

28 May 2018

FinTech evolution and market observations

Will Fintech revolutionarily change Japanese banks in the next ten years?

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QUOINE



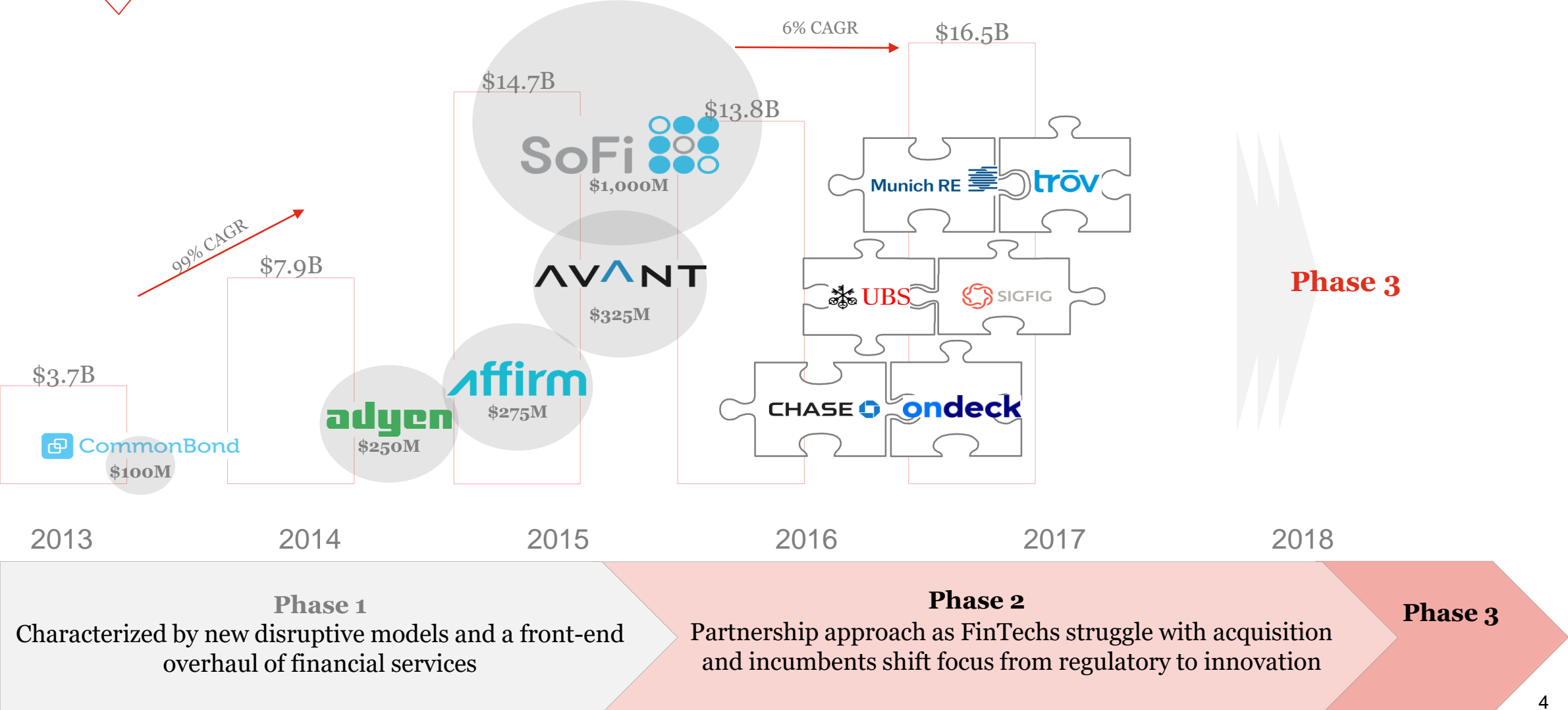
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01

Current state of the global market

FinTech innovation and evolution: a third phase is underway



Source: PwC analysis

Market observations as the industry enters Phase 3



Many early disruptive concepts were forced to revert into the traditional financial ecosystem

and could ultimately contribute to growth for traditional players:

- Cryptocurrencies
- Marketplace lending (MPLs):
- P2P and real time payments



FinTech has changed how products are developed, distributed, and consumed

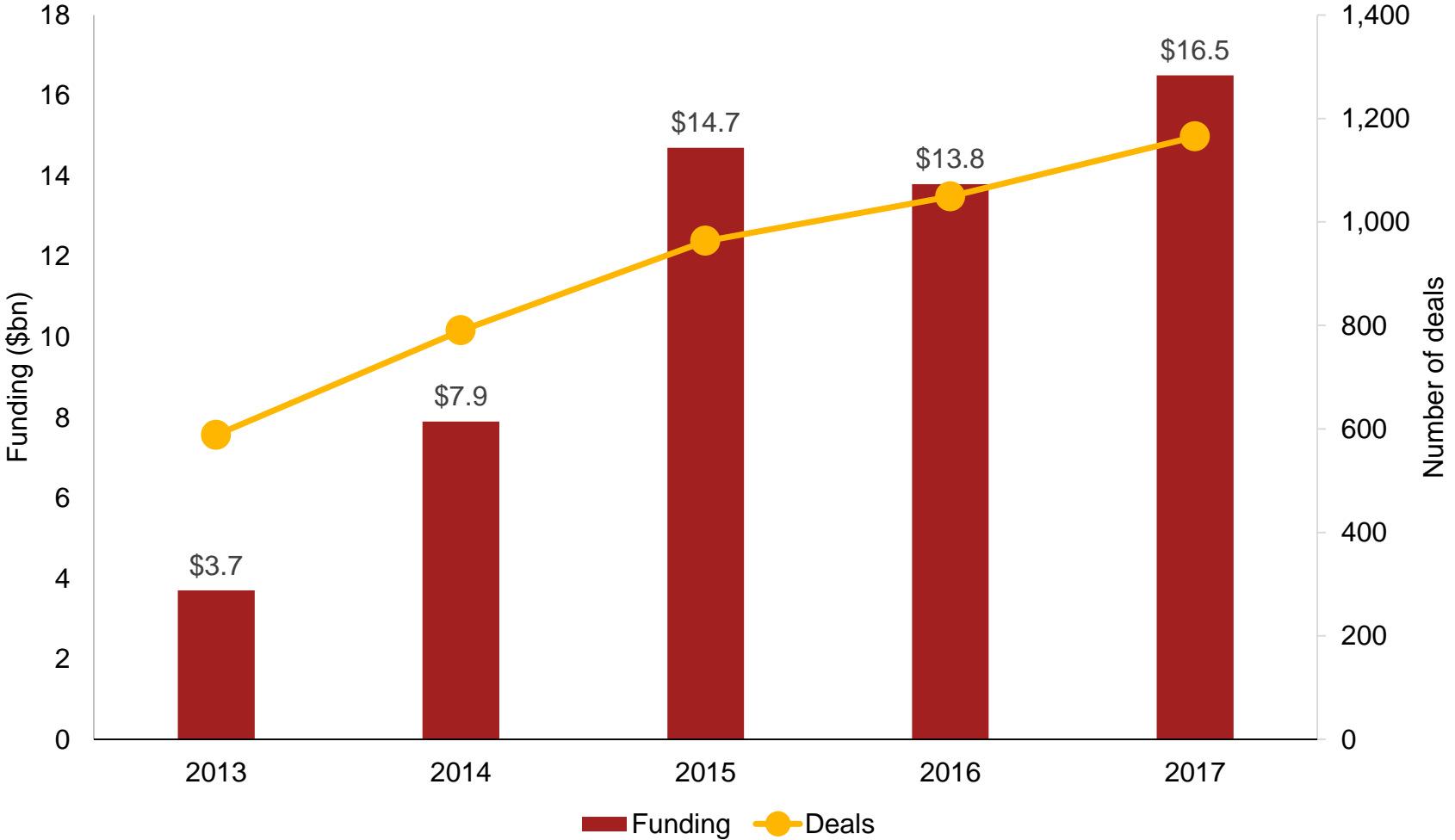
- despite a lack of market share. This may ultimately preface the entrance of BigTech into financial services
- BigTech brings well-known brands, a large and loyal customer base, and scale—the exact areas where FinTech struggles



Hybrid models are here for the foreseeable future

- Use of AI in banks will help, not replace, humans
- Physical bank branches are acting as an on-ramp to digital products. Automation is moving beyond rules engines to enhance employee work

