processing projects

**Advanced Authentication**
- Passive authentication (e.g., real-time identity services)
- New prospect verification capabilities (e.g., selfie technology)
- Biometrics (e.g., fingerprint, eye scan)
- Geolocation
- Device binding

**APIs**
- 20 APIs planned for deployment by end of 2017
- Developer portal 2.0 launch (expected Dec 2017)

**Data Infrastructure**
- Single sourcing strategy (e.g., “data lake”)
- Rationalized set of data provisioning points (e.g., “golden” data)

**Robotics Process Automation**
- Proofs of concept addressing report generation, QA/QC, and data entry processes

**Speech/Messaging**
- Delivering financial services and information through virtual assistants and chatbots

**Startup Accelerator**
- 6 companies announced in 2017; 17 total in portfolio
- Integrating emerging technologies into WF businesses and processes
Summary

Our Opportunities:

- Accelerate digital account acquisition
- Provide best-in-class digital payments
- Deliver personalized advice at scale
- Expand and integrate our distribution
- Build a platform for innovation

By coming together, we have transformed:

- Simple and easy to use products and value propositions
- Next generation digital experiences
- Real-time money movement
- Increased customer control and transparency
Appendix
Forward-looking statements:
This document contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, we may make forward-looking statements in our other documents filed or furnished with the SEC, and our management may make forward-looking statements orally to analysts, investors, representatives of the media and others. Forward-looking statements can be identified by words such as “anticipates,” “intends,” “plans,” “seeks,” “believes,” “estimates,” “expects,” “target,” “projects,” “outlook,” “forecast,” “will,” “may,” “could,” “should,” “can” and similar references to future periods. In particular, forward-looking statements include, but are not limited to, statements we make about: (i) the future operating or financial performance of the Company, including our outlook for future growth; (ii) our noninterest expense and efficiency ratio; (iii) future credit quality and performance, including our expectations regarding future loan losses and allowance levels; (iv) the appropriateness of the allowance for credit losses; (v) our expectations regarding net interest income and net interest margin; (vi) loan growth or the reduction or mitigation of risk in our loan portfolios; (vii) future capital or liquidity levels or targets and our estimated Common Equity Tier 1 ratio under Basel III capital standards; (viii) the performance of our mortgage business and any related exposures; (ix) the expected outcome and impact of legal, regulatory and legislative developments, as well as our expectations regarding compliance therewith; (x) future common stock dividends, common share repurchases and other uses of capital; (xi) our targeted range for return on assets and return on equity; (xii) the outcome of contingencies, such as legal proceedings; and (xiii) the Company’s plans, objectives and strategies. Forward-looking statements are not based on historical facts but instead represent our current expectations and assumptions regarding our business, the economy and other future conditions. Investors are urged to not unduly rely on forward-looking statements as actual results could differ materially from expectations. Forward-looking statements speak only as of the date made, and we do not undertake to update them to reflect changes or events that occur after that date. For more information about factors that could cause actual results to differ materially from expectations, refer to the “Forward-Looking Statements” discussion in Wells Fargo’s press release announcing our third quarter 2017 results and in our most recent Quarterly Report on Form 10-Q, as well as to Wells Fargo’s other reports filed with the Securities and Exchange Commission, including the discussion under “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2016.