

CORPORATE & INVESTMENT BANK

February 26, 2019

FIRM OVERVIEW

- CORPORATE & INVESTMENT BANK
- CONSUMER & COMMUNITY BANKING
- ASSET & WEALTH MANAGEMENT
- COMMERCIAL BANKING

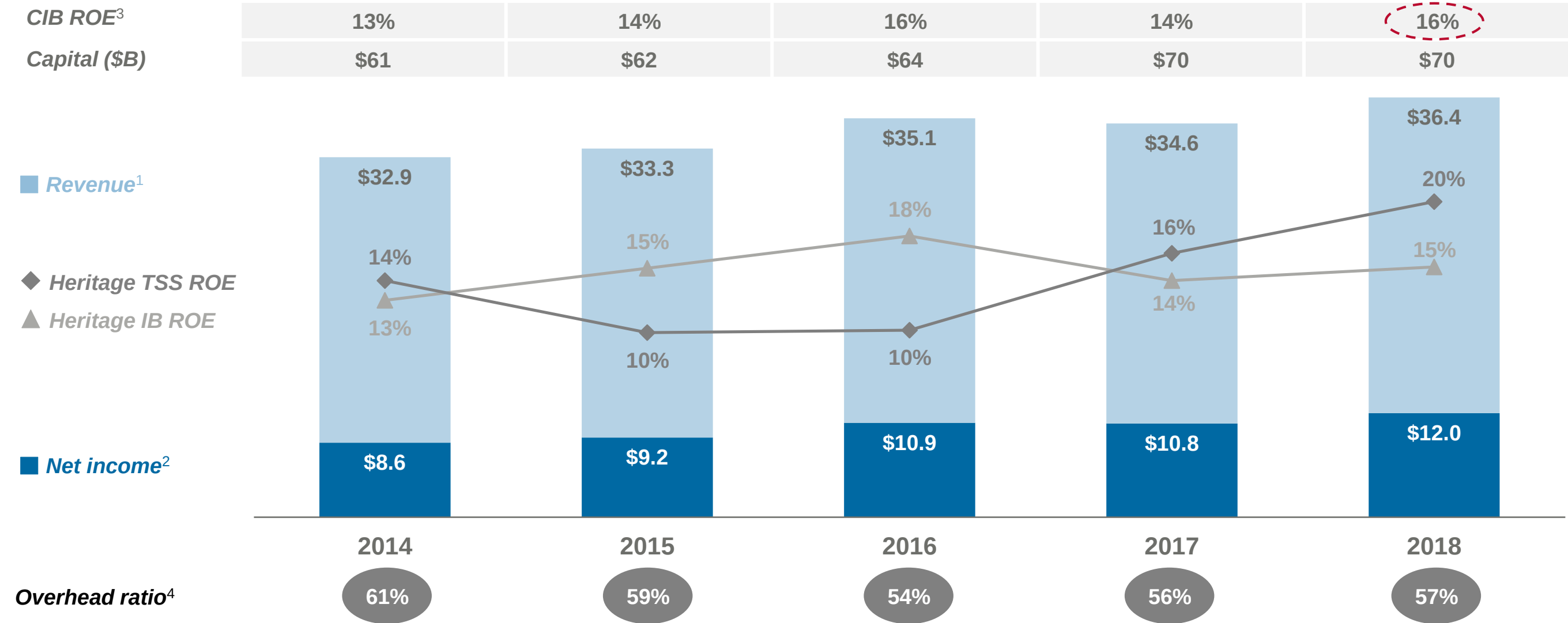
JPMORGAN CHASE & CO.

Agenda

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We delivered strong results and had a record year in 2018

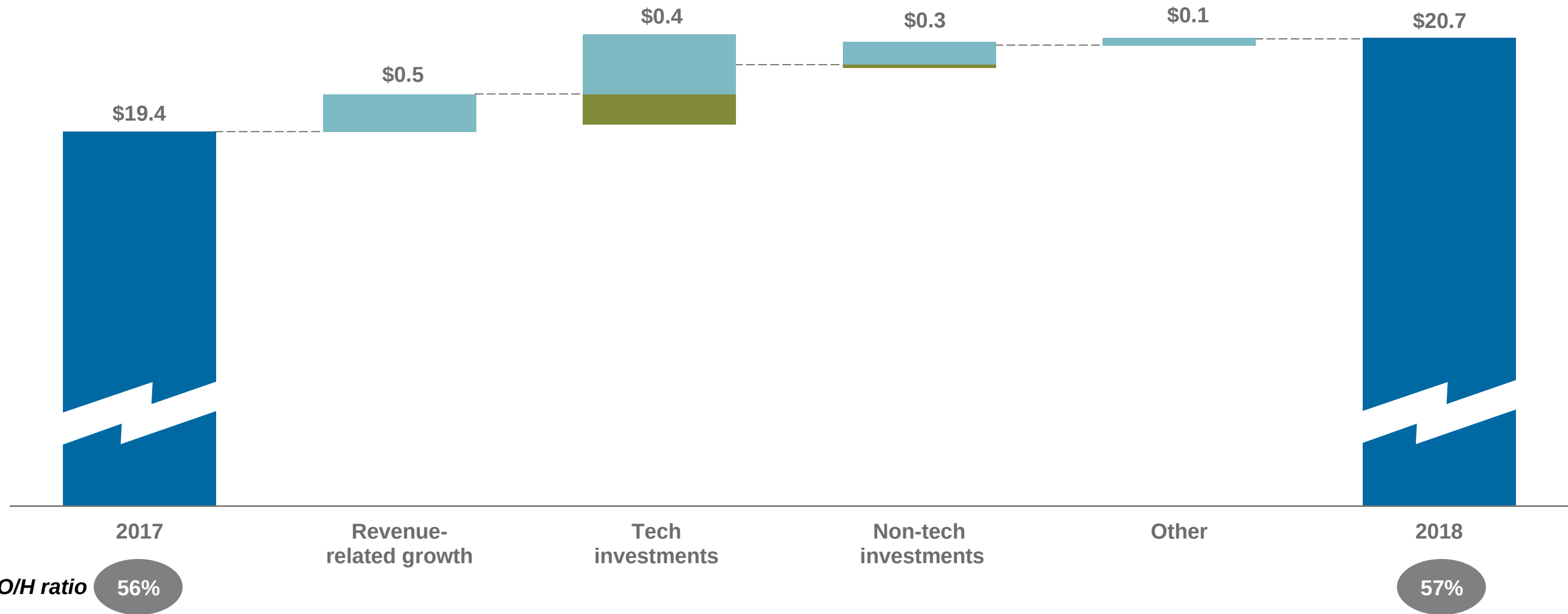
Adjusted revenues¹ and income² (\$B)



Note: For footnoted information, refer to Page 33

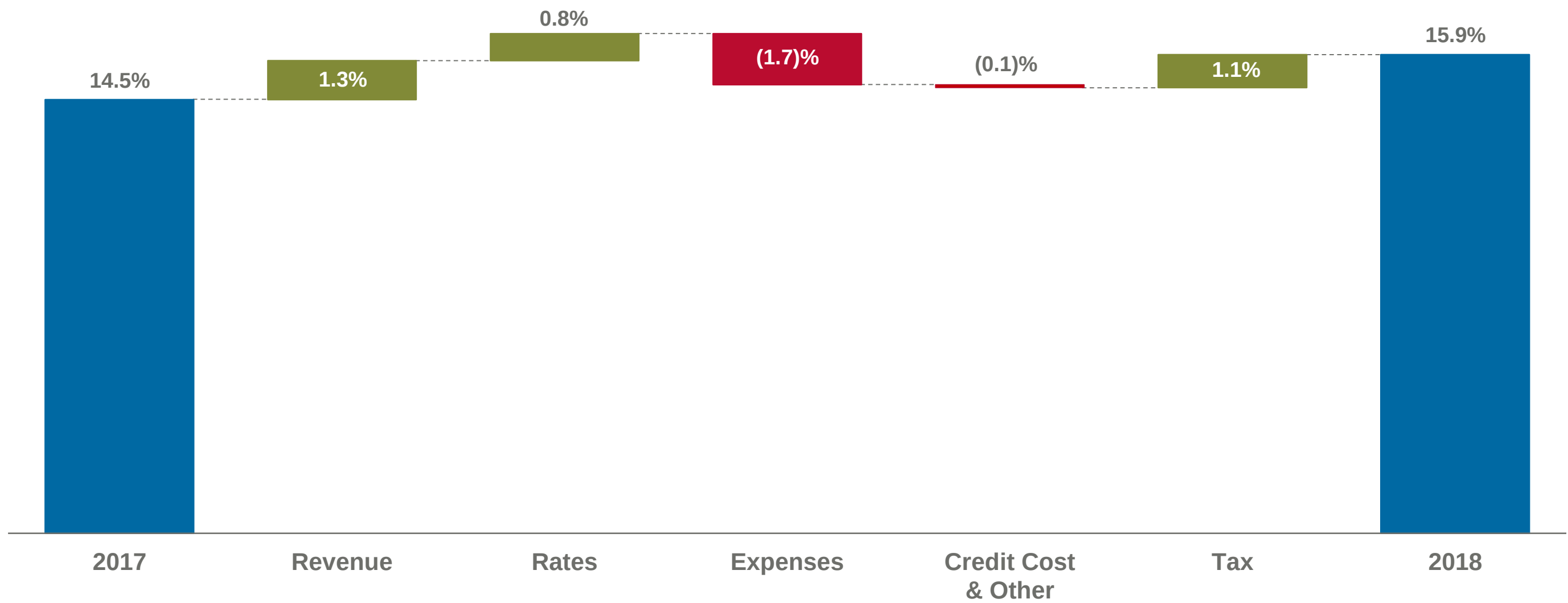
Expenses increased due to higher revenues and additional investments

2017 to 2018 (\$B)¹



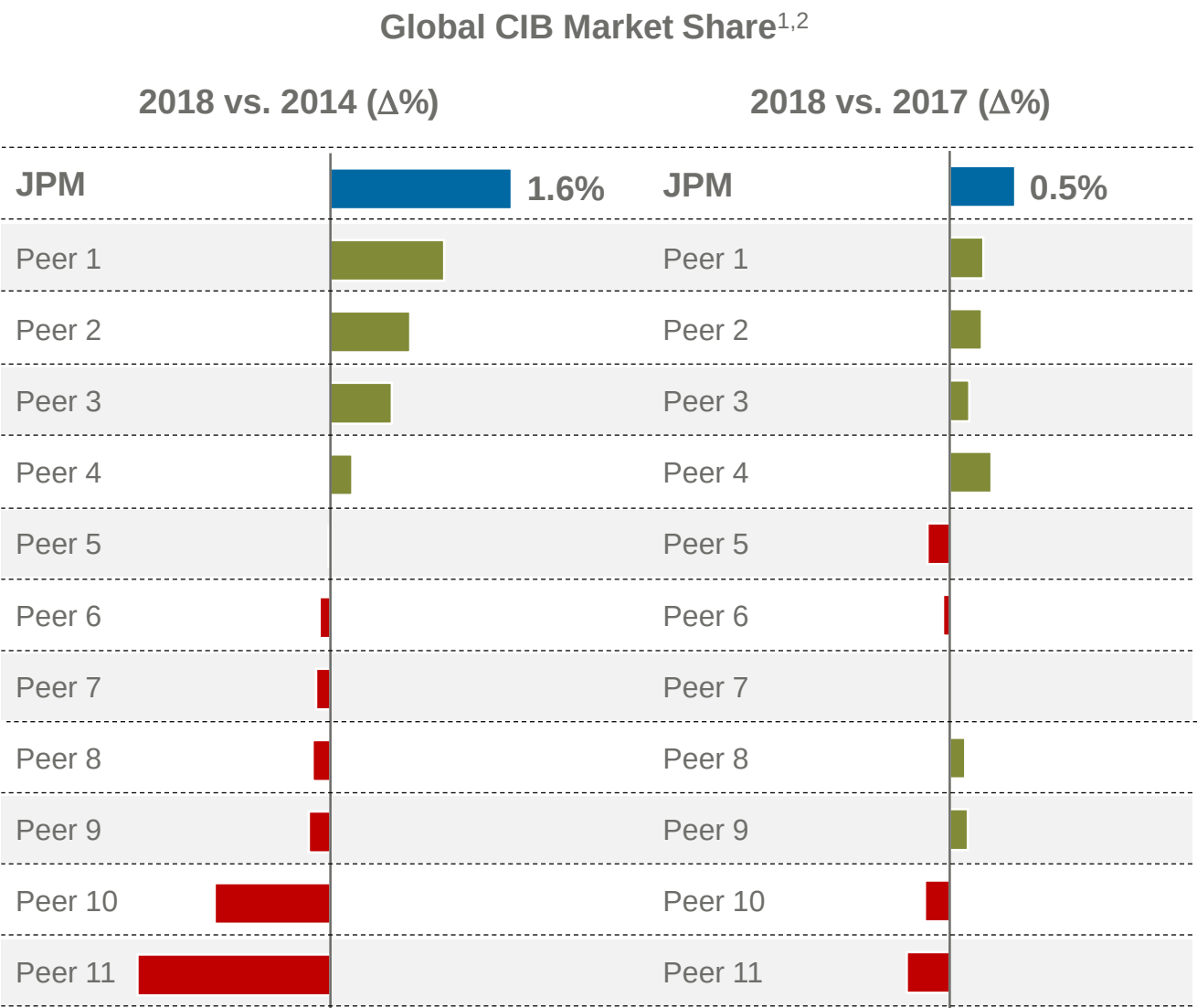
¹ Expense adjusted for legal expense

ROE increased from 14.5% in 2017 to 15.9% in 2018



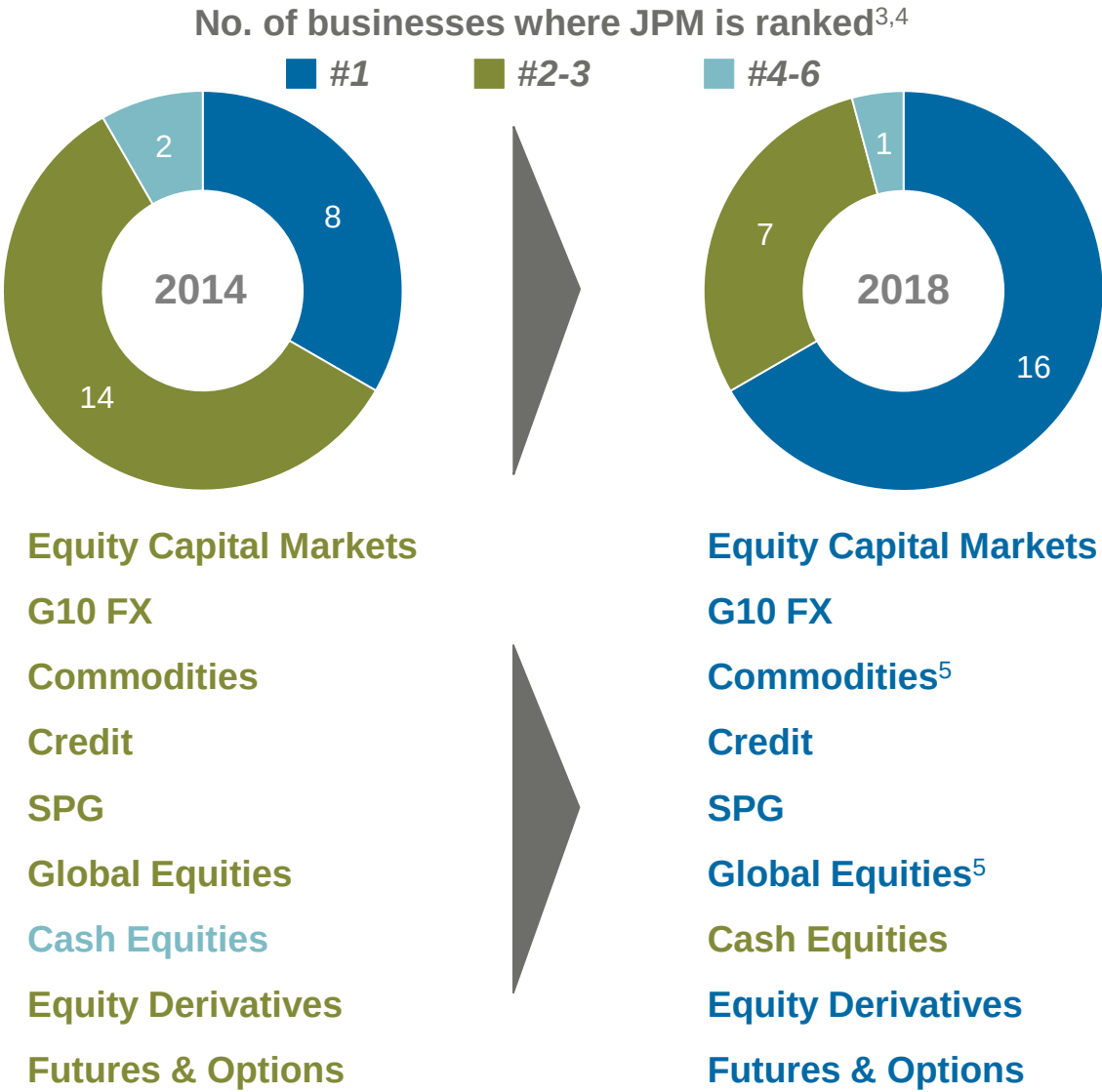
CIB gained market share faster than peers, strengthening our leadership across businesses