Global FinTech funding has stabilized and is on pace for modest growth



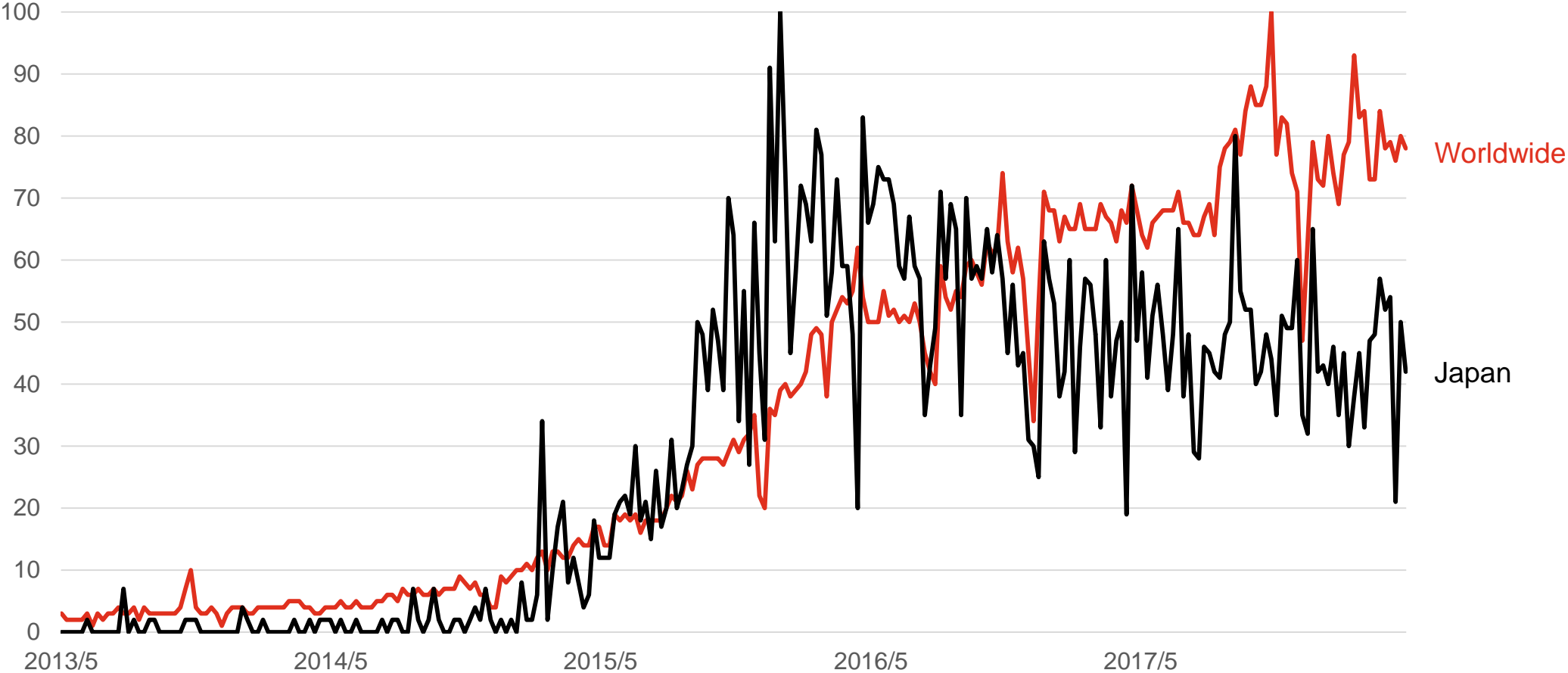
2018

is on pace for **\$21.6B** in funding and 1,292 deals – both of which would be record levels of funding

Source: PwC analysis:

Fintech has morphed?

Number of “Fintech” search since 2013



Note: Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term

Source: Google Trends:

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Regional perspectives

North America

there has been a blurring of the lines between Fintech and incumbent.

- Based on private market valuations, **the US has 16 of the 26 global FinTech companies valued at \$1B or more.**
- As FinTech matures (Phase 2-plus), companies have **shifted focus from disruption to partnerships** to supplement and augment their traditional offerings
- Venture-backed funding has shifted from lead generation and alternative models (e.g., marketplace lending) to pure technology-based companies such as artificial intelligence
- Financial services incumbents are **starting to re-bundle individual products to form a full stack or create a digital-based national bank.**
- There has been **a small uptick in new digital-only brands developed by incumbents.** These are national or out-of-footprint offerings expand the market either to a new customer demographic or geographic region



Europe

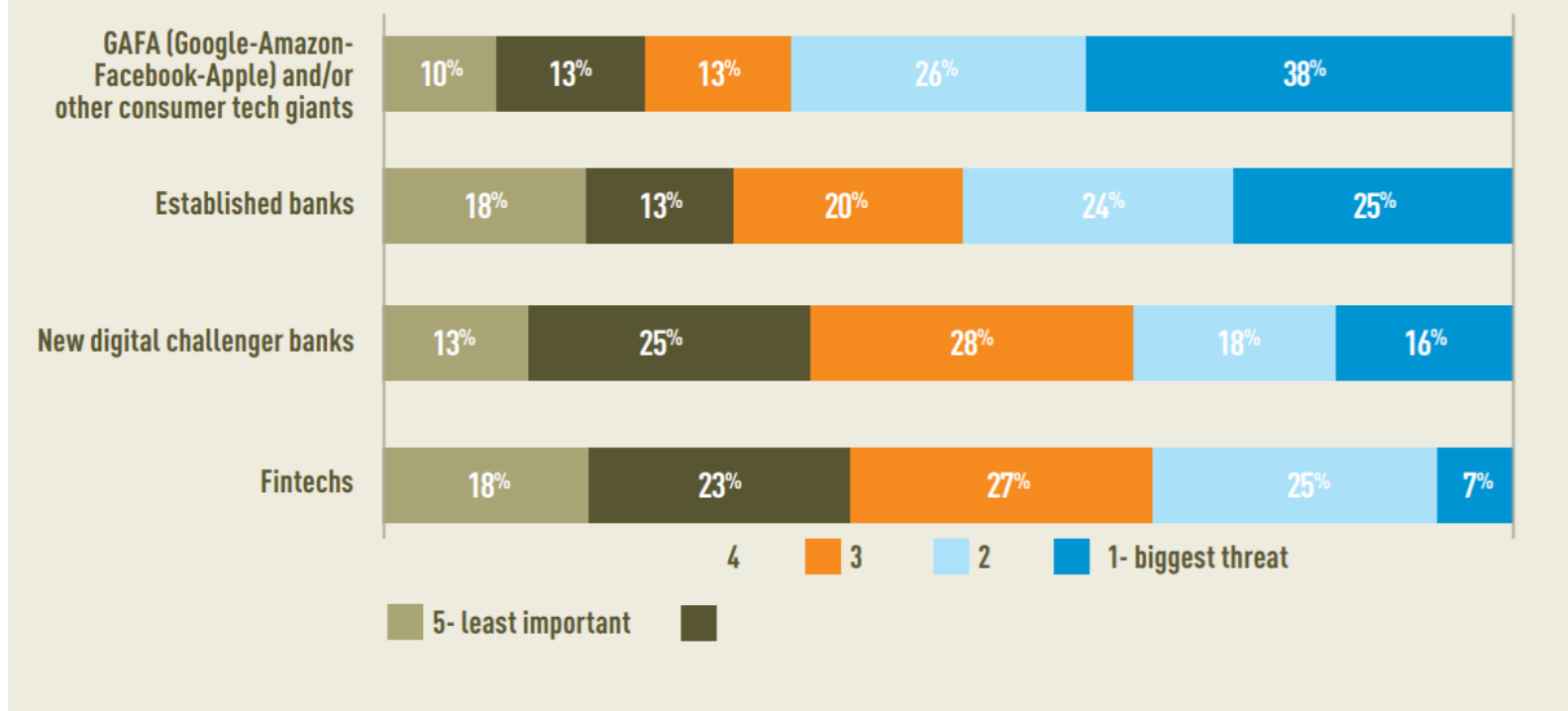
a more assertive regulatory overlay has spurred a different competitive environment.

- **Regulations** such as PSD2, GDPR, and the Open Banking mandate in the UK create requirements that provide consumers more seamless choice and lower the barriers for start-ups
 - For the payments ecosystem, PSD2 should help to simplify acceptance of cross-border payments and improve access to consumer data. These elements could **further entrench online payment channel leaders**, such as Stripe, Adyen, iZettle, and Worldpay, and create opportunities for them to expand into a broader set of financial services.
- This different competitive landscape has been a reason **venture funding continues at larger transaction sizes**. Challenger banks Atom Bank and N26 raised \$160 million and \$207 million, respectively, in 1Q18
- Despite the levels of user growth at bank alternatives, **there has not yet been a meaningful shift away incumbent banking services**—suggesting consumer growth is based on secondary and not primary accounts.



Europe - banks' biggest threat identified

BUSINESS THREAT POST-PSD2



36% respondents pitted GAFAs as the biggest threat

“not from new digital banks or fintechs, but from the consumer tech giants”

Asia Pacific

FinTech has continued to be dominated by the incumbents and associated firms.

