From pipes to platforms

Imagining an Uber moment in the financial services sector

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01 Summary

In 2009, Uber exploded onto the scene. In a little over eight years, it has assembled a platform of 160,000 cars[1] and 40 million users across 500 cities,[2] and raised over $ (USD) 8.8 billion of capital.[3] Much of this growth occurred since 2014 and constitutes our Uber moment. Uber is a prime example of a new kind of business model commonly referred to as a "platform". Uber, like Airbnb, Facebook, Alphabet's YouTube, Amazon and Apple's iPhone, uses connectivity to bring together consumers and producers in an open ecosystem. Platform businesses are reinventing and then dominating industry sectors, as well as taking opportunities from under the noses of incumbent providers. In 2009, text messaging was the high growth product for telcos, accounting for circa 15% of revenues[4] and yet WhatsApp, a start-up with only a handful of engineers, snatched this market away from them. WhatsApp now has more than a billion users,[5] processes more messages than the entire telco industry,[6] and provides voice and video services over its open platform. In the e-commerce sector, Amazon became the world's largest retailer in 2017, connecting over 304 million consumers[7] and 2 million merchants[8] on its open platform.

The conventional wisdom is that financial services is unique and somehow immune to its own Uber moment. Conventional wisdom is that financial services is protected from wholesale disruption by complex regulation, low customer engagement, the brand and franchise strength of incumbents and the stickiness of the Personal Current Account (PCA). Conventional wisdom is that the financial services sector, like the utilities sector, is fundamentally a pipes business in which products are manufactured and then pushed to consumers.

In our "Uber scenario"[9], we seek to challenge this viewpoint. We take the view that financial services is not fundamentally different to the transport or telco sectors (or indeed the media, music, hotel, travel and e-commerce sectors). We will make the case that financial services actually lends itself well to a platform-based architecture in which consumers can conveniently and confidently acquire financial services, and producers can seamlessly access consumers. In this scenario, we believe a platform-based structure offers significant utility to consumers and to the real economy (and could indeed be integral to the growth and sustainability of the emerging digital economy).

[1] "Ubernomics", Fortune website, http://fortune.com/2015/09/17/ubernomics/, accessed 15 February 2017.

[2] "Uber app riders", Fortune website, http://fortune.com/2016/10/20/uber-app-riders/, accessed 15 February 2017.

[3] "Uber", Crunchbase website, https://www.crunchbase.com/organization/uber#/entity, accessed 14 February 2017.

[4] This is an estimated figure.

[5] "One billion", Whatsapp website, https://blog.whatsapp.com/616/One-billion, accessed 21 February 2017.

[6] WhatsApp processed over 30bn messages a day in 2015, as compared to 15bn for the entire telco industry ("WhatsApp overtakes text messages", The Telegraph website, http://www.telegraph.co.uk/technology/news/11340321/WhatsApp-overtakes-text-messages.html, accessed 14 February 2017).

[7] "Number of active amazon customer accounts worldwide", Statista website, https://www.statista.com/statistics/237810/number-of-active-amazon-customer-accounts-worldwide/, accessed 14 February 2017.

[8] "Amazon to host forum for its marketplace merchants", Seattle Times website, http://www.seattletimes.com/business/amazon/amazon-to-host-forum-for-its-marketplace-merchants/, accessed 21 February 2017.

[9] We define the "Uber scenario" as the emergence of a mass adoption platform business or businesses in the financial services sector.

However, in order for this scenario to become plausible, we hypothesise that certain components of enabling infrastructure are necessary. These components include ultra-cheap, universal and real-time payments; open banking[10] and zero-cost Know Your Customer (KYC).[11] We also speculate on possible implications of this scenario, the most far-reaching of which may include a gradual fall into irrelevance of the PCA, and the opportunity for policy makers to liberalise Central Bank money to cover zero notice deposits. Finally, we provide a counterargument to the view that all platform models inevitably tend towards "winner takes all" market structures by highlighting the role government sponsored standards and utilities could play in facilitating open competition.