Gaining market share at a faster rate than any of our peers



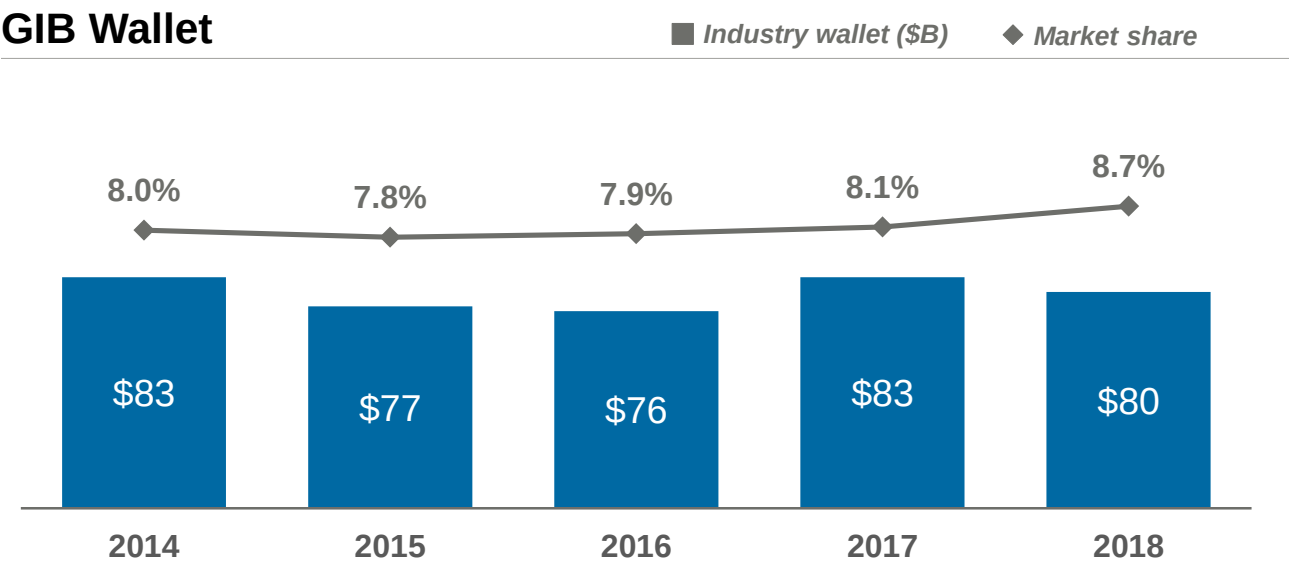
Note: For footnoted information, refer to Page 34

Strengthening global leadership positions across businesses



Global Investment Banking (GIB) grew share across all regions resulting in 8.7% market share in 2018 (highest since 2009)

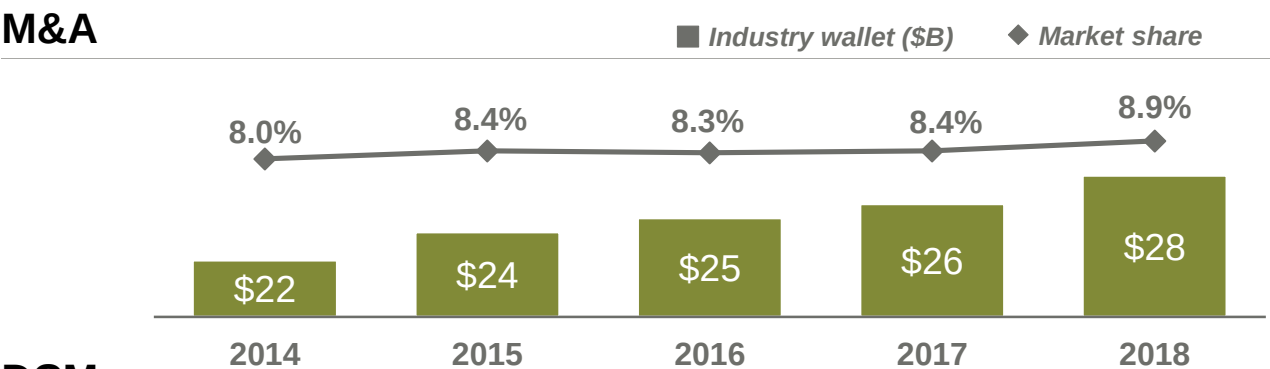
GIB Wallet



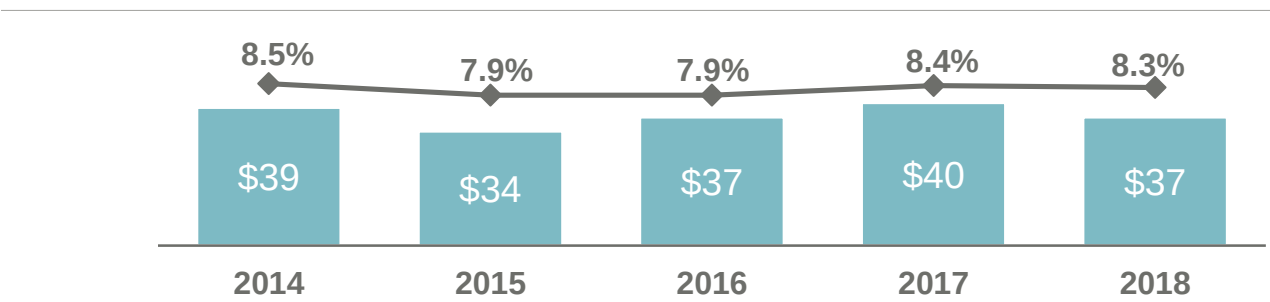
Growth in GIB share of wallet across regions, 2014 to 2018¹



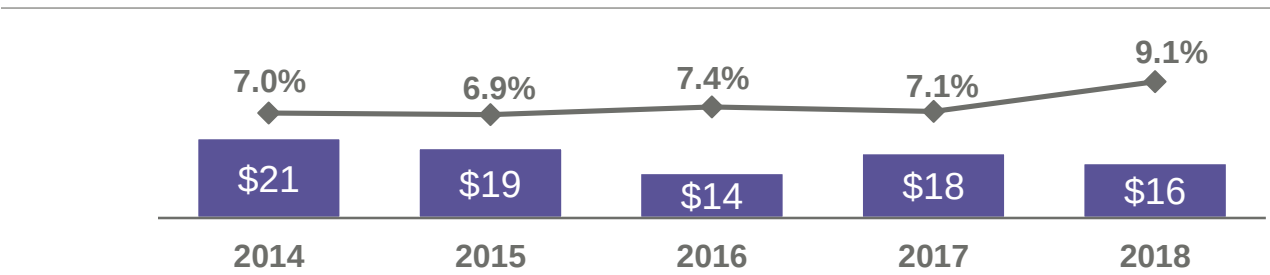
M&A



DCM



ECM



#1 worldwide in Investment Banking fees for 10 consecutive years

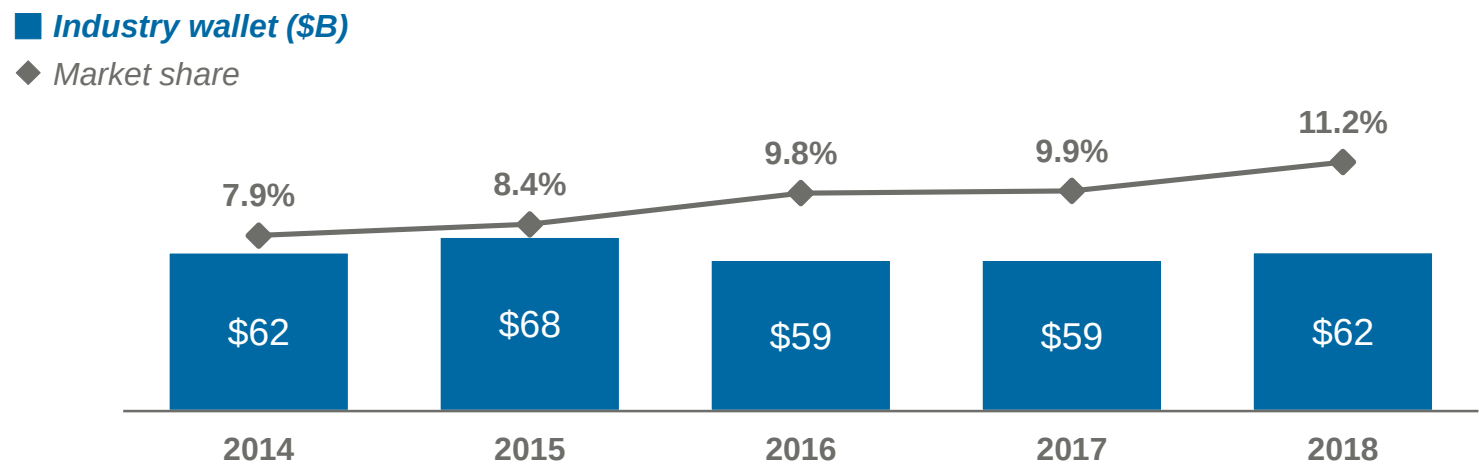
Participated in 7 of the 10 top fee paying deals in 2018

Generated \$7.5 billion in fees in 2018, a full year record

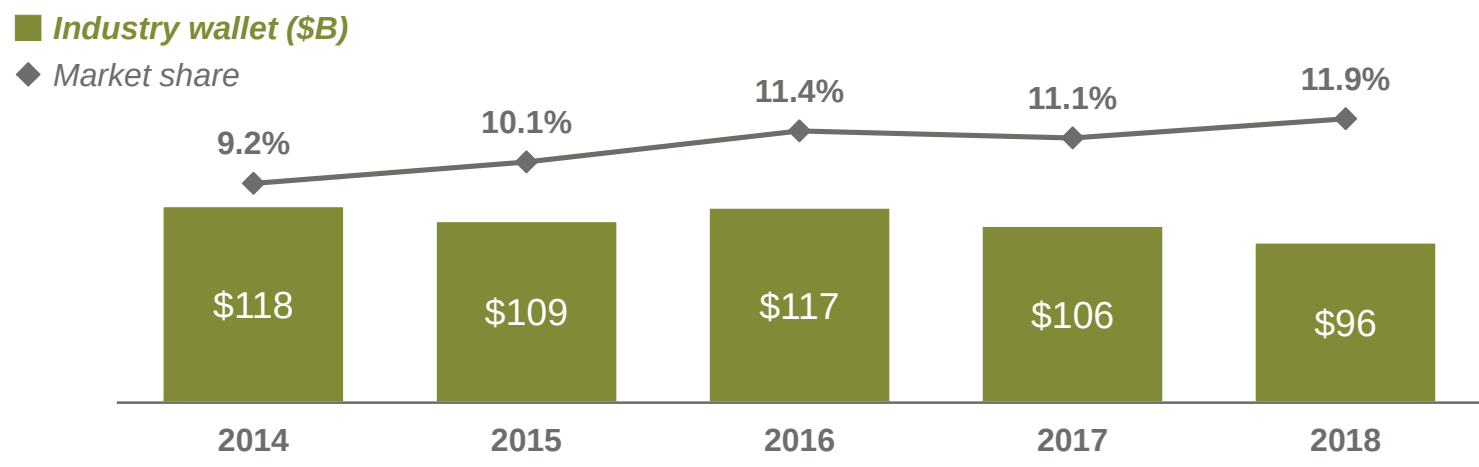
¹ Growth figures are rounded to the nearest tenth
Source: Dealogic as of Jan 1, 2019; ECM excludes shelf deals. DCM excludes money market, short-term debt

Markets business continued to increase market share across products while delivering strong returns