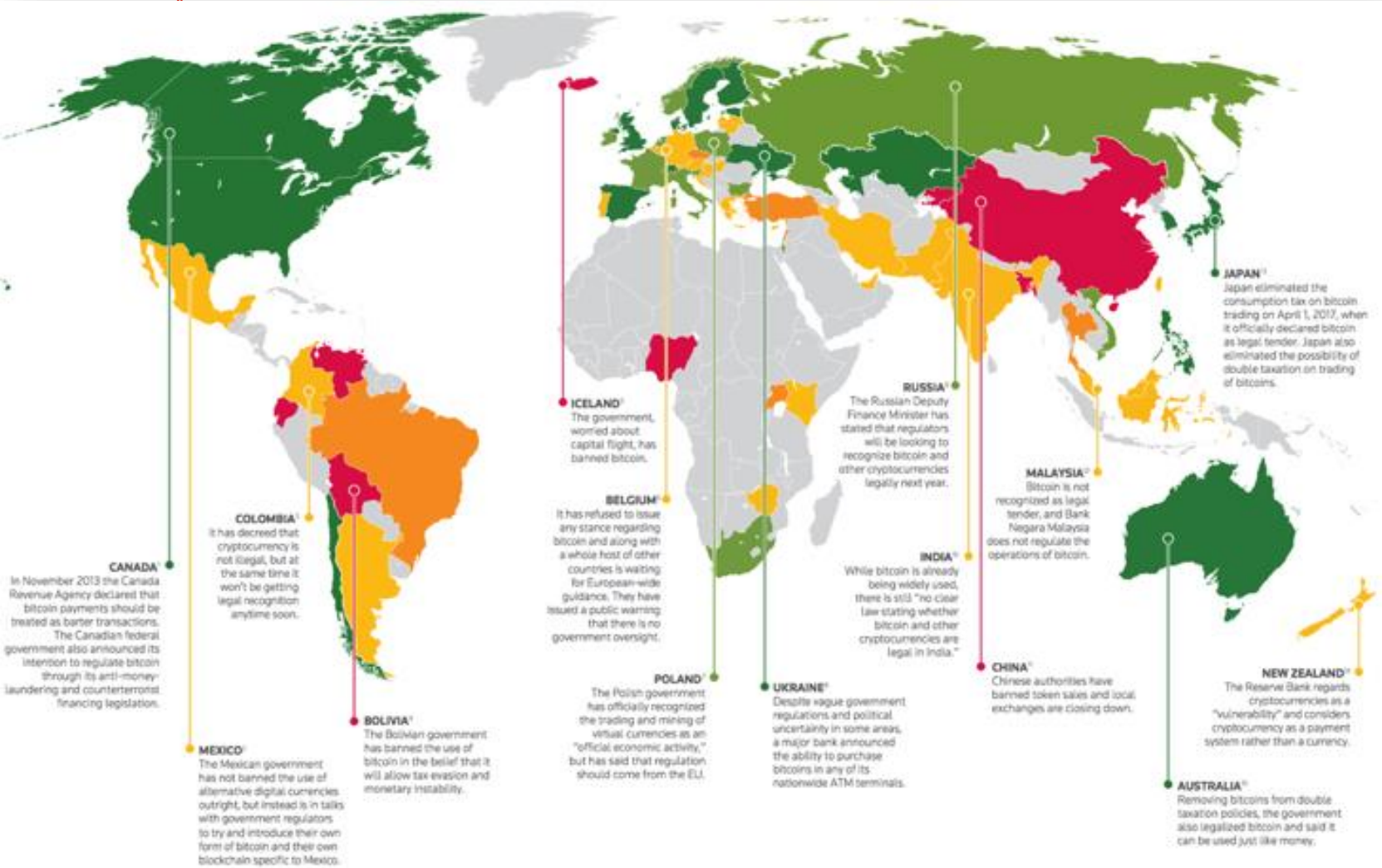
- The mostly digitally native population has seen **innovation come from the incumbent tech players** and has likely set the global standard for payments and financial transactions
- The difference in lack of physical infrastructure and consumer comfort with mobile and online transactions has driven international FS incumbents to partner to access the digital distribution channels that have been established
- **Many large FinTechs are still the results of spin outs from FS incumbents**, most recently evidenced by OneConnect, a financial account manager, a platform from Ping An Tech, which raised \$650 million in their Series A in Q1.
- Though **dominated by Chinese investment** over the past few years, **India has seen an uptick in activity**, particularly in the alternative lending space



03

Cryptocurrencies

Regulatory world of Cryptocurrencies



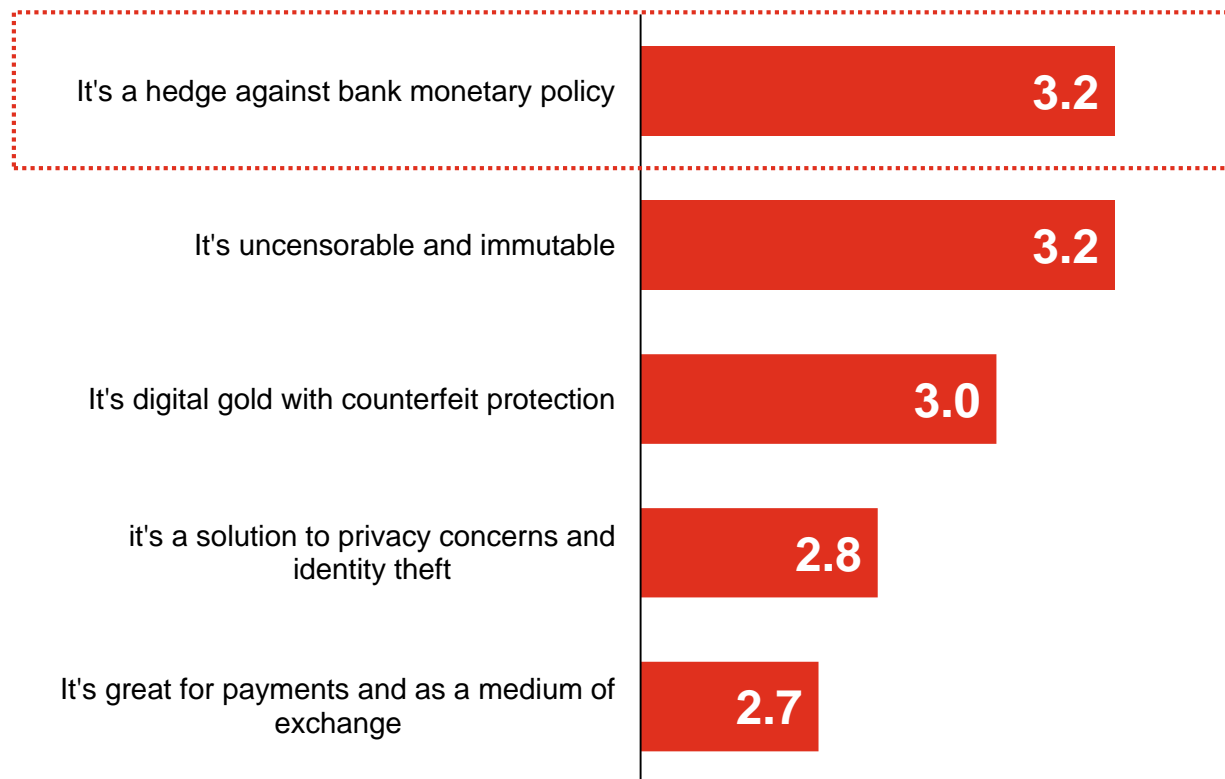
- Global Advocates
- Developing
- Fence-Sitters
- Hostile
- Banned

Source: : Cambridge University, 2017 Global Benchmarking Study (based on 232 MW survey of miners)

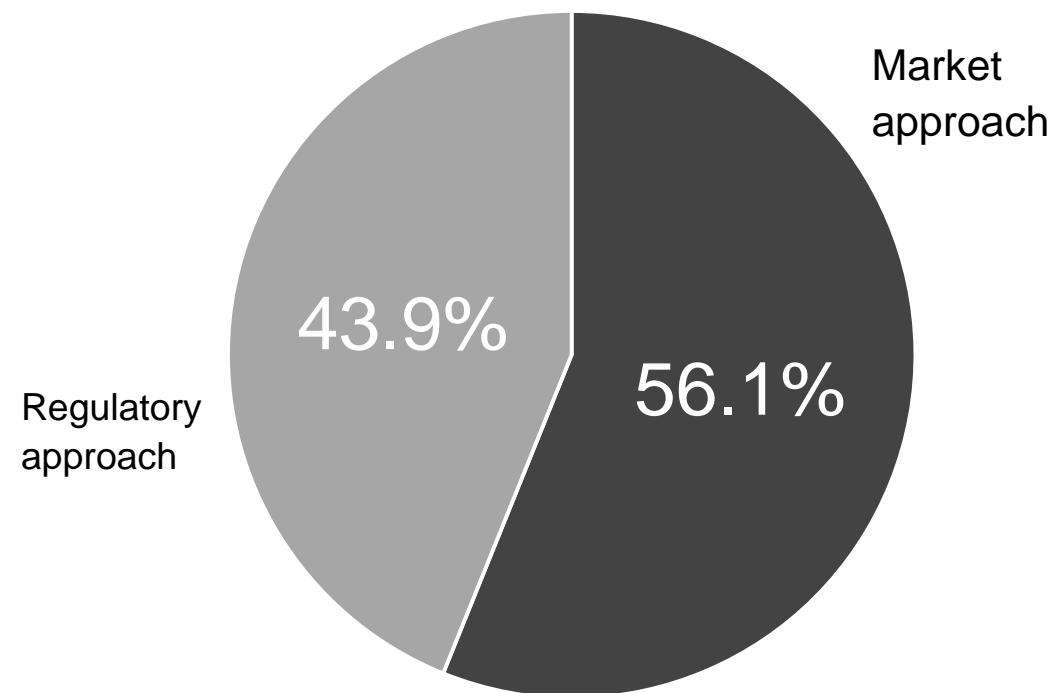
Will regulations change cryptocurrency markets?