[10] Open Banking: the enablement of customer (financial) data sharing through Open APIs provided by banks and financial services providers, as per related regulations (CMA Order 2017, PSD2, GDPR).

[11] Know Your Customer is a policy implemented to confirm a customer's identification program. KYC is mostly used by financial institutions and other regulated companies to identify their clients and ascertain relevant information relevant in doing business with them ("Know Your Customer", US legal definitions website, https://definitions.uslegal.com/k/know-your-customer/, accessed 21 February 2017).

02 Current reality

Before defining our scenario, we start by stating the basic concepts that have shaped the fundamental architecture of today's financial services sector. These basic concepts are the ideas and beliefs that policy makers, financial institutions and consumers are in broad agreement on:

- Financial institutions should earn a competitive rate of return as set by the capital markets.
- In order to generate superior equity returns, most financial institutions will seek to maximise customer revenues while optimising process efficiency.
- Regulators administer rules to safeguard consumers and set capital and liquidity requirements to ensure solvency.

Presented like this, it can be seen that these basic concepts have much in common with the utilities sectors and may explain much of the similarities in market structure and model architecture. We argue here that the model architecture of the financial services sector, like the utilities sectors, is analogous to that of pipes. The pipes analogy describes how financial institutions manufacture and then distribute highly stylised financial products to consumers through proprietary, one-way channels. In the pipes analogy, manufacturers become skilled at sourcing capital, optimising process efficiency and marketing to generate consumer demand. Company size and product uniformity are key advantages in a pipes-based architecture.

This architecture has served the sector well and, absent any other industry challenges, could well be the optimal architecture for the industry.

03 Stresses and strains

There are, however, a number of emerging stresses building up in the financial services sector that make change inevitable. These stresses both challenge the economics of incumbent players and favour newer and more agile entrants. We identify the high impact stresses as given below:

- Smartphones are emerging as the predominant channel of choice and making branches increasingly redundant.[12] The average branch visits per day in 2016 was 32% lower than five years ago.[13] The trend is accelerating as smartphones offer ever greater functionality and convenience, and customers continue to demonstrate an insatiable desire towards self-service.
- Traditional products are in decline. The mainstay products of incumbent financial institutions are increasingly irrelevant to millennials, who by 2020, will make up circa 33% of the workforce, rising to 75% in 2025.[14] This starts with the most basic commodity product, physical cash (more than half of millennials prefer to use a debit card),[15] and increasingly extends to universal products, such as mortgages (home ownership among 26-year-olds has fallen from 51% to 25% from 2001 to 2014)[16] and car loans (the number of 16-year-olds with driving licences in the US has dropped by 47% in the last 30 years)[17] to more complex products such as life insurance and advice in general. Some millennials we talk to question the value of a PCA over and above a simple smartphone-enabled digital wallet.
- New entrants are picking apart the financial services activity chain. Thousands of FinTechs are attacking discrete parts of the traditional financial services activity chain, frequently targeting underserved segments and overpriced products. According to the EY FinTech Adoption Index, one in seven digitally active consumers is already a FinTech customer, particularly in the areas of payments, FX and alternative lending. Increasingly, we are seeing traditional non-financial institutions encroach upon the financial services space to support their core business (30% of Starbucks revenue in North America goes through its digital wallet).[18]

[12] One leading bank executive described the branch conundrum to me as, "No one fundamentally understands branches any more: customers don't use them; when they do they don't like them; and when you close them they leave!".

[13] "The way we bank now", EY website, http://www.ey.com/Publication/vwLUAssets/ey-pdf-the-way-we-bank-now/$FILE/ey-the-way-we-bank-now.pdf, accessed 21 February 2017

[14] "Workforce 2020: what you need to know now", Forbes website, http://www.forbes.com/sites/workday/2016/05/05/workforce-2020-what-you-need-to-know-now/#3a76ddf7d547, accessed 3 February 2017.