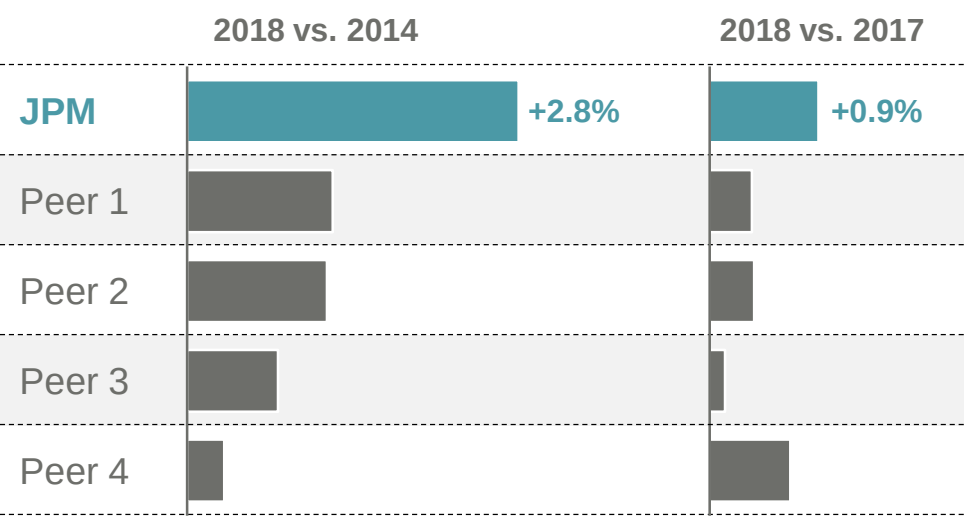
Equities¹



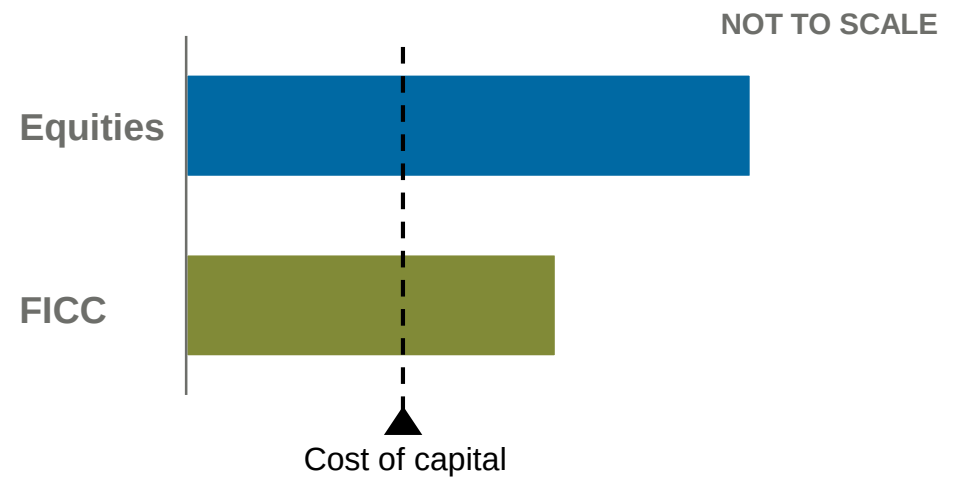
FICC¹



Global Markets market share (Δ%)^{1,2,3}



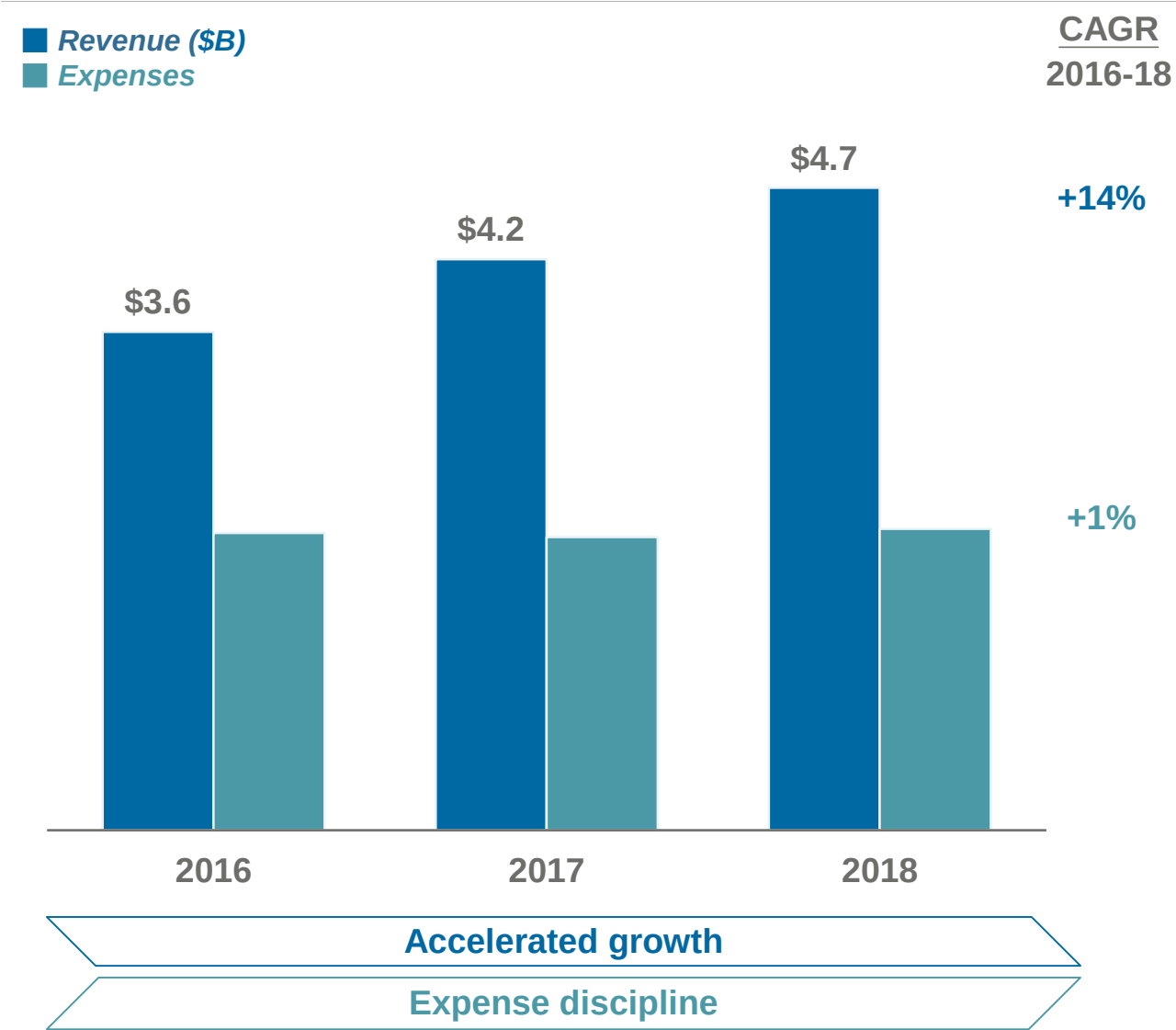
Marginal ROE, 2018



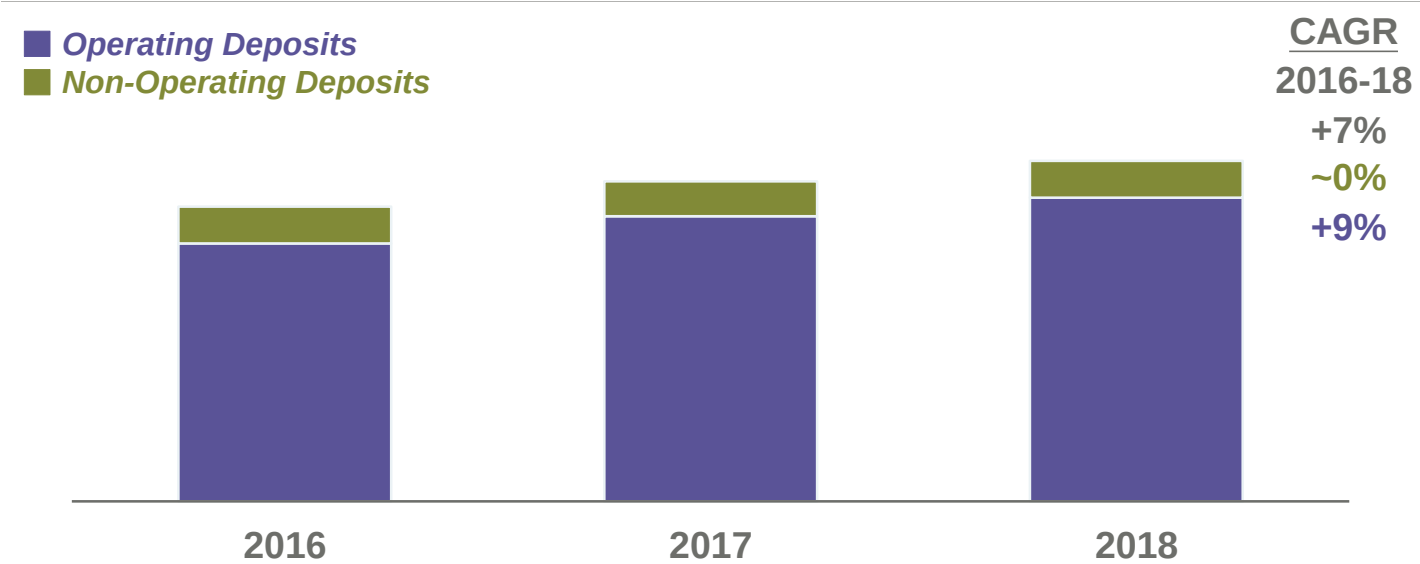
Note: For footnoted information, refer to Page 35

CIB Treasury Services business has grown significantly since 2016 through a combination of rising rates and organic growth

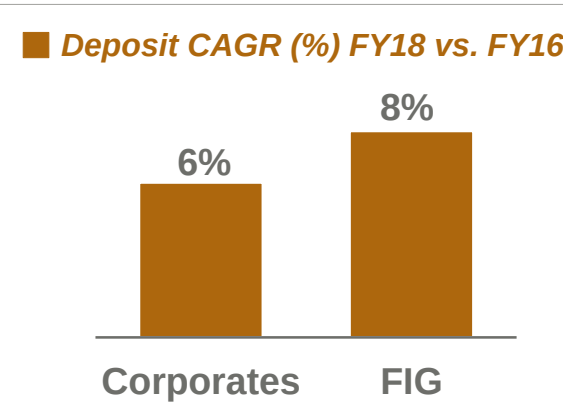
Strong growth in CIB TS revenue and operating leverage



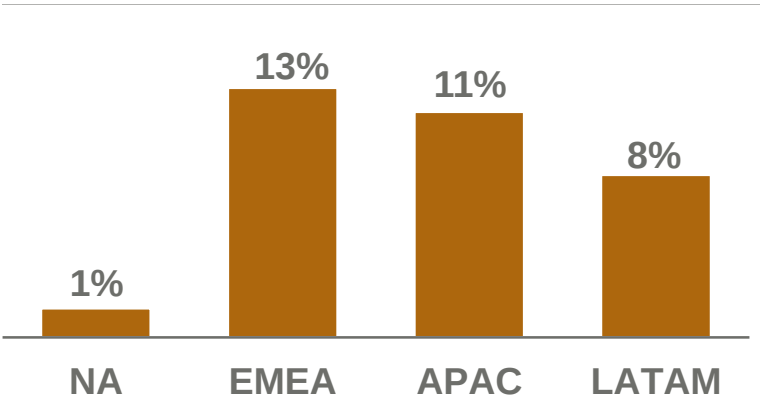
Strong growth in deposits...



... across all client segments

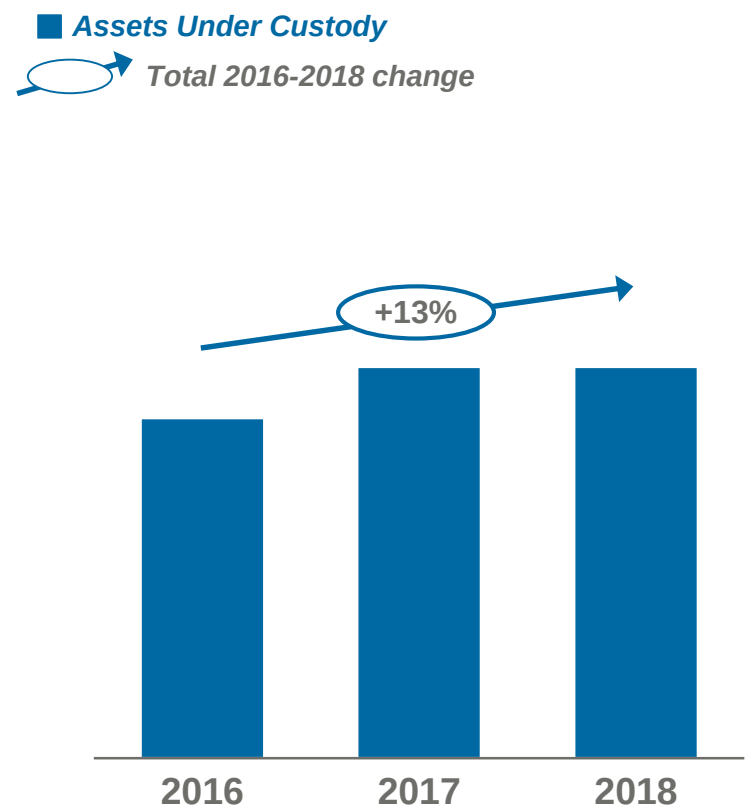


...and in all regions



Securities Services continues to transform itself; unprecedented new business wins and improved operating models have yielded record financial results

Winning industry-leading mandates...

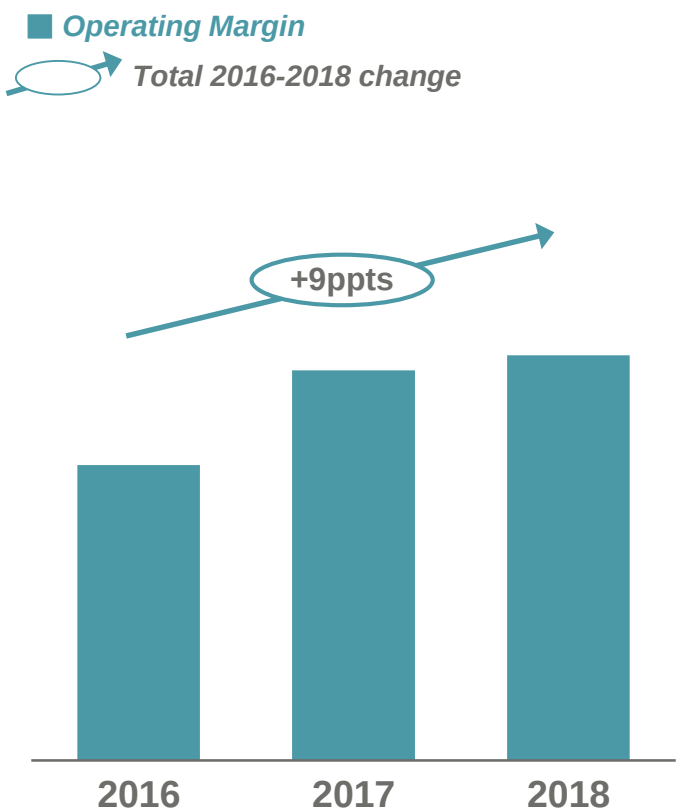


Significant **growth and improvements in scale** as we optimized our infrastructure

...resulted in highest recorded revenue and operating margins



Transformed the business to deliver **operational excellence** and improved platform stability



Investments in technology driving **scale and efficiencies**

We continue to focus on technology investments, productivity and efficiency

We continue to invest in...

■ Best in class client experiences

- Digital, seamless, omni-channel user experiences
- Focus on personalization and intelligence
- Simple and self service

■ Leveraging and exposing APIs

- Standardized, re-usable components
- Internally within JPM and externally with clients

■ Data and advanced analytics

- Embedded across the product portfolio
- Enable data-driven decision making

■ Resilient and scalable infrastructure

- Multi-cloud, hybrid-cloud strategy
- Optimization and rationalization

■ Proactive cybersecurity to keep pace with evolving threat landscape

- Continuous data protection
- Secure client authentication

■ Innovation by leveraging emerging technologies

- Artificial Intelligence / Machine Learning
- Containers
- Distributed Ledger

To achieve this, we are driving productivity and efficiency through a transformation across our Technology organization

Software Engineering Efficiency

Improve the speed, quality and security of software delivery

Platform Simplification

Drive agility, lower costs and improve time to market

Portfolio Governance

Provide transparency, consistent tooling and governance of the investment lifecycle

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Select Markets topics for today



Growth in Equities

- Multi-year performance, especially in Cash Equities and Prime Finance
- Key focus areas for the Equities franchise going forward



Impact of electronification

- Drivers of electronification and its impact on client needs
- Pace of electronification and estimated impact to overall Markets franchise



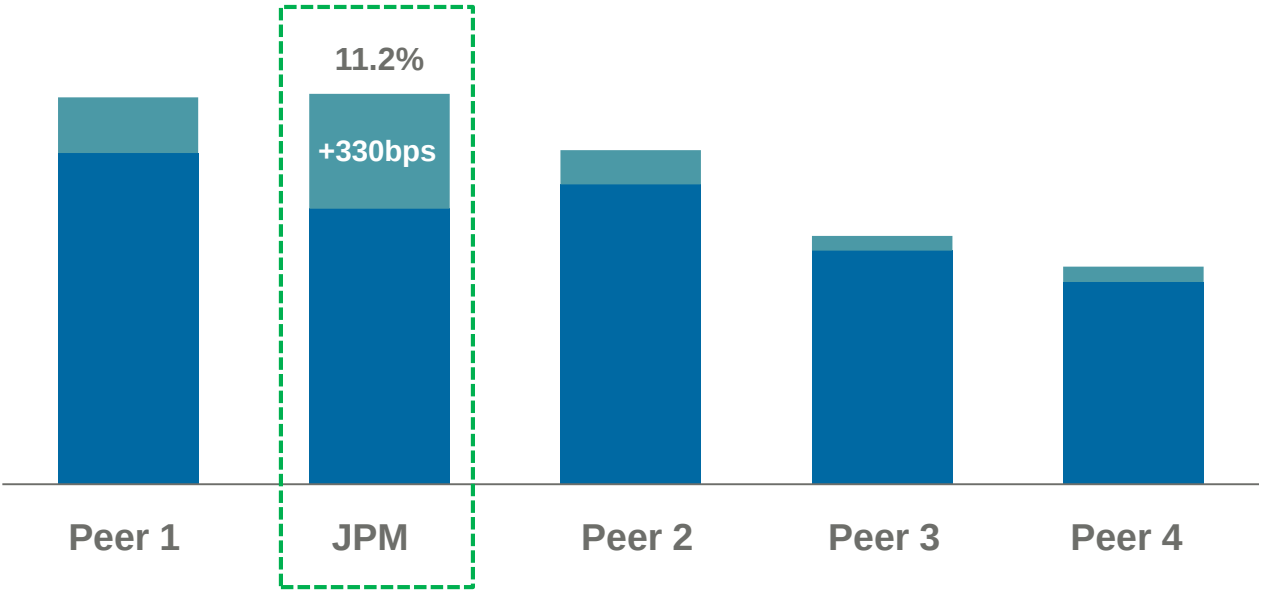
Performance of client franchise

- Growth in share across Institutional and Corporate clients
- Investments to help address our clients' evolving needs