Most positive aspect of Bitcoin is...

Q: How would you rank the following positive aspects of bitcoin today?



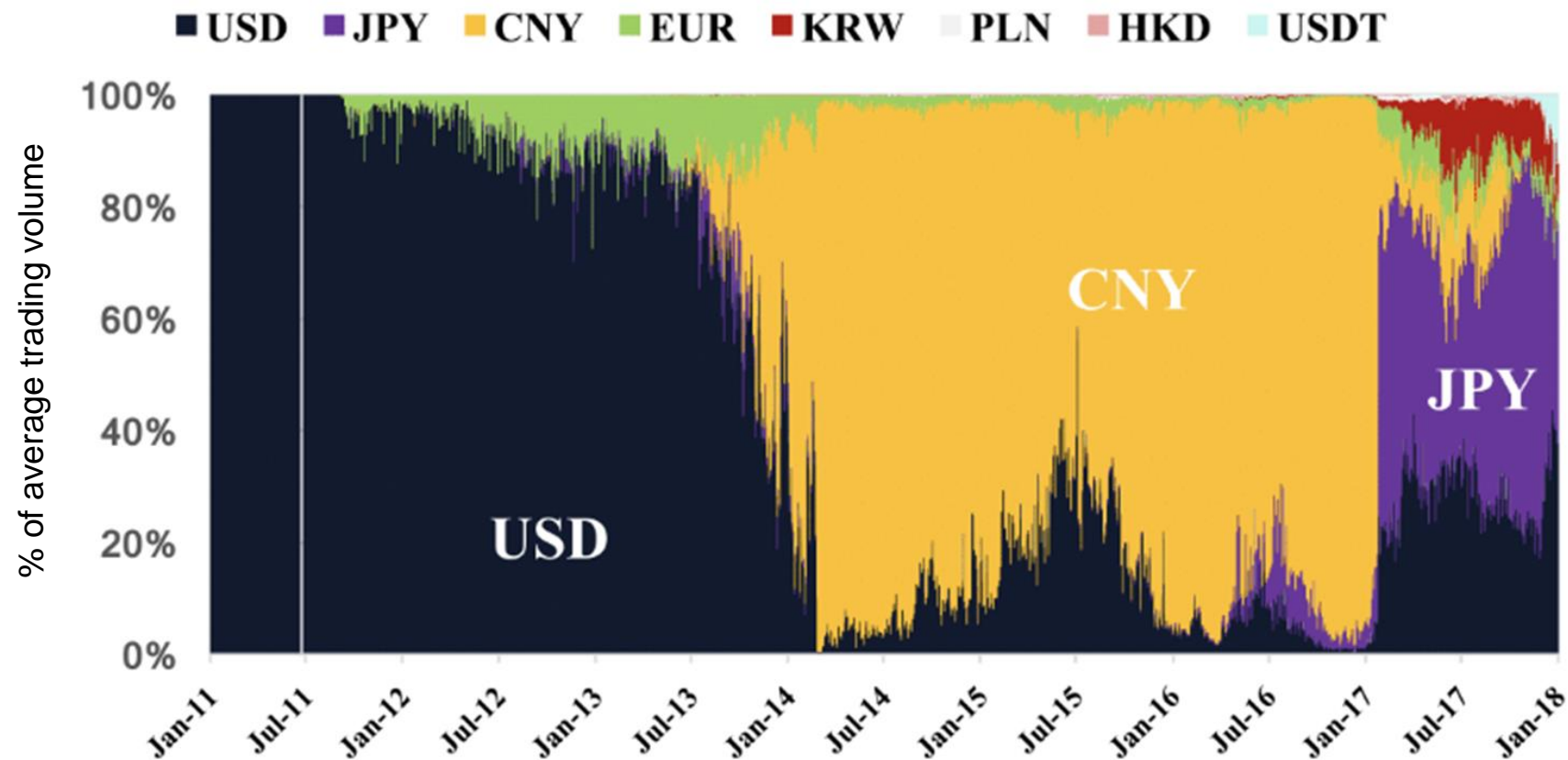
Market Approach over Government Regulation



Q: Which will have a greater effect on the quality of tokens or ICO projects, a sophisticated buy-side of professional crypto-hedge, or the regulatory approach?

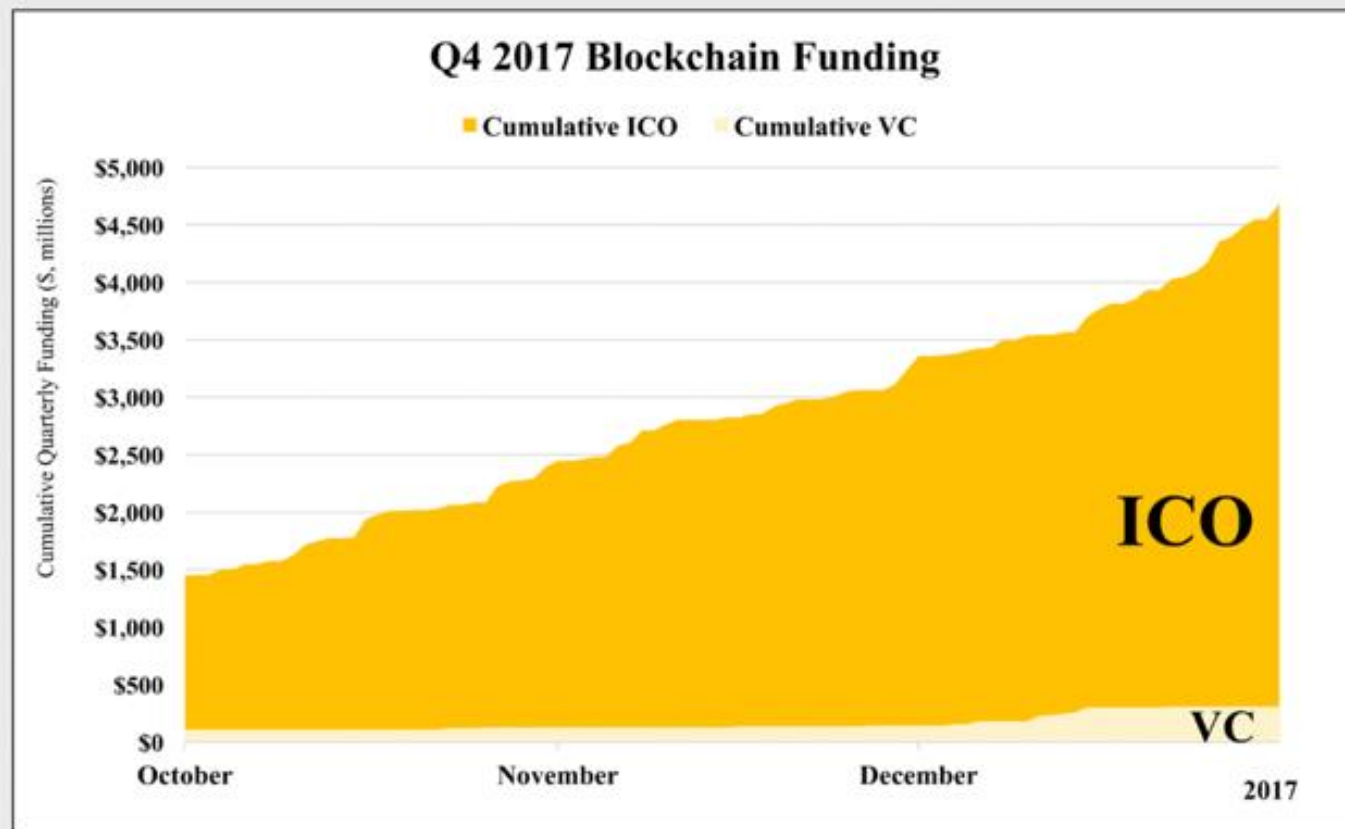
Market activities and regulatory environments as a gravitational force

Global Daily Bitcoin Exchange Trading Volume



ICOs have exceeded Venture Capitals by 16x

ICO funding raised \$3.2bn in 2017 Q4



ICO
\$3,231mn

VC
\$200mn

Top ICO Deals:
Sirin Labs - \$157.9mn
Polkadot - \$144.6mn
Qash - \$107.3mn
COMSA - \$95.4mn