[15] "Millennials are saying bye bye to paper money", G Brief website, http://thegbrief.com/articles/millennials-are-saying-bye-bye-to-paper-money-658, accessed 3 February 2017.

[16] "Millennials much less likely to own home than "Generation X" and "Baby Boomers", finds resolution foundation", Huffington Post website, http://www.huffingtonpost.co.uk/2016/02/16/millennials-home-ownership-generation-x_n_9242386.html, accessed 2 February 2017.

[17] "Why there's been a huge decline in drivers" licences for millennials and "gen x" Time website, http://time.com/money/4185441/millennials-drivers-licenses-gen-x/, accessed 4 February 2017.

[18] "Starbucks wants your phone as much as it wants to sell you coffee", Fortune website, http://fortune.com/2015/07/24/starbucks-mobile-investments/, accessed 2 February 2017.

- The financial services industry is not fit for purpose to serve the emerging digital economy. For example, most financial institutions struggle with cashflow lending[19] which is increasingly demanded by a knowledge based economy and by millennials unable to offer property or cars as collateral. Furthermore, growth areas such as e-commerce, the gig-economy, IoT and toll pricing are poorly served by existing payments and credit infrastructure, which are essentially priced for high value and low volume transactions. Cards, frequently the default payment option for many applications, are simply too expensive and reliant on an expensive sub-industry of acquirers, issuers, schemes and processors.
- Policy makers are gradually re-engineering the sector. Policy makers recognise size and diversification are not sufficient to ensure stability and may in fact be counterproductive.[20] Furthermore, they are increasingly recognising that competition and innovation are important levers in reorienting the sector to better serve the real economy.

Against these emerging challenges we ask the question — is there a role for platforms to better serve both consumers and producers by bringing more competition and choice to the market?

[19] Where there is no underlying physical asset or collateral.

[20] This is the thinking underpinning Too Big To Fail and Ring-Fencing policy initiatives.

04 How could this play out?

In our "Uber scenario", we envisage a future in which the industry model shifts from pipes to platforms. In the platform model, the platform provider is no longer in the business of production; instead, the platform provider creates an open ecosystem where consumers and producers can interact.

In the platform model, we hypothesise platform providers might offer the following features:

- Plug and play infrastructure for consumers and producers to connect.
- Governance to maintain quality and trust among participants.
- Incentive structures to ensure both sides are rewarded for the value created.
- Data and identity exchange to drive new interactions.
- A critical mass of consumers and producers.

We also hypothesise that consumers and producers might realise the following benefits:

- Consumers would be able to send money to registered individuals and businesses seamlessly.
- Consumers would be able to connect directly with a large number of independent producers with minimal switching costs.
- Consumers would be able to select and conveniently assemble the components of their optimal products.
- Producers would be able to access better customer data and connect directly to consumers, thereby reducing marketing and onboarding costs.
- As consumer data on the platform grows, consumers can benefit from bespoke support and guidance provided by the platform in order to confidently make the decisions that further their best interests.
- Consumers would be able to control and share their data securely and conveniently to save money on financial services and other non-financial services products.

In this platform world, the network becomes increasingly valuable as consumers and producers interact, and their data trails can be analysed and provide feedback to consumers and producers to generate insight which in turn can generate yet more interaction. Users of the platform would, over time, generate increasingly meaningful identities which would also have value in non-financial sectors. Central to the platform model is the role of the smartphone. The smartphone itself becomes a universal banking product, as ubiquitous as a wallet or a credit card, but with infinitely more functionality.

In order for this scenario to become reality, we believe there are a number of necessary factors, some of which are already in place and others in development.

- Ultra-cheap, universal and real-time payments: Payments are critical to any meaningful on-platform interaction. Platform payments need to be:
  - Ultra-cheap, in order to reduce friction and support the micro-payments required by the digital economy.