Our Equities franchise has steadily gained market share across our key products, benefiting from multi-year investments in execution capabilities

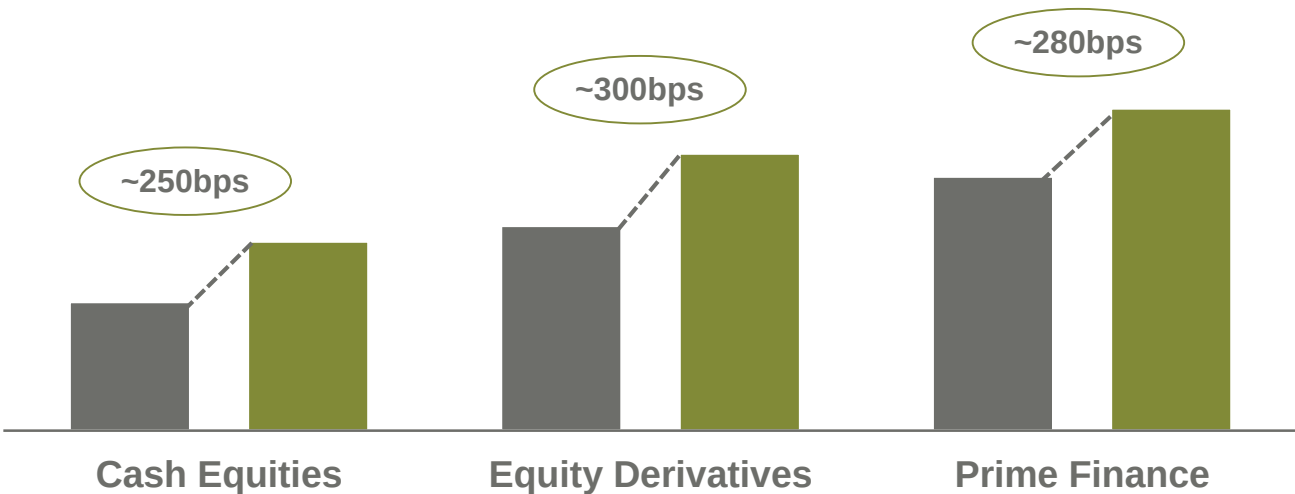
Our market share increased 330bps over the last 5 years...

Market share^{1,2,3} ■ 2014 ■ Increase from 2014 to 2018 NOT TO SCALE



...driven by improved performance across all products

JPM market share¹ ■ 2014 ■ 2018 NOT TO SCALE



Cash Equities: Improved ranking from #6 in 2014 to #3 in 2018

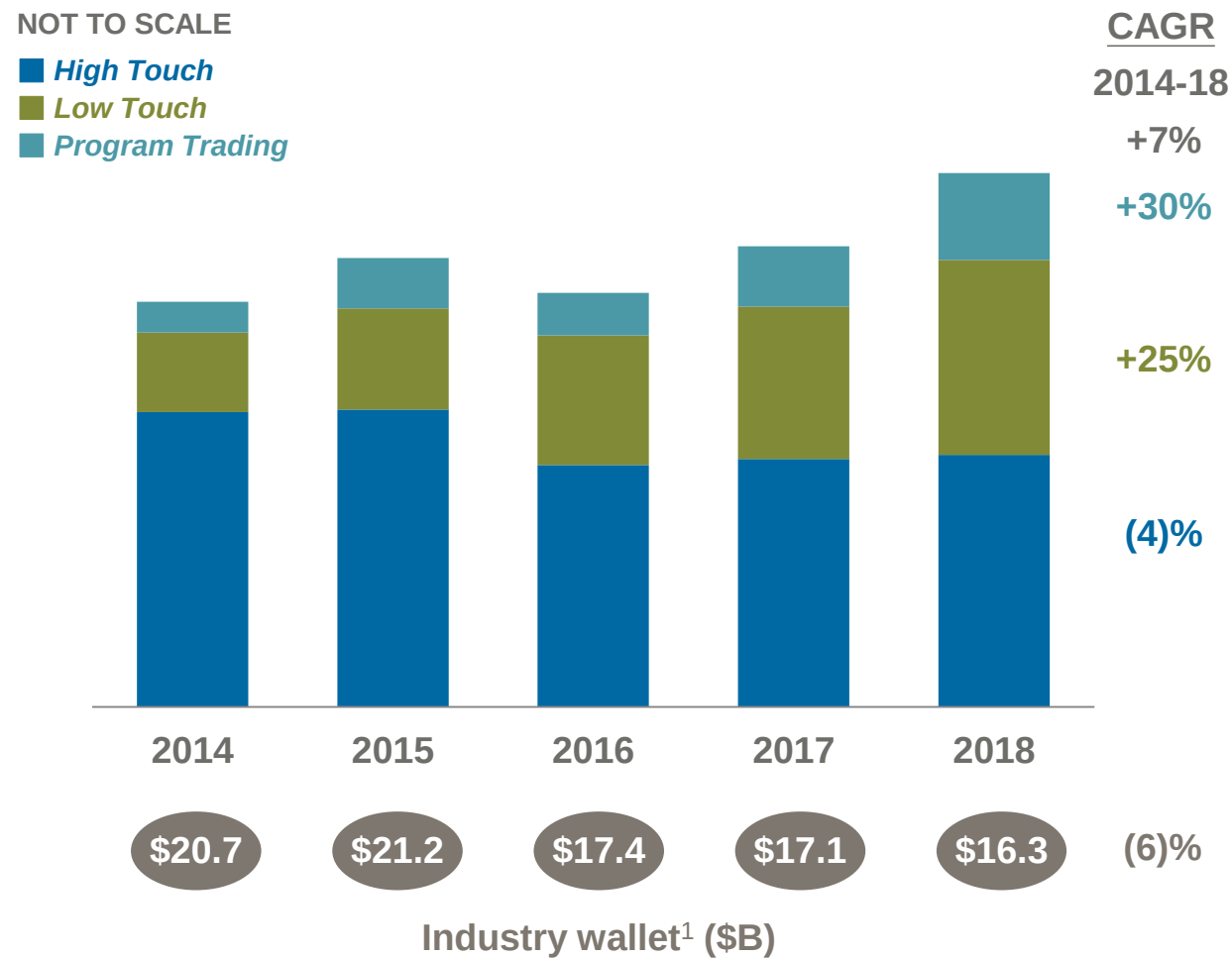
Equity Derivatives: Ranked #1 since 2015

Prime Finance: Ranked #2 since 2016

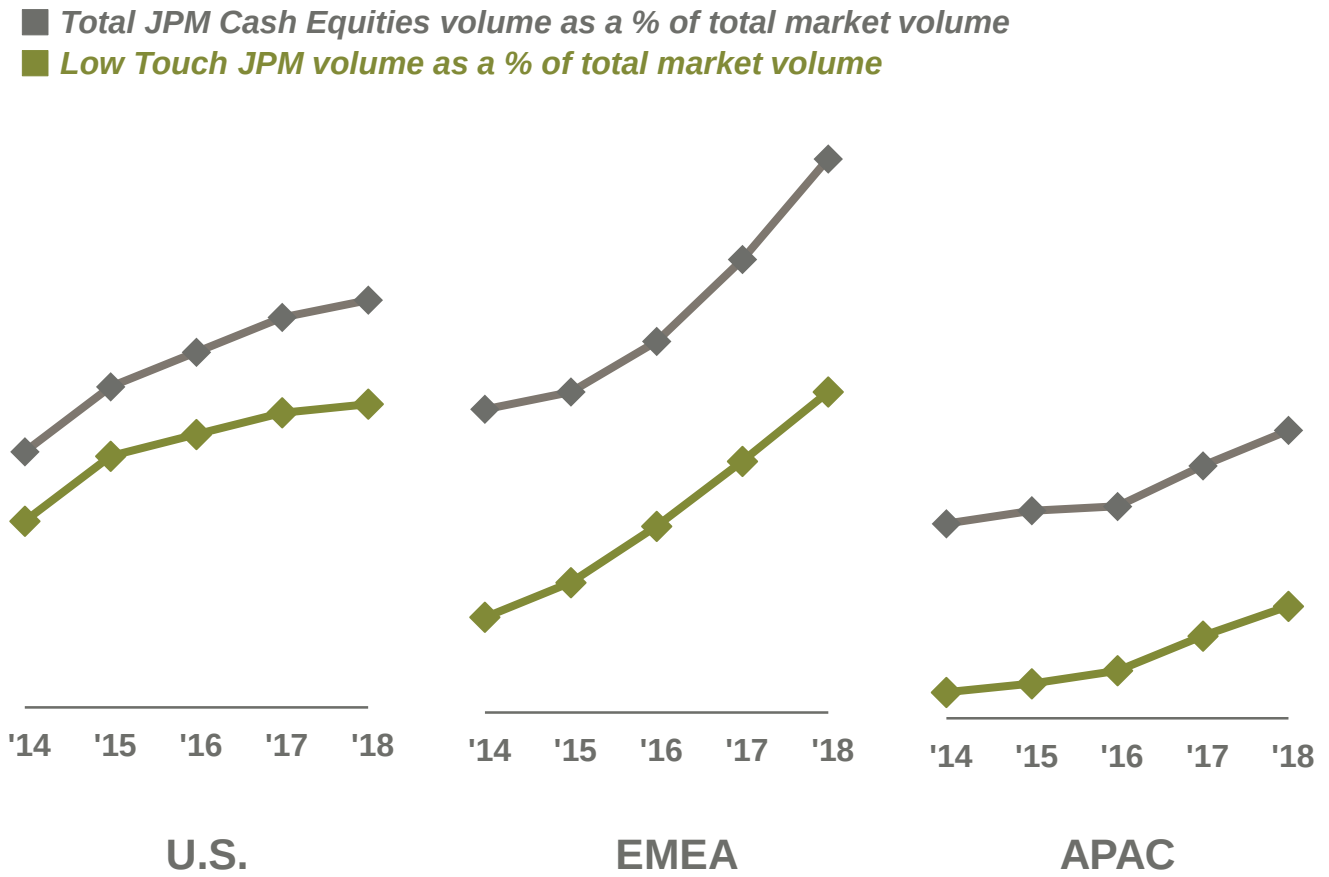
Note: For footnoted information, refer to slide 36

Sustained investments and focus in Cash Equities has spurred substantial growth

Global Cash Equities revenue



Increase in share of Cash Equities volumes driven by Low Touch

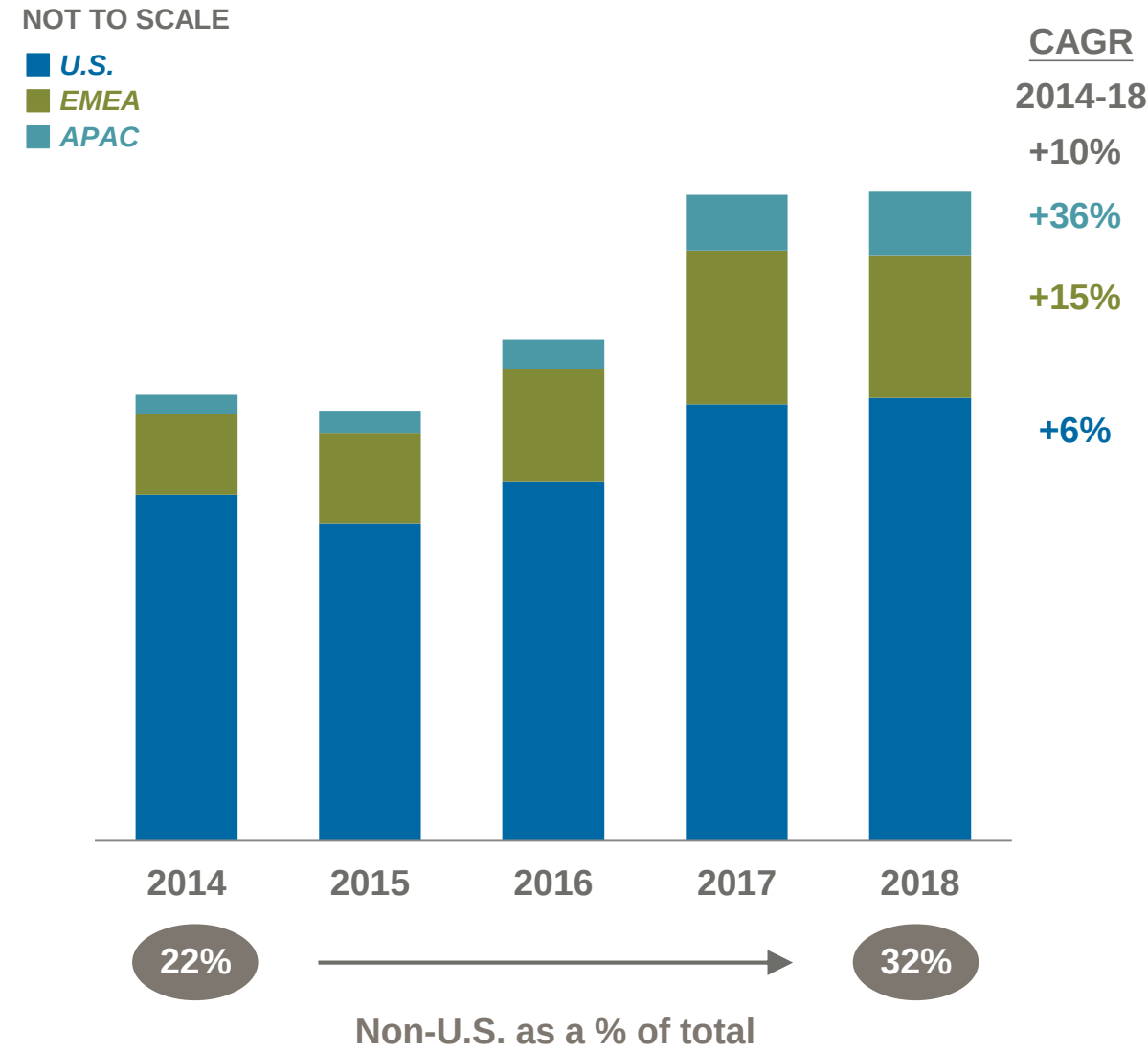


Our Cash Equities business is benefiting from stronger execution capabilities, higher Low Touch volumes and increased global reach