Top VC Deals:
BitGo - \$42.5mn
BitPay - \$30mn
OKCoin - \$27.2mn
Abra - \$16mn

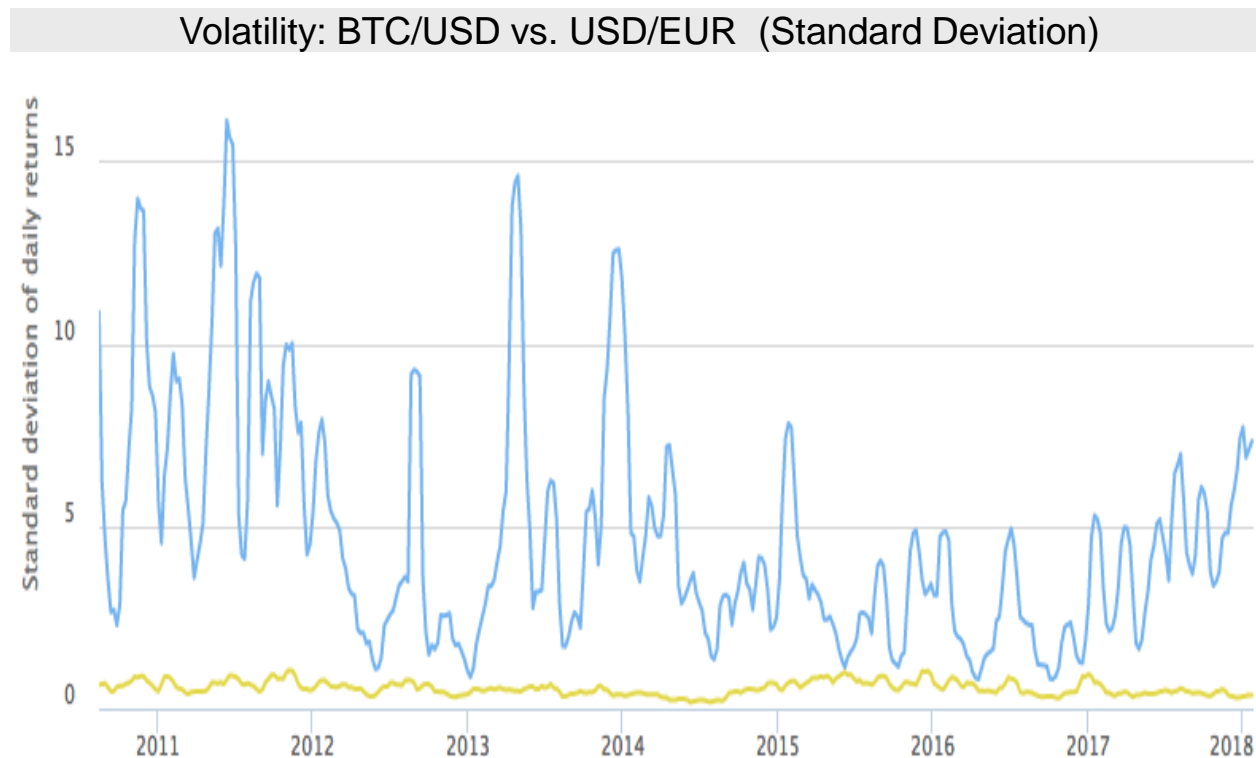
Q2
ICO \$797mn
VC \$235mn

Q3
ICO \$1,316mn
VC \$156mn

Need of Stablecoins?

Price stability is necessary for cryptocurrency becoming a medium of exchange.

- Price volatility is the primary encumbrance to mainstream adoption of cryptocurrencies
 - Bitcoin has over 100% annualized volatility against USD, and single day 30% drops are common
- The “volatility problem” manifests itself in three major areas:
 - Stable trading pair
 - Currency for the token ecosystem
 - Stable store of value



Rise of Stablecoins

Polarizing solution to disadvantages of fiat and crypto currencies?

	Fiat	BTC	Stablecoins
Speed	1 – 2 days to settle cash-account trades Not 24/7	Network Dependent (minutes to days)	✓
Convenience	KYC/AML verification for every on-ramp exchange	✓	✓
Transaction Risk	Trust in sovereign and settling bank	Exposure to Price Volatility, Esp. with Large Trades	✓

Types of Stablecoins

There are three types of Stablecoins: : IOUs, Collateralized and Algorithmic

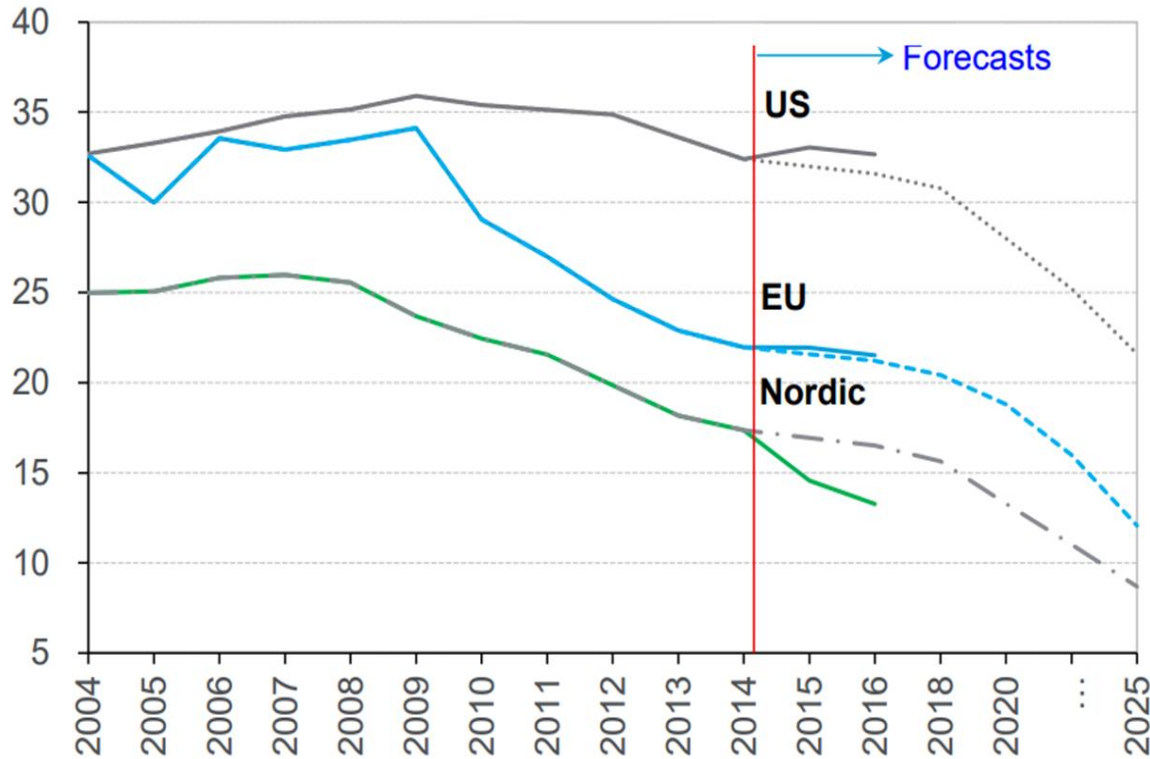
	IOUs		Collateral-ized	Algorithmic		
	Tether	Truecoin	Maker	Basecoin	Carbon	Fragments
Stage	live	live	live	Pre-sales	Seed round	Pre-sale
Market cap	\$2.26B	n/a	\$10M	n/a	n/a	n/a
Trading volume	\$2.1B	n/a	\$309K	n/a	n/a	n/a
Investors	Brock Pierce, Bitfinex	Founders Fund seed, FJ Labs, StartX, BlockTower	a16z, Polychain, 1confirmation	a16z, BCV, Lightspeed, Duquesne, Polychain, BlockTower, MetaStable, Pentera, DCG, 1confirmation	GC, [LHV], [Pantera], [DCG]	N/A
Stability mechanism	Centralized reserve	Semi-centralized reserve	ETH over-collateralization	Issues bond + shares	Fluctuates stablecoin balances	Issue bonds
Strength	In market	Transparency	ETH holders bootstrap liquidity	Separates speculation from utility; shares can incent exchanges to list stablecoin	No bonds/shares needed	Upside for early stablecoin holders
Weakness	Trust, single point of failure	Counterparty risk	Vulnerable to drop in ETH	Requires stability fund, 3-token system is more complex	Requires users to speculate, upwards price pressure makes peg more difficult to maintain	Requires reserve buffer, upwards price pressure makes peg more difficult to maintain

04

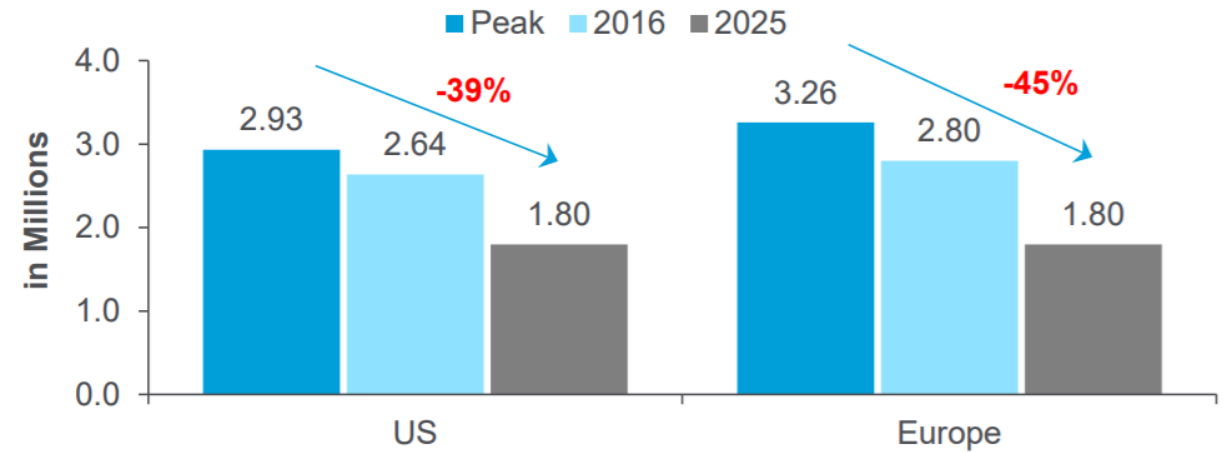
Fintech, Friend or Foe? – Bank's future...