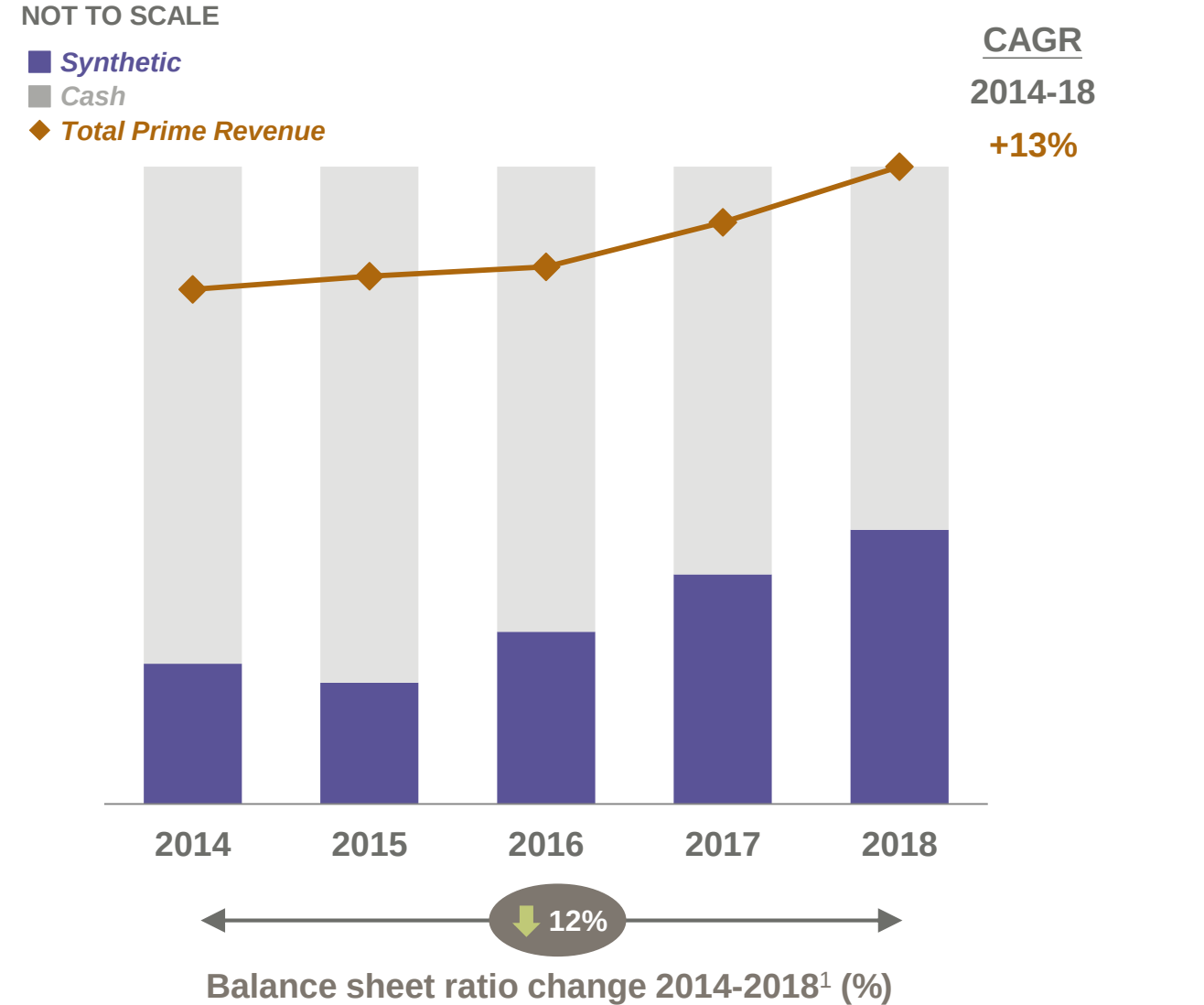
¹ Source: Coalition, preliminary 2018 analysis of global industry revenue pool

Market share gains in all regions yielded record revenue and client balances in Prime Finance

Prime Finance Client Balances by Product Region



Synthetics as a % of Total Global Prime Finance Revenue



¹ FY Average Third Party Assets divided by FY Average Gross Client Financing Balances

Equities franchise will continue to pursue technology and talent investments

Pillars of our strategy

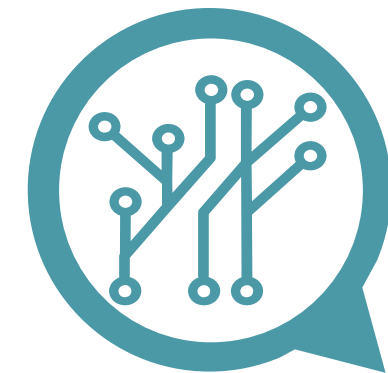
Invest in product and technology



Expand scale and geographic reach



Enhance coverage, service and operational framework



2019 performance will be market dependent but expect scale, liquidity solutions and client facing platforms to be key differentiators

Electronification has been primarily driven by two types of factors and has created an even greater need for more sophisticated execution tools

Key types of electronification drivers



Organic

- Electronification driven by **client and dealer demand for choice, transparency, liquidity and efficiency**
- This **is a steady long term trend** that is stabilizing in the most standardized markets such as FX
- As a result, clients benefit from increasing innovation and execution **tools which reduce execution costs**



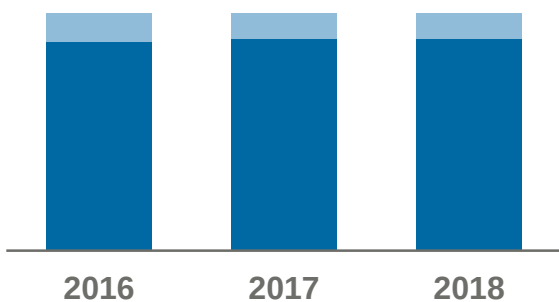
Regulatory

- **Regulations around execution standards** (most recently MiFID II) have also acted as a catalyst for some asset classes and driven greater electronification
- As a result, clients are looking to leverage work flow benefits of electronic execution to **reduce operational costs**

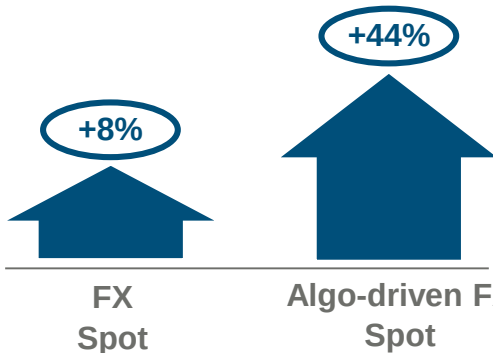
Illustration of impact over last few years

FX Spot

■ *Electronic volumes as a % of total*

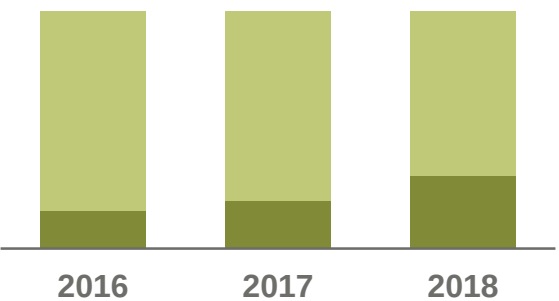


2017-2018 growth in electronic volumes

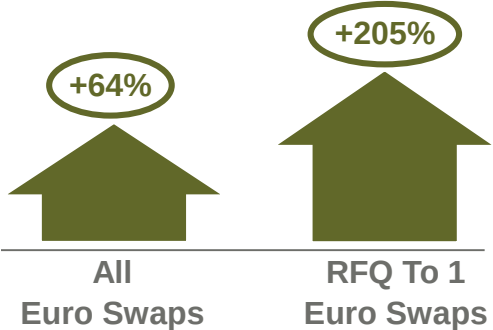


Euro Swaps¹

■ *Electronic volumes as a % of total*



2017-2018 growth in electronic volumes



Electronification continues to drive client need for more sophisticated execution tools to reduce execution and operational costs

¹ Euro Swaps volumes exclude Internal and Compression trades

We are investing in technology to provide clients with more sophisticated execution tools

Example: Algo Central

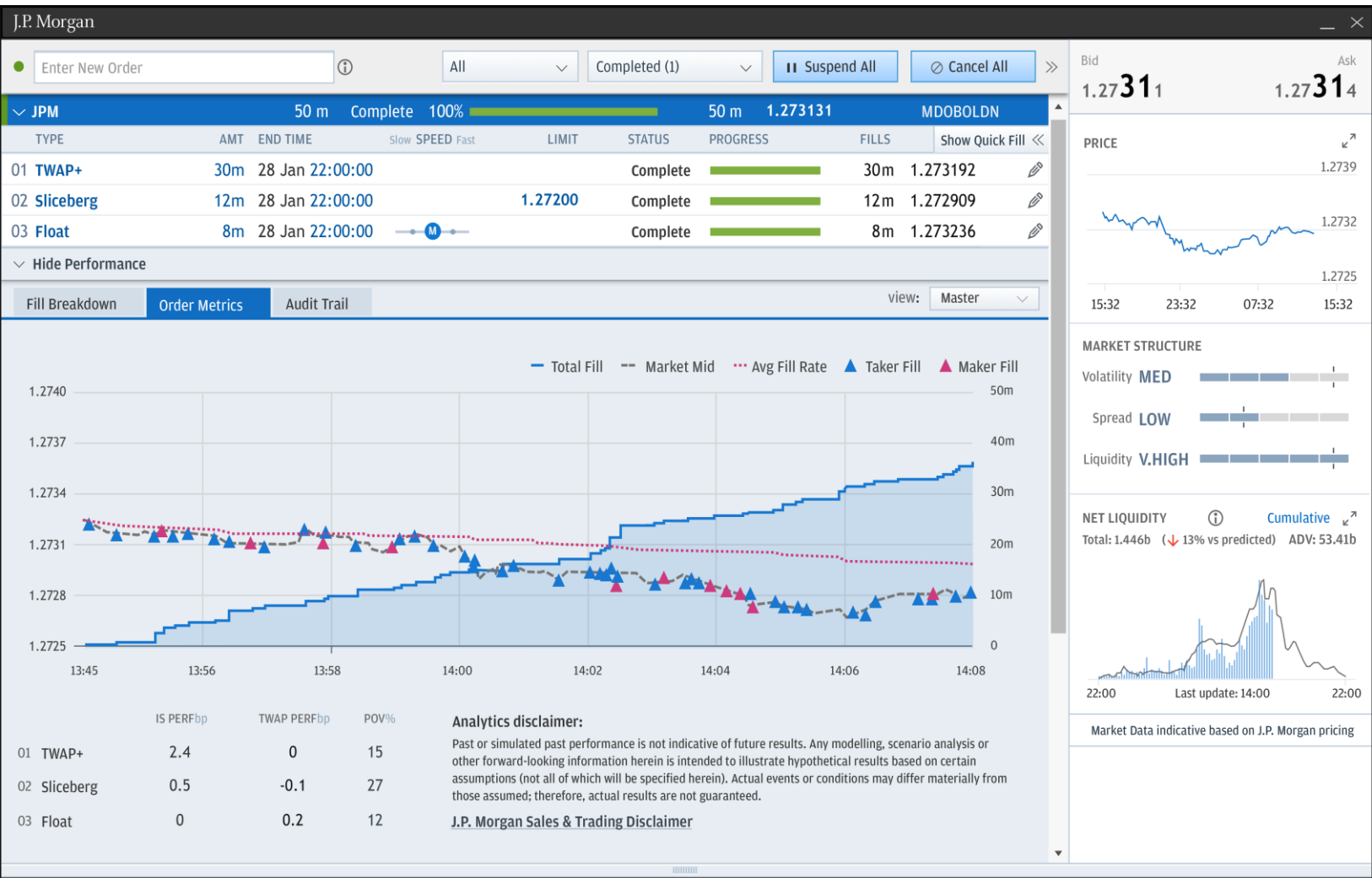
- Single entry point providing **seamless access to JPM's execution algos** and analytics to help reduce costs

Tailored Execution

- Ability to customize your order structure

Wider availability

- Integrated with JPM proprietary and third party distribution platforms



Rich analytics

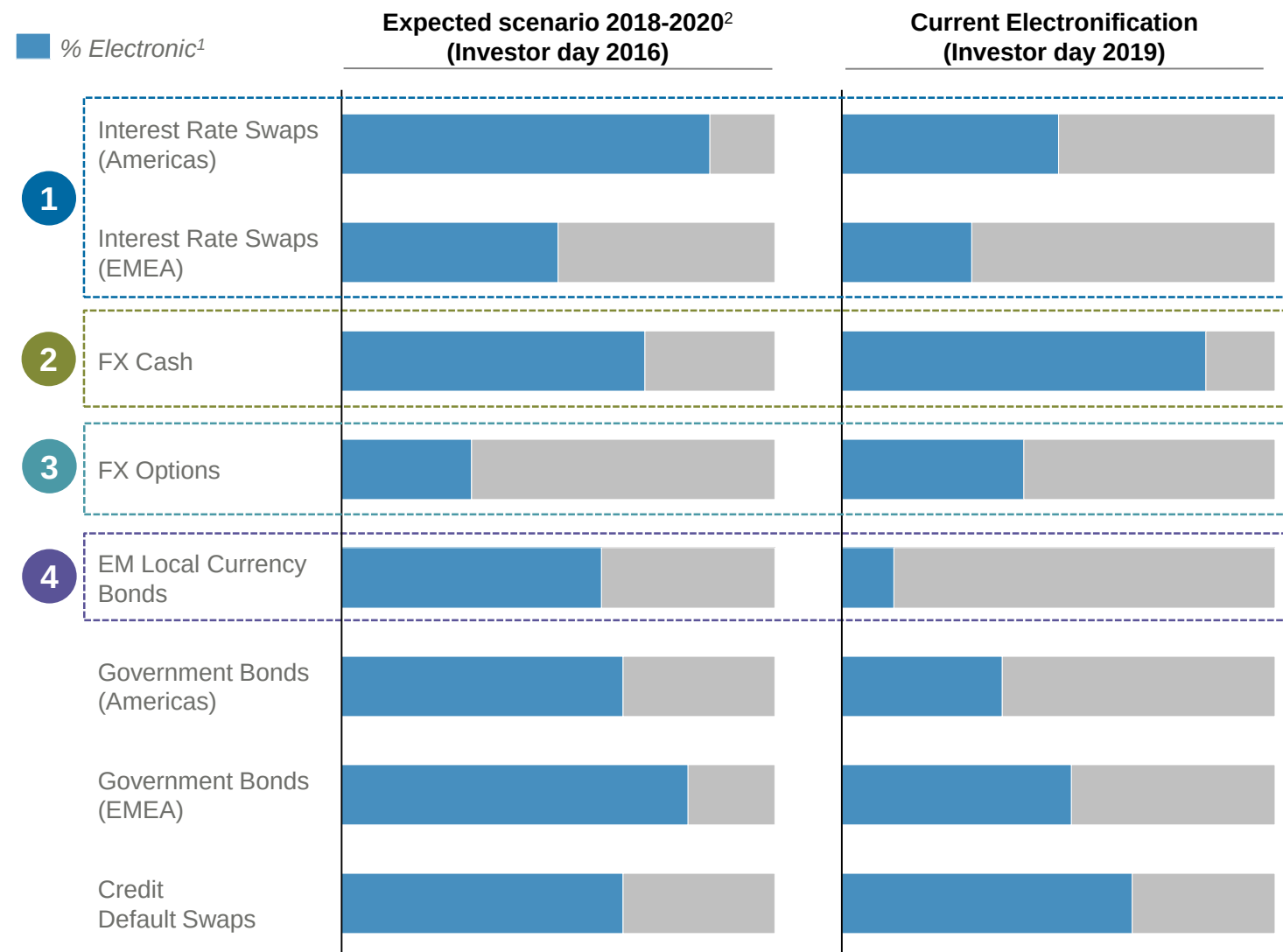
- Access to pre-trade predictions, live execution monitors and post-trade performance analytics

Real-time control

- Change speed, execution style and even your strategy while the order is live

Pace of electronification has varied across different FICC products

Electronification for select FICC asset classes



Key observations

1 Interest Rate Swaps

- Higher Electronic RFQ volumes
- Lower volumes on Central limit order book type execution