Aghast? - Wide adoption of AI and automation

Commercial Bank Branches per 100k Adults by Region

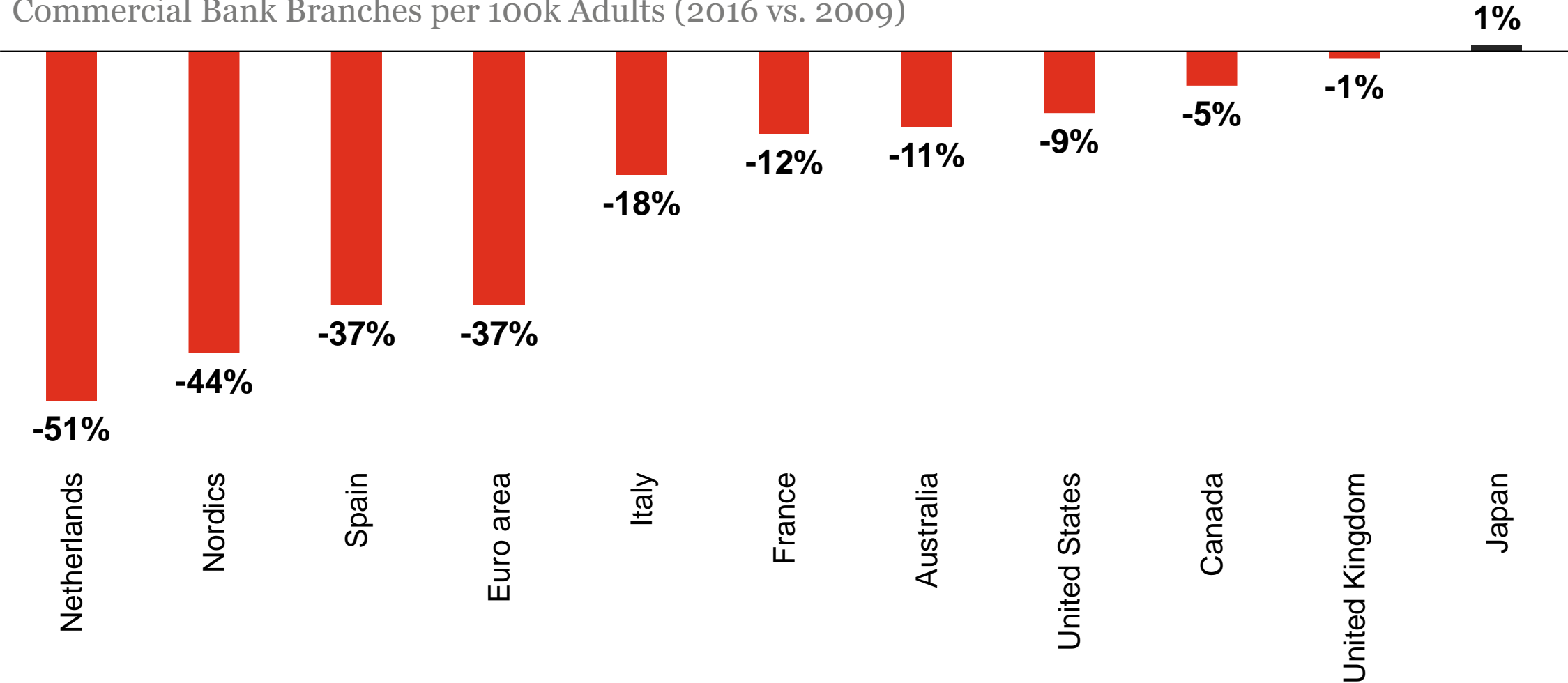


Full-Time Employee Reduction (million)



Branch density in developed markets, **excluding Japan**, is down

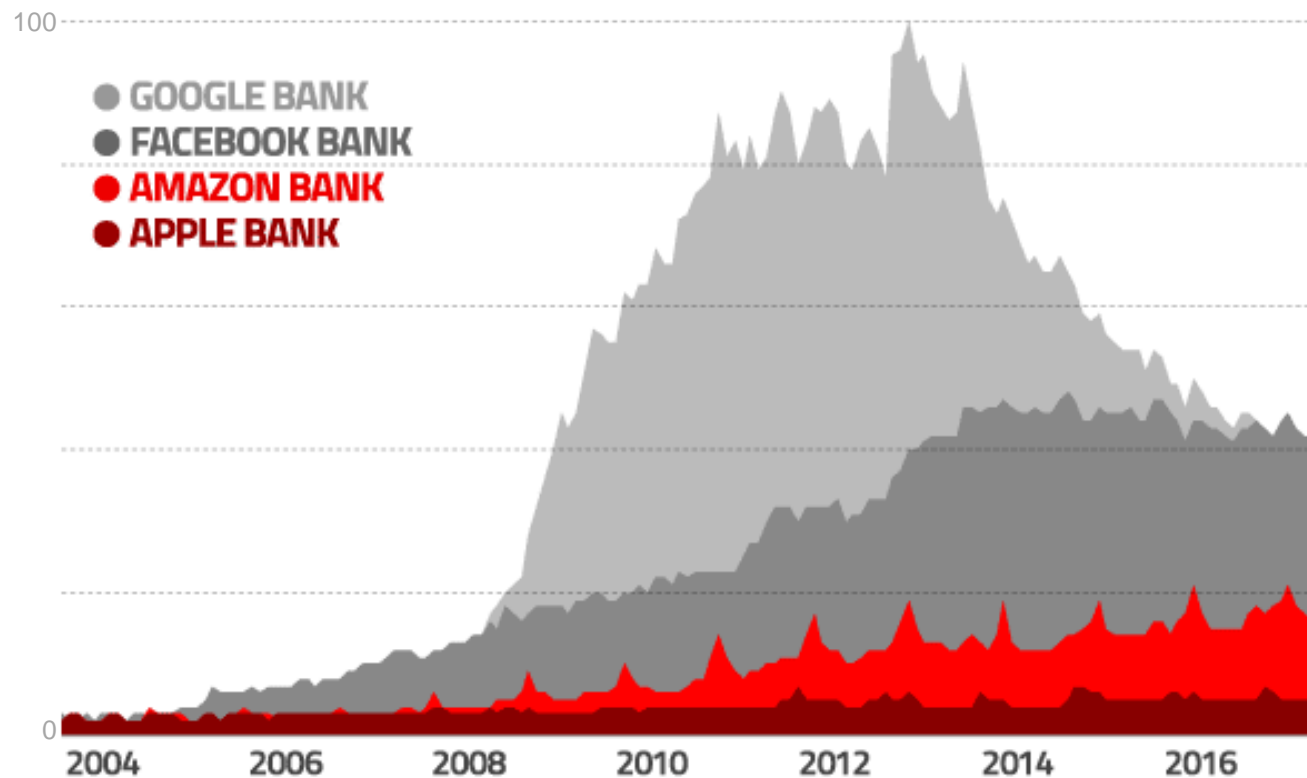
Commercial Bank Branches per 100k Adults (2016 vs. 2009)



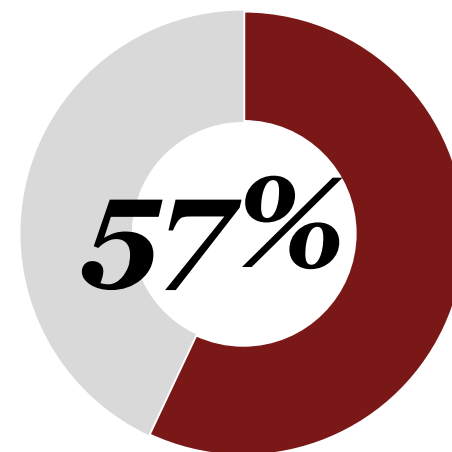
Source: Citi GBS "BANK OF THE FUTURE The ABCs of Digital Disruption in Finance," March 2018; IMF, World Bank, Citi Research

Market expectation on being digital

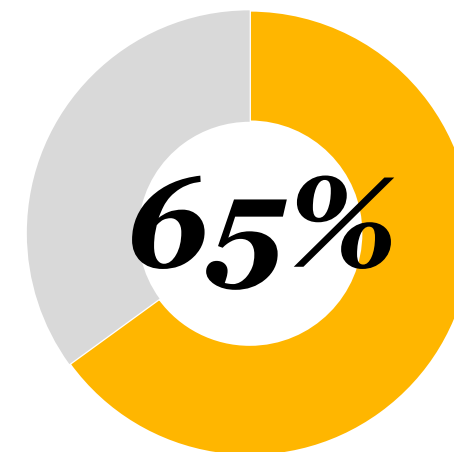
Mounting demand for GAFA banking model



Digital Leadership in Choice of Bank



of Millennials would change their bank for a better tech platform



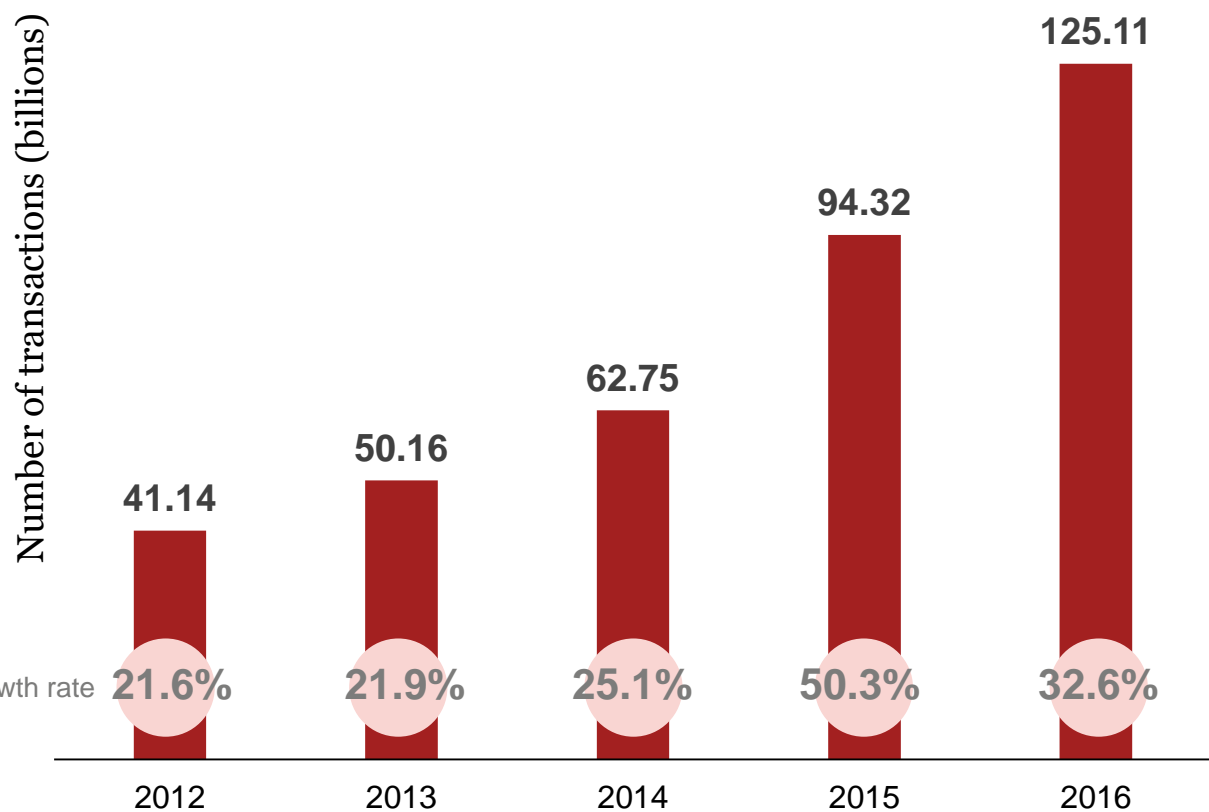
of clients would consider leaving a firm if digital channels are not integrated

Note: Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term

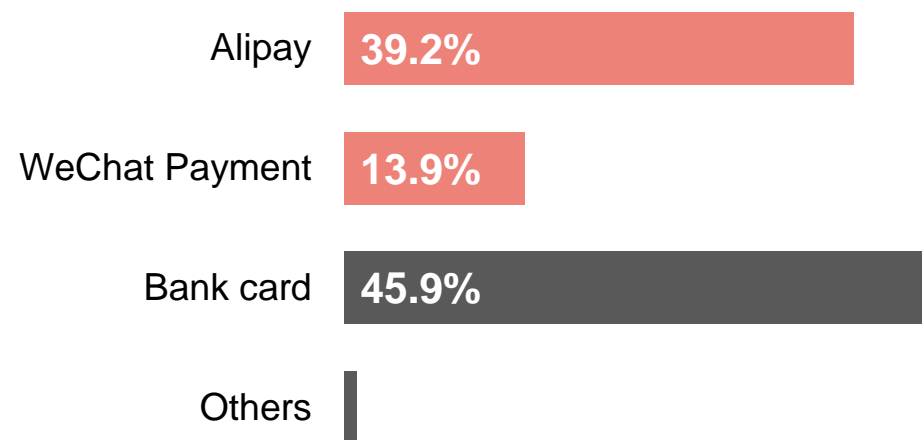
Source: Google Trends, Citi GBS "BANK OF THE FUTURE The ABCs of Digital Disruption in Finance," March 2018

China shows the way

Number of non-cash payment transactions in China



Payment methods used for the purchase of online



“
In 2017 we saw China’s five largest banks all announce major partnerships with FinTech giants such as Baidu, Alibaba, and Tencent.

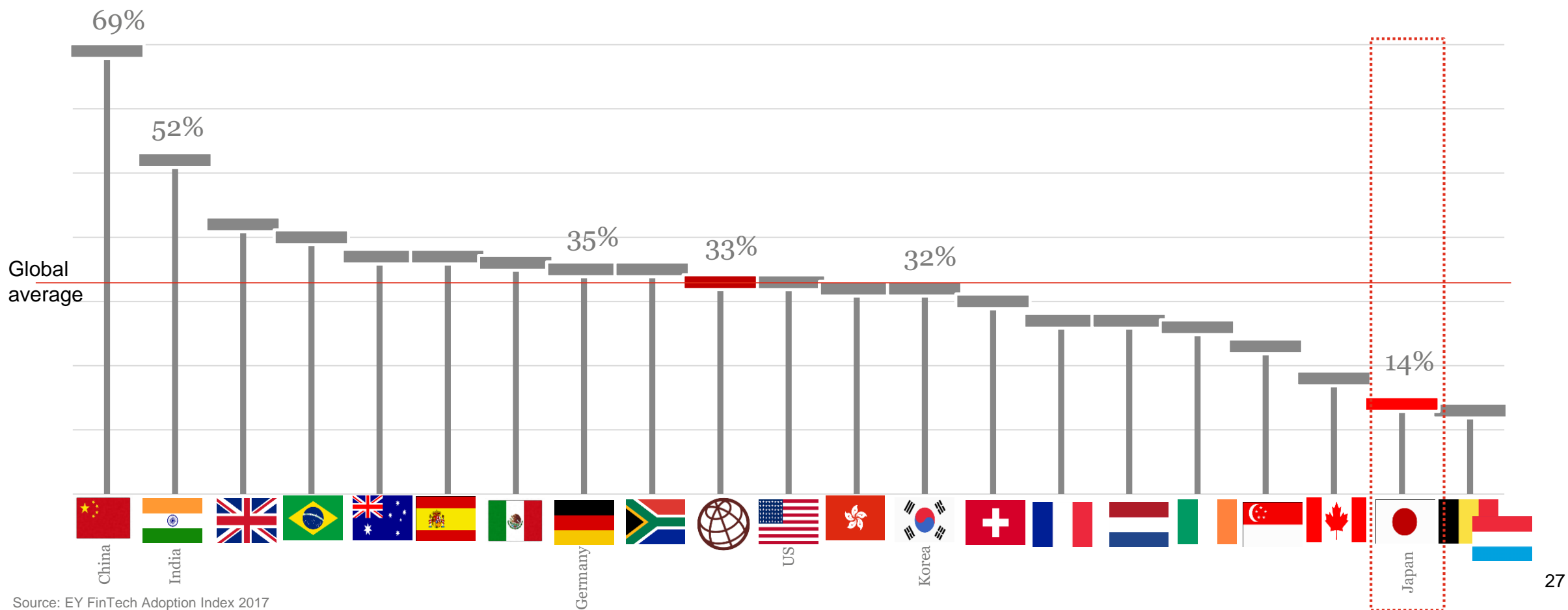
Benson Cheng
PwC CHINA FINANCIAL SERVICES PARTNER