2 FX Cash

- Market fragmentation & rise of non-bank liquidity providers
- Investments in e-trading infrastructure positioned us well

3 FX Options

- Lower execution volumes on multi-dealer platforms
- Yield compression marginally offset by increased e-volumes

4 EM Local Currency Bonds

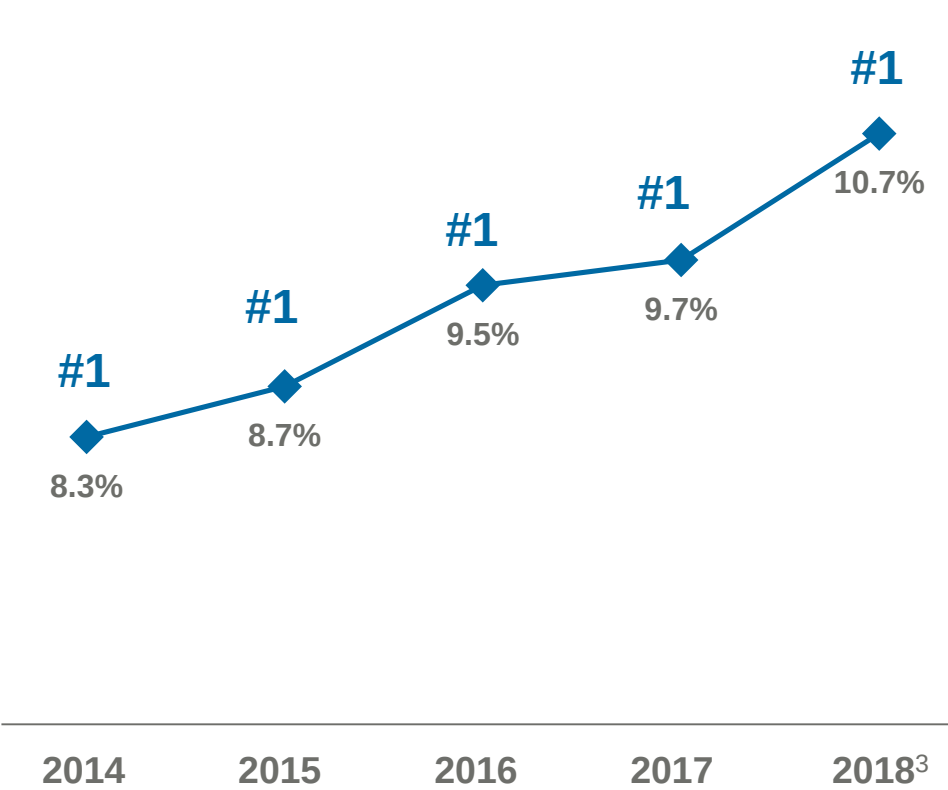
- Voice liquidity preferred for large sizes
- Not all instruments listed on multi-dealer platforms
- MiFID II deferral impacted actual electronification

Source: JPMorgan Chase internal estimates; all estimates are global averages unless a regional product is specified
Note: For footnoted information, refer to slide 37

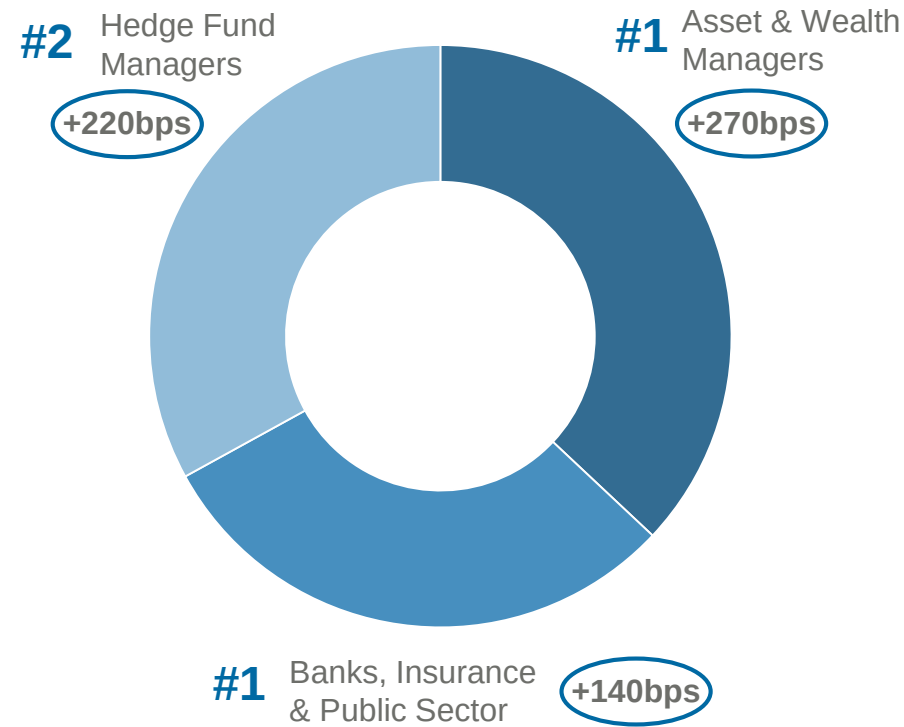
We remain highly committed to strengthening our diversified client franchise, building on top of our consistent Markets wallet growth with Institutional and Corporate clients

Institutional clients¹

◆ JPM market share with Institutional clients
JPM rank



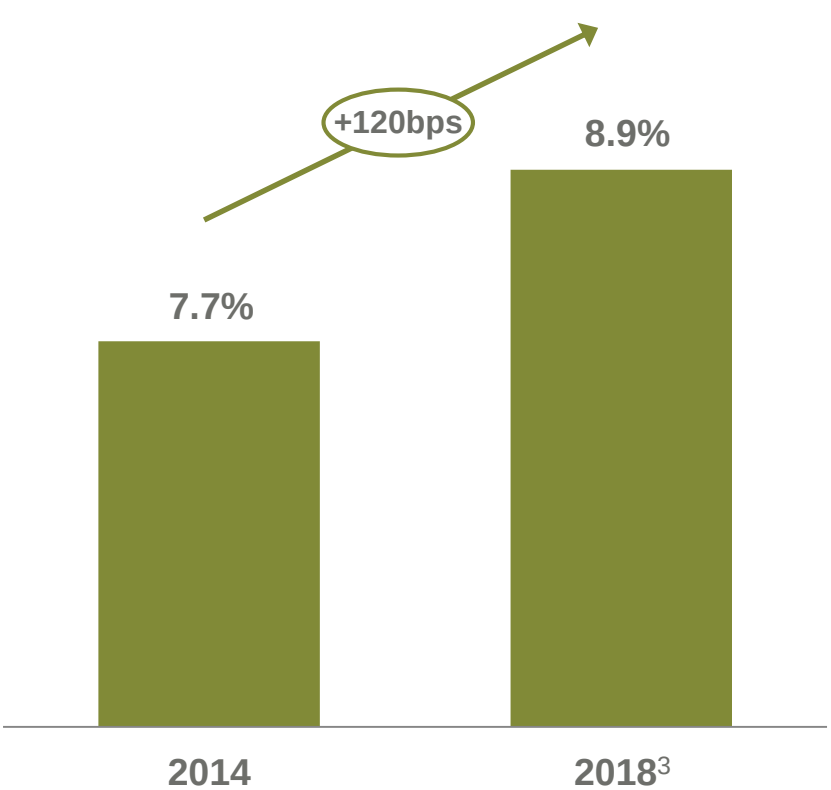
JPM Institutional clients revenue mix



○ Total wallet share growth 2014-2018

Corporate clients²

■ JPM market share with Corporate clients



➤ Total wallet share growth 2014-2018

Note: For footnoted information, refer to slide 38

Going forward, we are investing to address clients' evolving needs for capital and risk solutions



Next-gen analytics

- **Increased continuity** and **simplified workflow** between clients and us – across research, sales and trading
- Multi-asset **pre-trade analytics and data platform** for clients
- **Smart quoting** and automated risk management for trading functions
- Data **analytics and visualization** platform for sales functions



Best-in-class execution

- Providing client access to **next generation algo execution**, enhanced with pre-trade, real-time and post-trade capabilities
- **Enabling systematic market making** through Artificial Intelligence-driven execution capabilities
- **Aggregating client and market data** to enhance trade recommendations, through analytics and research



Enhanced client experience

- **Quick, efficient and secure** access, authentication, documentation and onboarding
- APIs enabling access to growing number of services, **whenever and however clients choose**
- **Customization through smart search**, while delivering curated solutions and topical content to clients

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Wholesale Payments recorded \$11B revenue and grew by 28% over the last two years



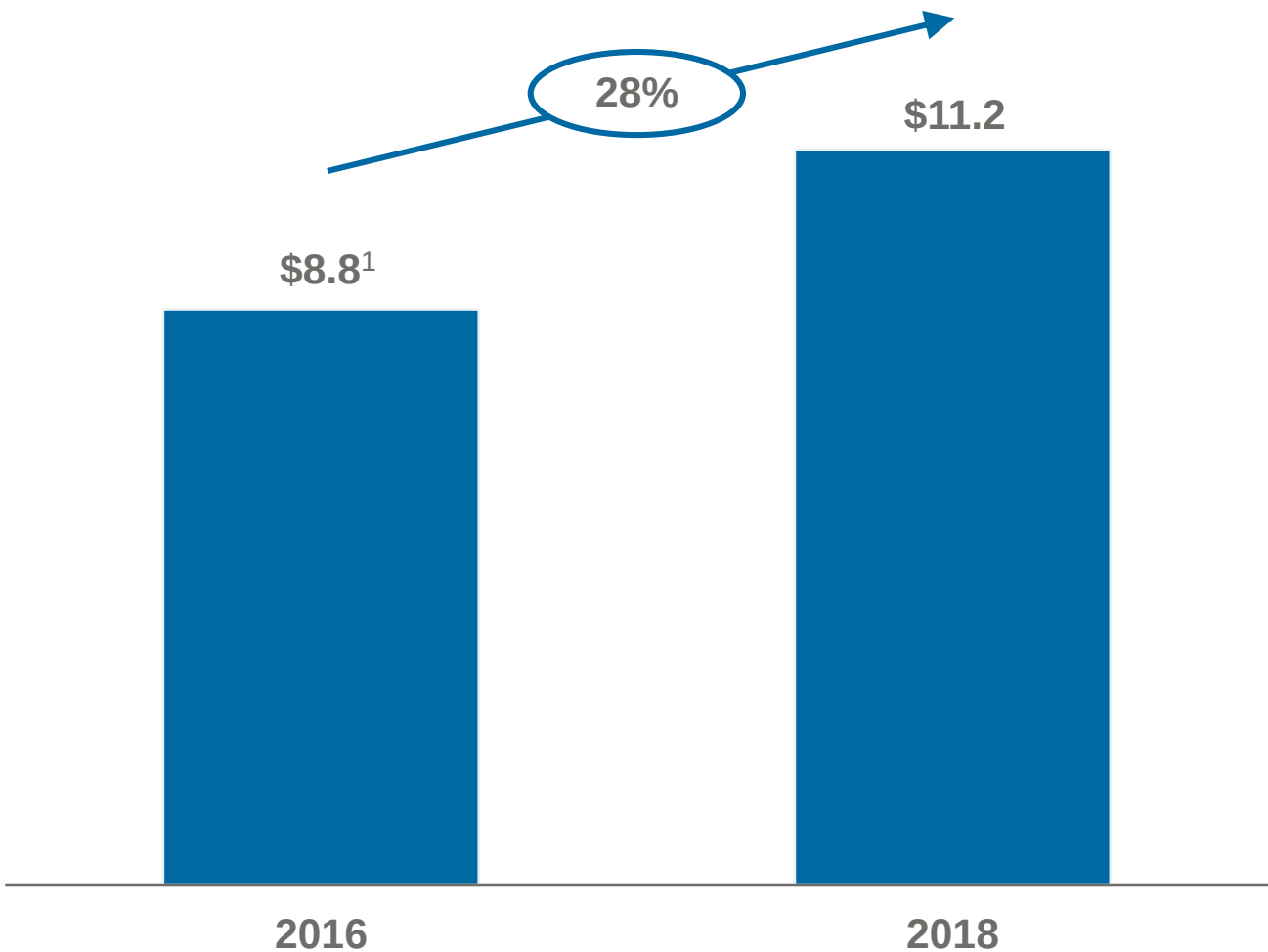
Wholesale Payments
includes following services
delivered to clients **across**
the firm

- Treasury Services
- Merchant Acquiring
- Commercial Card
- Trade Finance

Wholesale Payments revenue growth¹, \$B



Total revenue growth 2016-2018



- #1 Treasury Services bank worldwide
- #1 Merchant Acquirer in the U.S. & Europe
- Industry leading virtual and traditional card payment solutions
- \$1 trillion+ in annual merchant processing volume

**\$6 trillion daily
payments Firmwide**

¹ Merchant Acquiring revenue in 2016 excludes a one time gain from sale of stake in Visa Europe

We bring the entire suite of Wholesale Payments products across our clients of all sizes and complexities



Corporates



Multinational Corporations



Middle Market Companies



Small Businesses

Financial Institutions



Banks & Broker-Dealers



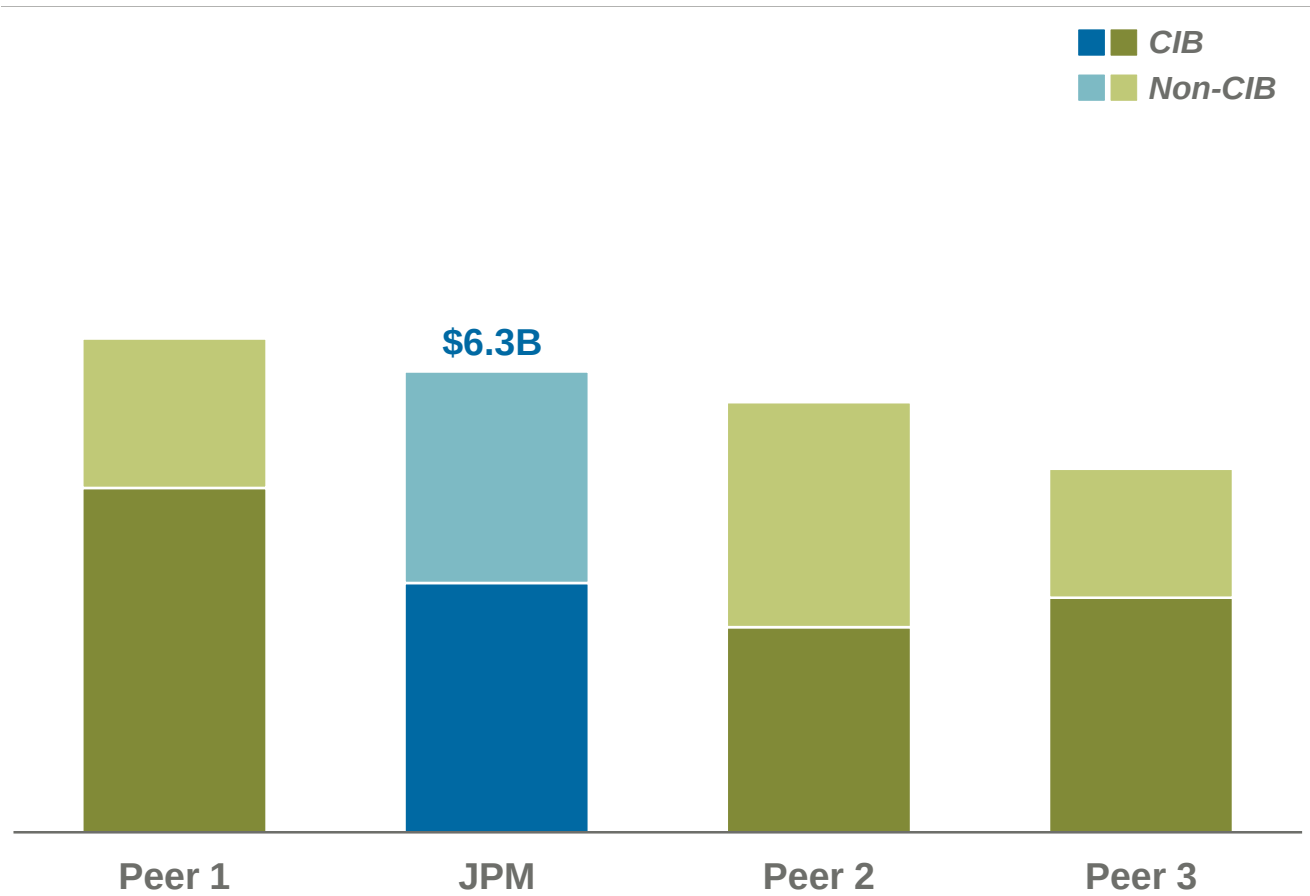
Non-Bank Financial Institutions



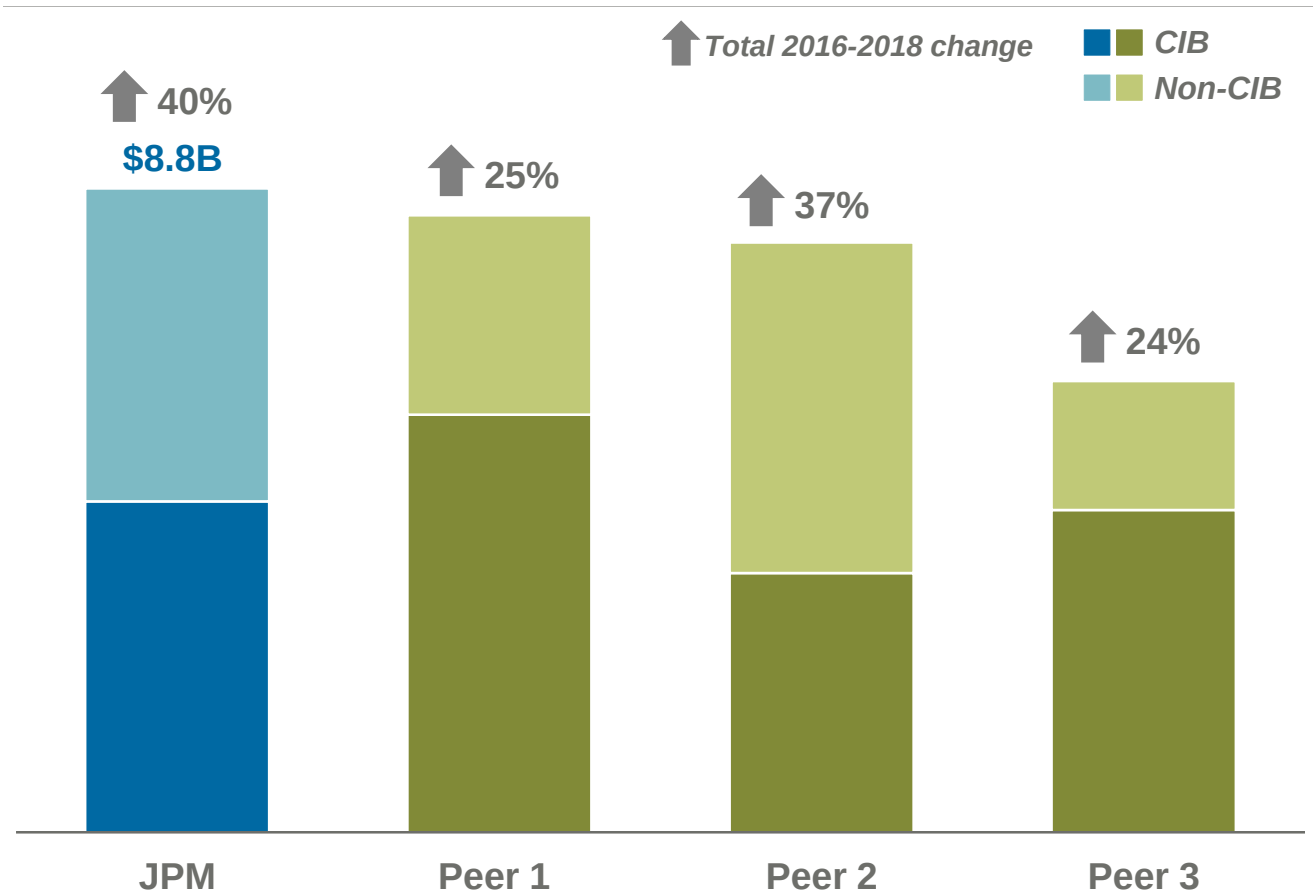
Public Sector

Our strong performance in Firmwide Treasury Services over the course of the last two years has made us a market leader

FY2016 Competitor Revenue Benchmark¹



FY2018 Competitor Revenue Benchmark¹



Ranked #1 at the Firmwide level due to faster growth than our key competitors

Note: For footnoted information, refer to slide 39

We are creating a unique value proposition for our clients through our integrated Wholesale Payments strategy

Our Wholesale Payments strategy...



Any product, anywhere

- Accept and collect from any method of payment, in any currency, anywhere in the globe



Flexible channel connectivity

- Enable clients to connect to us in whatever way they want, from a single global exchange to APIs



Real-time analytics & optimization

- Provide data-driven insights to our clients, to improve their operational and capital efficiency

...is supported by...

Integrated global platforms

- Offer scalable modular architecture that supports full capabilities across payments and cash management needs

Best-in-class controls

- Provide a robust security and control environment with the backing of a single, trusted counterparty

Innovation & partnership agenda

- Offer clients maximum choice and access to best of breed solutions including in-house and partner-led innovations

We continue to make progress on delivering global, scalable platforms



Key Milestones

Core Payments

GRAPHITE

GLASS
SPEED. INTELLIGENCE. FLEXIBILITY.

- **Live today in several countries**
- Featuring a number of state-of-the-art **configurable components**



Looking Ahead

- **Reduce costs** by decommissioning legacy platforms
- **Significant improvement in speed to market** for future product development

Merchant Acquiring



- **Launching new platform** with pilot merchants in July 2019
- Building capabilities and partnerships across **APAC and LATAM countries**



- Expand **rollout in APAC and LATAM – including local acquiring**
- **Integrate customer experience** across payments and merchant acquiring
- **Expand capabilities** in the U.S. small business market, leveraging WePay asset

Innovation

iin

JPM
Coin¹

- **Interbank Information Network**
 - **185+** signed letters of intent
 - **Live** with several banks
- **First U.S. bank** with a **digital coin**

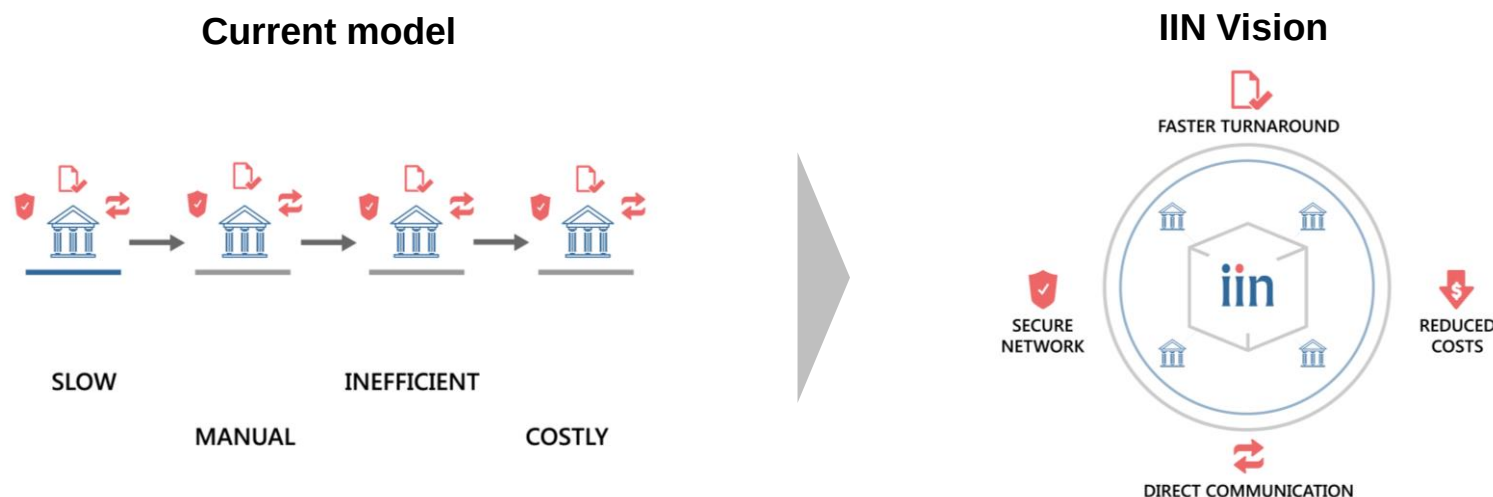


- Reach ubiquity with **200+** banks
- **Launch apps** on the IIN network
- **Enable JPM Coin¹** to other platforms and standard blockchain networks

¹ JPM Coin is a prototype. JPMorgan Chase will complete all internal procedures and satisfy all regulatory and compliance obligations, prior to any live products or services being launched utilizing JPM Coin

Interbank Information Network and JPM Coin: examples of Wholesale Payments innovation

iin Interbank Information Network Eliminating Information Inefficiencies



- Global distributed network for **real-time, interconnected flow of information**
- **185+ banks with signed LOIs** – on target to be the largest blockchain-based banking information network
- **Initial focus on building utility applications** that address immediate pain points
 - **Resolve**: streamline process for resolving inquiries related to payments (live today)
 - **Validate**: global beneficiary and account validation (in testing)
- **Longer-term vision to build a platform ecosystem** with value-added applications developed by participants targeting more complex issues: onboarding, KYC, errors, returns, etc.

JPM Coin¹ Will Enable 24/7/365 Global Value Transfer

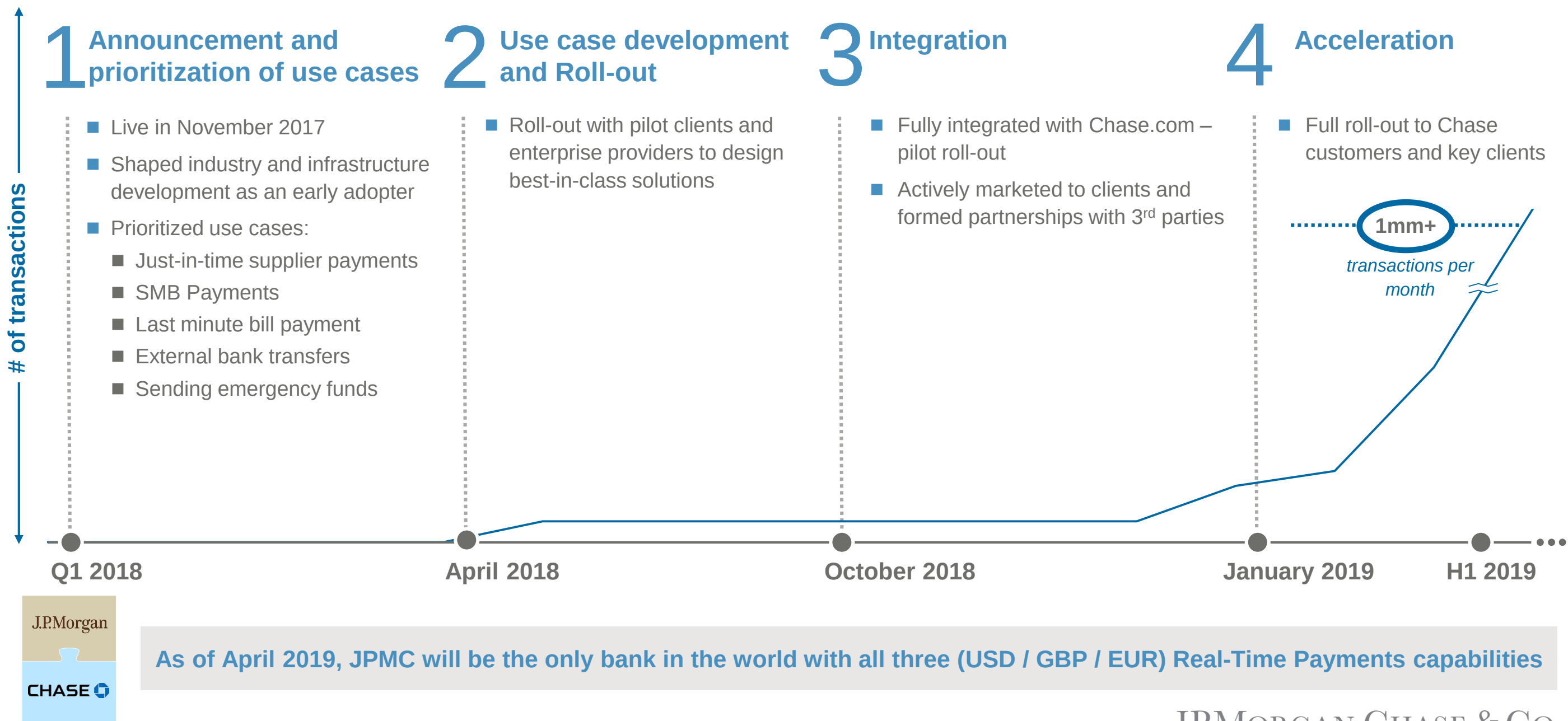
- **Digital coin designed to facilitate instantaneous payments** using distributed ledger technology
 - Will be available to JPMorgan Chase institutional clients
 - Prototype tested successfully
- JPM Coin will **facilitate payments in United States Dollars**
 - Will be extended to other major currencies in the future
 - Will be issued on Quorum Blockchain, but can be used on other blockchain platforms
- **Many potential uses** in the future for institutional clients of JPMorgan Chase:
 - Cross-border money movement 24/7/365 – outside traditional banking hours
 - Payments for asset transfers over blockchain
 - Internal liquidity optimization for large, complex corporate clients

¹ JPM Coin is a prototype. JPMorgan Chase will complete all internal procedures and satisfy all regulatory and compliance obligations, prior to any live products or services being launched utilizing JPM Coin