05

Japan

Japan is not embracing fintech...just yet

Progress of FinTech adoption globally in 2017

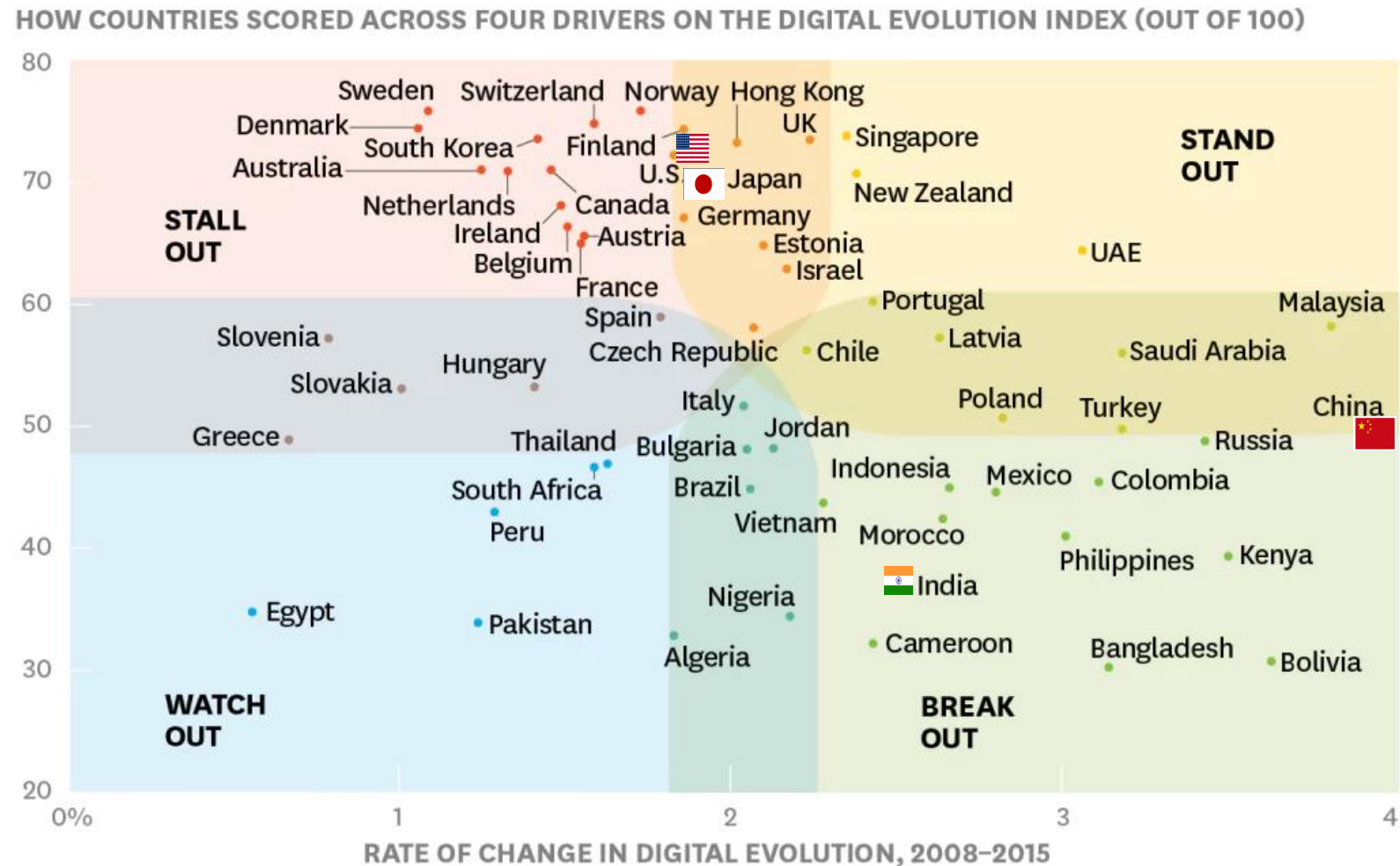


Source: EY FinTech Adoption Index 2017

Is Japan being stalled in preparing for the digital economy?

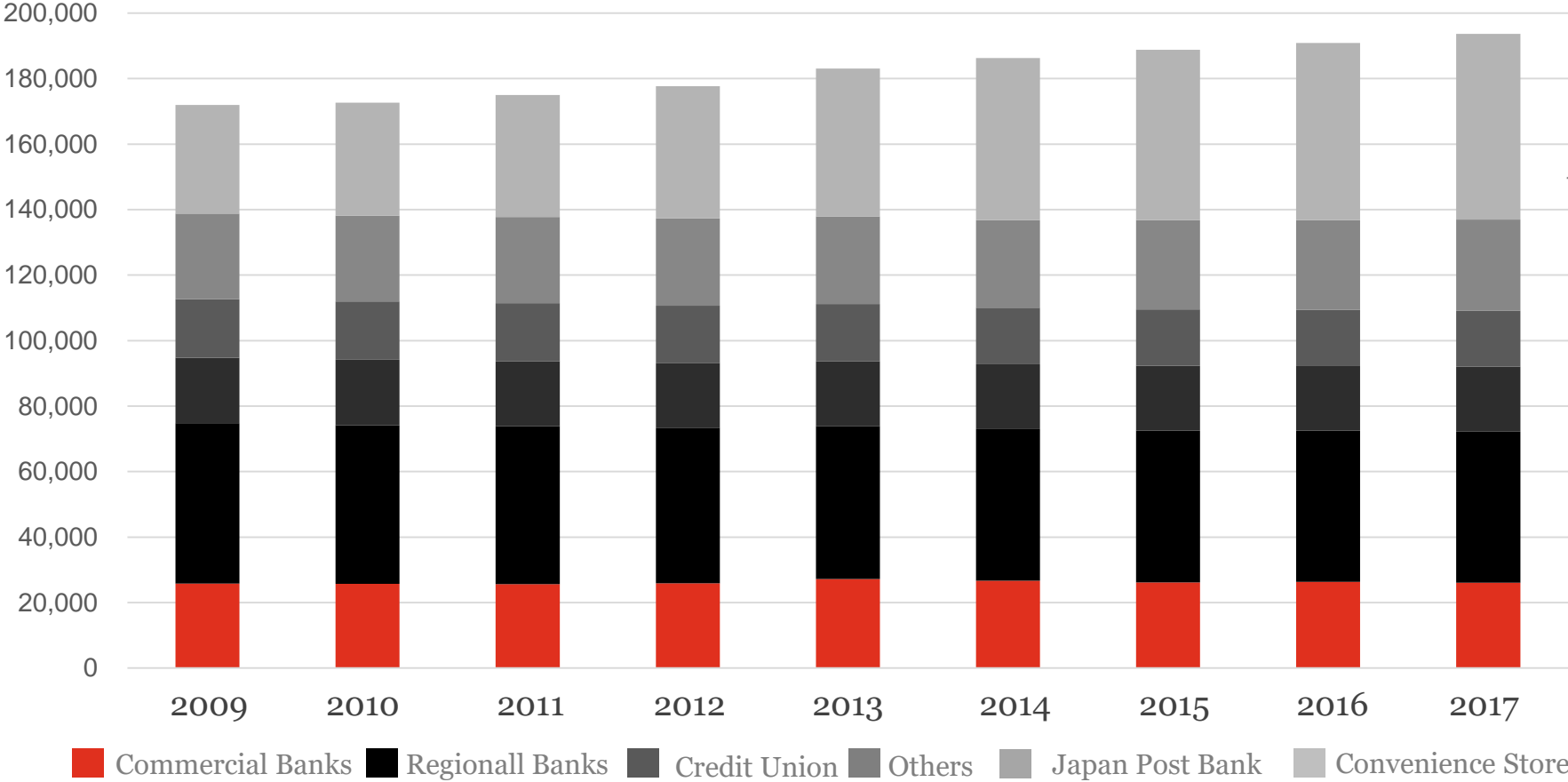
Digital Evolution Index

- **Japan** is categorized as a “**Stall Out**” country, which is losing momentum in digital evolution, but making a slight progress in the last two years
- **China and India:** “**Break Out**” countries that have the potential to develop strong digital economies



Physical ATMs in Japan are still increasing in numbers

Number of ATMs in Japan



Convenience store ATMs over bank-operated ATMs

- Over 56,000 in 2017: the number of ATMs at convenience stores has risen from ca 33,000 in 2009
- Banks are even turning to convenience stores themselves for operating their own ATMs.

Source: Money Forward analysis with data from Japanese Bankers Association, and Seven Eleven and Aeon Banks IR

Numerous initiatives but speed and impact are not here...just yet

Some of the major digital payment initiatives in Japan

Who	What	When
Mitsubishi UFJ Financial Group	Blockchain-based MUFG Coin is pegged to the yen and may use both QR codes and FeliCa. Will enable P2P and point-of-sale payments plus transfers.	Under internal testing with no clear timeframe for general release.
MUFG, Mizuho Financial Group and Sumitomo Mitsui Financial G	Agreed to collaborate on developing common standards for QR codes .	MUFG CEO Nobuyuki Hirano confirmed the arrangement on March 15 without giving a schedule.
Bank of Fukuoka, Yokohama Bank and Resona Bank	QR code settlement system called Yoka Pay at Fukuoka and Hama Pay at Yokohama that draws directly from accounts.	Mostly available now. Fukuoka Bank plans to have the platform in place at 1,000 merchants within three years.
Mizuho	Mizuho Wallet, a FeliCa-based digital wallet , is available for phones with Google's Android operating system.	Spring 2018
Ripple Labs and a consortium of 61 Japanese banks	Blockchain-based app that will enable customers to settle cash transfers instantly around the clock.	Three of lenders, including Resona, aim to roll out the service later this year.

06

Conclusion

Last year at this conference, I closed my speech with...

To catch up with the Global pace, Japan needs...

... to become a Transformer



Japan still needs to **break the spell of inertia** associated with well-established (banking) business models that **made Japan once successful**.



“

Whenever you see a successful
business, someone once made a
courageous decision.

Peter F. Drucker

Thank you!

Disclaimer: The views and opinions expressed in this presentation are those of the presenter and do not necessarily reflect the official opinion or position of any organizations.

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