Product innovation delivered over the past 12 months

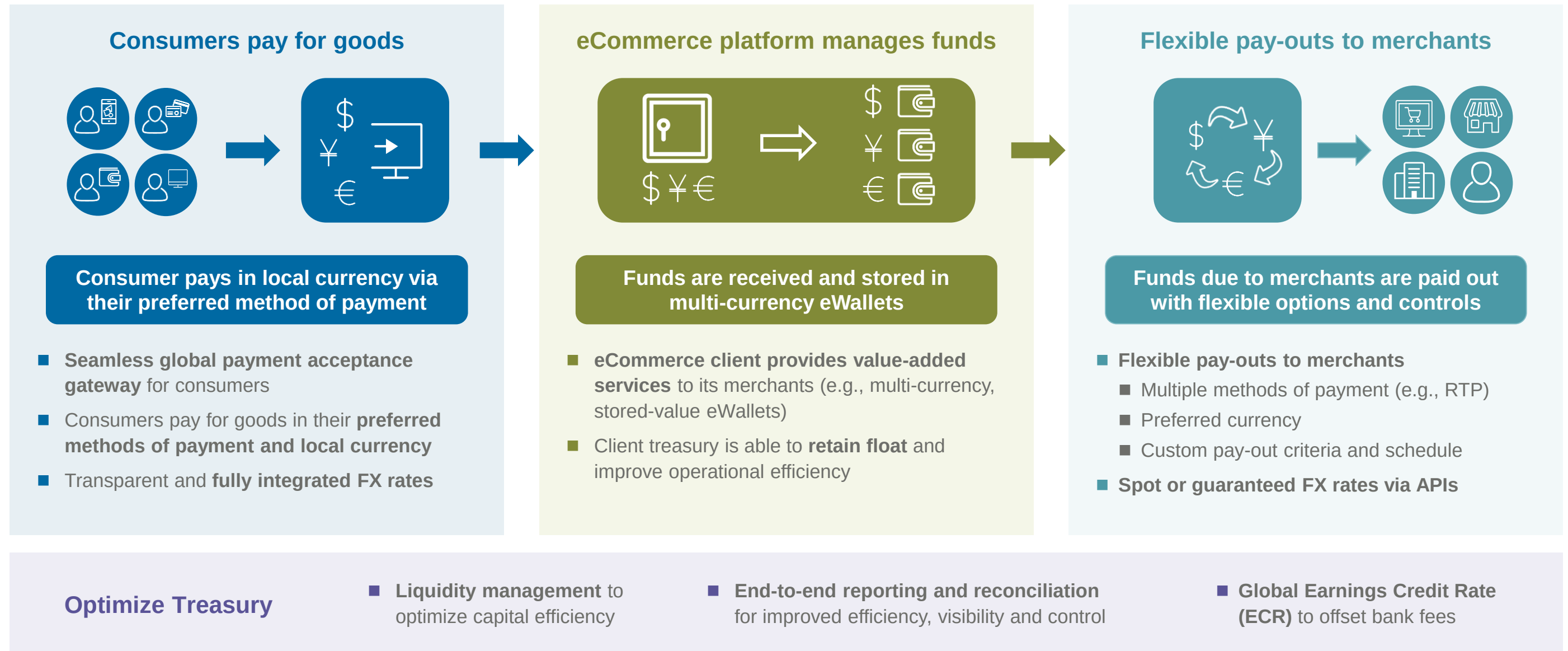
	 Key Milestones	 Looking Ahead
 Global MassPay	■ 100+ countries ■ ~50 currencies	■ 120+ countries ■ 70+ currencies
 Virtual Account Management	■ Live in all regions by March 2019 ■ ~40 currencies	■ Complete roll-out across all major markets
 APIs & Open Banking	■ Industry-leading API environment	■ Launch new front-end terminals for clients ■ Expand partnerships with FinTechs, ERP / TMS providers ■ Become a leader in Open Banking in EMEA
 Digitization / Automation	■ Account opening in < 70 seconds ■ 98%+ STP rate	■ Increase automation across client lifecycle ■ Expand Machine Learning-based solutions
 Real-Time Payments	■ First bank to be live in USD, EUR and GBP ■ Clients across CIB, CB and Chase.com	■ Expand leadership in RTP globally ■ Explore new real time cross-border opportunities

U.S. Real-Time Payments: product innovation at scale



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eCommerce platform: Example of our end-to-end Wholesale Payments solutions and benefits



Our strategic focus is to be the leader in delivering solutions to meet all of our clients' treasury and payments needs



Middle Market and Small Businesses

- Bundled solutions for payment needs, including merchant acquiring services and core cash management
- Focus on simplicity, ease of implementation and user experience
- Integrated set of digital capabilities with multiple connectivity options



Large Multinational Corporates

- Consultative approach to design bespoke solutions, providing visibility and efficiency across liquidity and payments
- Existing GCB and GIB clients
- Opportunities in every region and industry
- \$1 billion gap to #1



FIG (Banks, NBFIs and Public Sector)

- Global clearing capabilities with leading scale and efficiency
- Deep expertise in every client segment and region
- Operational excellence and best-in-class controls
- Industry-leading innovations – e.g., Interbank Information Network (IIN) blockchain service

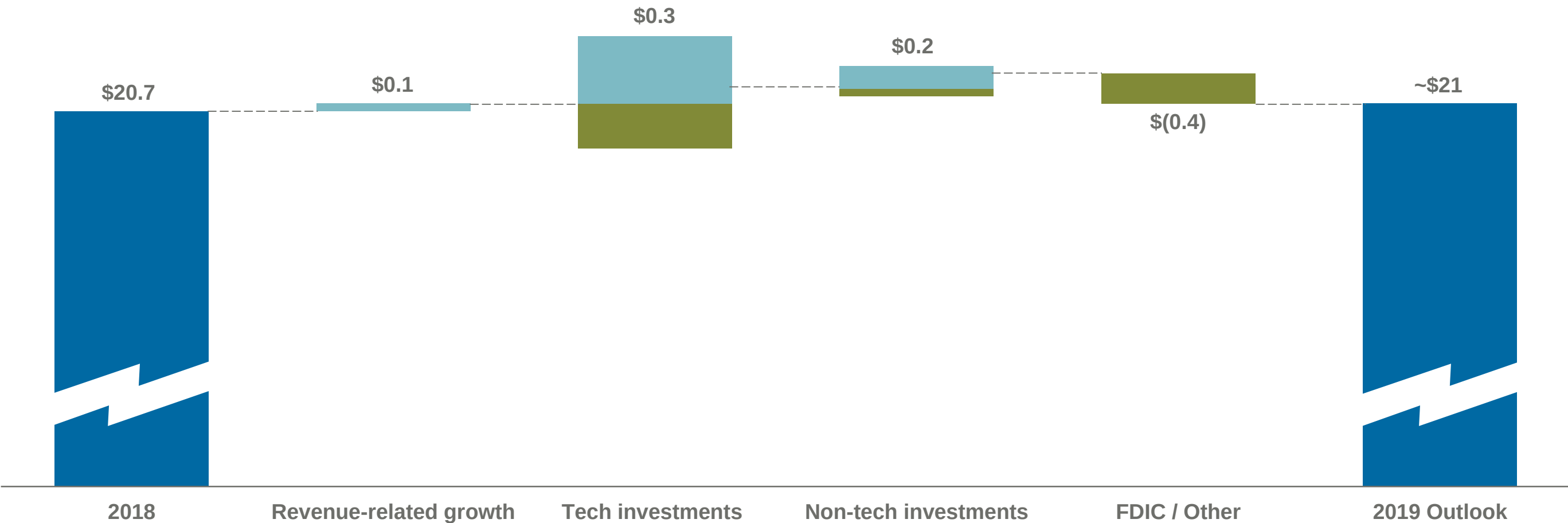
We have a complete suite of products and services to serve clients of all segments and sizes and can tailor our solutions for their individual, unique needs

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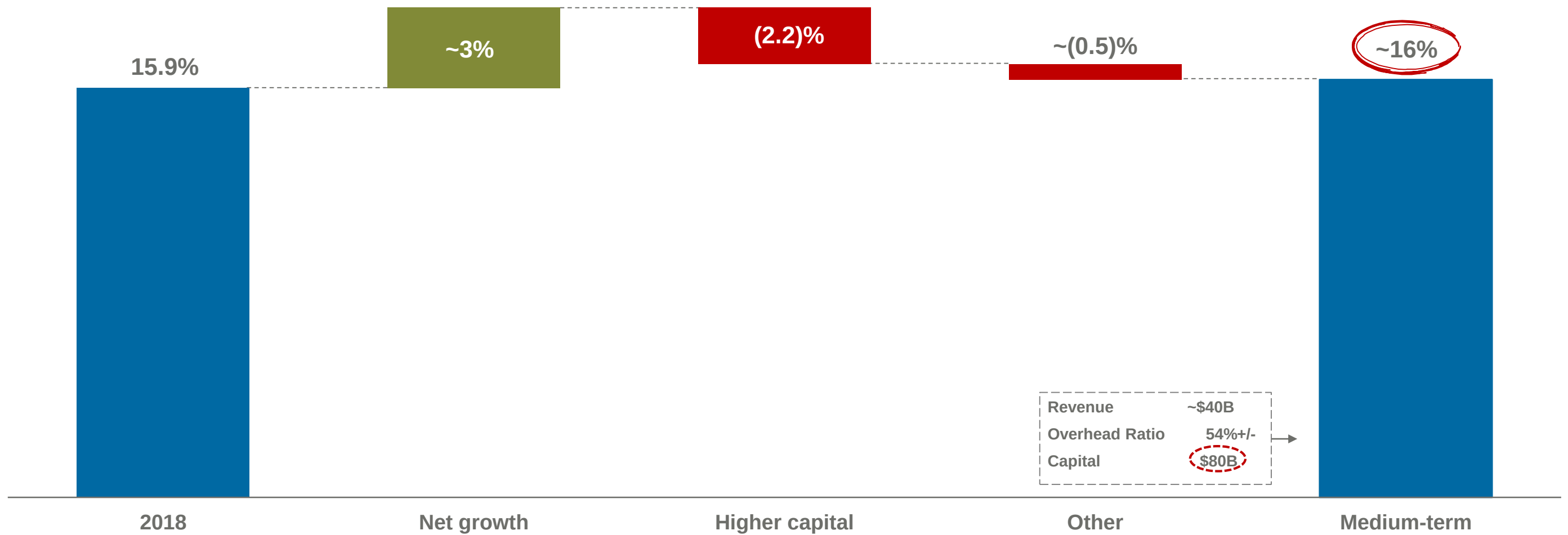
Expense walkforward (adjusted)

2018 to 2019 Outlook (\$B)¹



¹ Expense adjusted for legal expense

ROE Walk: 2018 Actuals – Medium-term target



We remain focused on maintaining day-to-day discipline, optimizing our current model and transforming for the future

Maintaining day-to-day discipline



Continuous focus on **client experience** and **ease of doing business**



Best-in-class execution and delivery against our core strategic priorities

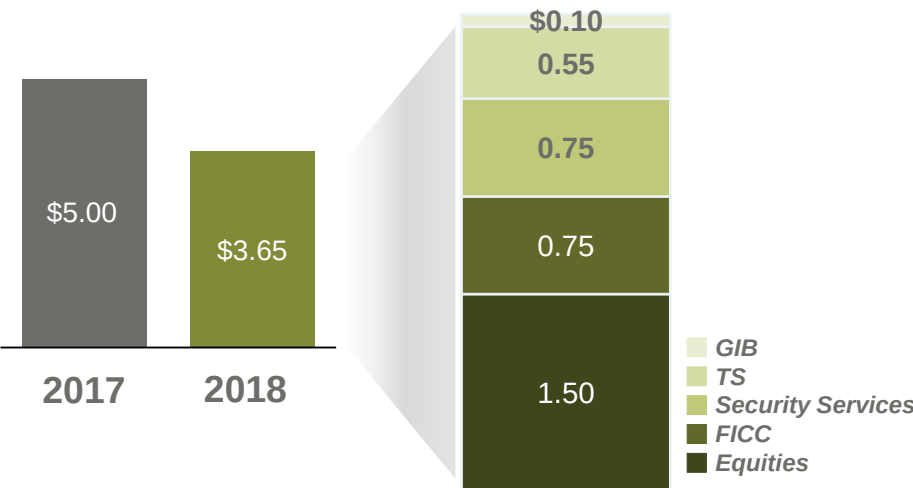


Unfaltering risk, credit, capital, liquidity and expense **discipline**

Optimizing our current model



Closing addressable gaps¹ in our wallet, \$B



Transforming for the future



Investing in **new and emerging tech** to develop a future-proof infrastructure



Reshaping our approach to data to unlock the true power of ML & AI and transform the way we do business with our clients



Develop new business opportunities and create an **unparalleled client experience**

Note: For footnoted information, refer to slide 40

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Notes on slide 1 – We delivered strong results and had a record year in 2018

Notes

1. Adjusted revenue excludes the impact of business simplification initiatives. As a result, adjusted revenue is lower by \$1.9 billion, \$353 million, \$220 million, \$86 million and \$47 million for 2014, 2015, 2016, 2017 and 2018, respectively
2. Adjusted net income excludes the impact of (1) business simplification on revenue and expense, and (2) legal expense. As a result, adjusted net income is higher by \$1.7 billion, \$1.1 billion, \$72 million, \$16 million and \$226 million for 2014, 2015, 2016, 2017 and 2018, respectively
3. CIB ROE represents adjusted net income/capital. Reported ROE was 10%, 12%, 16%, 14% and 16%, for 2014, 2015, 2016, 2017 and 2018, respectively
4. Adjusted overhead ratio represents adjusted revenue/adjusted expense

Notes on slide 4 – CIB gained market share faster than peers, strengthening our leadership across businesses

Notes

1. CIB market share analysis – Source: Coalition. Market share analysis reflects JPMorgan Chase’s share of the global industry revenue pool and is based on JPMorgan Chase’s business structure
2. Peer numbering may be different across pages
3. Ranks for Banking - Source: Dealogic as of January 1, 2019
4. Ranks for Markets, Treasury Services and Securities Services - Source: Coalition, preliminary 2018 rank analysis based on following peer-sets and is based on JPMorgan Chase’s business structure
 - Markets (BAML, BARC, BNPP, CITI, CS, DB, GS, HSBC, JPM, MS, SG and UBS)
 - Treasury Services (BAML, BNPP, CITI, DB, HSBC, JPM, SG, SCB and WFC)
 - Securities Services (BAML, BBH, BNY, CITI, CACEIS, DB, HSBC, JPM, NT, RBC, SCB, SS and SG)
5. Co-ranked #1

Notes on slide 6 – Markets business continued to increase market share across products while delivering strong returns

Notes

1. Source: Coalition, preliminary 2018 market share analysis reflects JPMorgan Chase's share of the global industry revenue pool and is based on JPMorgan Chase's business structure. FY18 analysis is based on preliminary results and peer-set BAML, BARC, BNPP, CITI, CS, DB, GS, HSBC, JPM, MS, SG and UBS
2. Analysis reflects top 4 peers within peer-set
3. Peer numbering may be different across pages

Notes on slide 11 – Our Equities franchise has steadily gained market share across our key products, benefiting from multi-year investments in execution capabilities

Notes

1. Source: Coalition 2018 preliminary Competitor Analytics. Equities Market Share reflects share of the global industry revenue pool. Market Share & rank analysis based on JPMorgan Chase's business structure. FY18 analysis is based on preliminary results and peer-set BAML, BARC, BNPP, CITI, CS, DB, GS, HSBC, JPM, MS, SG and UBS
2. Analysis reflects top 4 peers within peer-set
3. Peer numbering may be different across pages

Notes on slide 17 – Pace of electronification has varied across different FICC products

Notes

1. % Electronic is based on notional volume executed through Single Dealer Venues, Multi Dealer Venues / Non-Central Limit Order Books and All-to-all / Central Limit Order Books
2. Source: JPMorgan Chase's Investor Day 2016 on February 23, 2016

Notes on slide 18 – We remain highly committed to strengthening our diversified client franchise, building on top of our consistent Markets wallet growth with Institutional and Corporate clients

Notes

1. Source: Coalition Institutional Wallet Analytics – based on the leading 1,300 Institutional Clients across Global Markets products only
2. Source: Coalition Corporate Wallet Analytics – based on the leading 2,000 Corporate Clients across Global Markets products only
3. FY18 share is based on 3Q18 for Institutional and 1H18 for Corporates

Notes on slide 22 – Our strong performance in Firmwide Treasury Services over the course of the last two years has made us a market leader

Notes

1. Source: Coalition, preliminary FY18 competitor analysis. Analysis reflects TS revenues (excluding Commercial Cards) across CIB and non-CIB and is based on top 3 peers within peer-set: BAML, BNPP, CITI, DB, HSBC, JPM, SG, SCB and WFC

Notes on slide 32 – We remain focused on maintaining day-to-day discipline, optimizing our current model and transforming for the future

Notes

1. Source: Coalition, preliminary FY18 Competitor Analytics. Gap analysis reflects addressable gap to the product leader across multiple asset-classes by region based on Coalition's preliminary FY18 Competitor Analytics and reflects JPMorgan Chase's business structure. Addressable Gap represents gap that JPMorgan Chase is able to address with relatively little change in business model or investment