- Universal, in order to facilitate interoperability between the many platform users.
- Real-time, in order to allow instantaneous settlement with unknown counterparties, thereby eliminating the requirement for sponsoring institutions.

The UK has rolled out the Faster Payments initiative which fulfils most of the requirements above, albeit its usage is restricted to the top 17 banks and building societies.[21]

- Open banking: Secure, consent-based availability of consumer data is essential to generating value and trust on the platform. Open banking is a natural consequence of General Data Protection Regulation (GDPR) and Payment Services Directive (PSD2) legislation and has been adopted by the Competition and Markets Authority (CMA) as an order to go live in 2018. Open banking will allow consumers and Small and Medium Sized Enterprises (SMEs) to share transaction data with third parties in order to access better deals and services.
- Zero cost KYC: Eliminating the cost of KYC and therefore new client onboarding is crucial to the development of multi-user platforms. Open banking will support some elements of KYC by allowing the digital transmission of bank data, however many elements of KYC still require paper-based identification and some face-to-face contact. These inefficiencies create significant barriers to switching. There are currently no government-sponsored initiatives to either create KYC utilities or revisit KYC requirements.

Should these necessary factors be met, we believe the conditions for platform-based disruption in financial services will be met.

We think there would be a number of second order implications under this scenario beyond those highlighted above. The most impactful are outlined below:

- As the network benefits accrue, it is be expected that the conditions for a "winner takes all" scenario are created, (try naming the number two to Uber, Airbnb, Facebook, Amazon, and Skyscanner). While this is a straightforward conclusion to our scenario, we also provide an alternative view below.
- As consumers are able to pick the most relevant and convenient financial services products from across an ecosystem of providers, they will inevitably deconstruct the basic PCA. The basic PCA provides payments, a store of value, identity and short term credit. FinTechs excel in payments and short-term credit, and identity is inherently wrapped into the platform. This leaves the PCA as the provider of a store of value only, which can easily be replicated by any digital wallet.
- In a world of ultra-cheap, universal, real-time payments and unbundled PCAs, the central bank could, if it chose, require that the all zero notice, deposit accounts are held directly under pooled or nominee accounts at the central bank. This would give the central bank greater control of liquidity risk, the money supply and interest rates. This would also enable FinTechs and financial institutions to offer deposit taking with greatly reduced capital requirements, as the deposits would be guaranteed or held by the central bank.

[21] "FAQs", Faster Payments website, http://www.fasterpayments.org.uk/faqs, accessed 2 February 2017.

05 Assumptions and alternative scenario

In our standard "Uber scenario", the largest platform provider typically benefits disproportionately from self-reinforcing network benefits — often known as the "winner takes all" outcome. We have made two assumptions that are consistent with this outcome:

- Consumer identity and the data associated with it is proprietary to the platform, or is at least hard to port between platforms.
- KYC is proprietary to the platform and reliance cannot be ported between platforms.

However, these two assumptions are not certainties. Policy makers could step in and provide standards, or even utilities, that provide identity and KYC on an open architecture basis. India is a leading example of a country that is building this infrastructure, in particular through the Aadhaar and e-KYC programs. The Aadhaar and e-KYC programs have created centralised databases of smartphone, biometric and basic KYC markers for 100's of millions of citizens[22] that can be used for commercial third party authorization. Both of these programs remove basic switching costs and are likely to create a more level playing field between platforms.

Acknowledgments:

We had a lot of fun imagining what financial services would look like under an Uber moment and hope that we have presented some provocative concepts. I would like to explicitly reference Nandan Nilekani and Sangeet Paul Choudary as the inspiration behind this scenario. Nandan Nilekani is a chief architect of many of the exciting concepts in development in the Indian market, and Sangeet Paul Choudary is a leading thinker on the topic of platforms.

The paper represents the opinions of the author and not necessarily EY's point of view.

[22] Aadhaar now holds biometric data on c.1.1bn citizens ("India's massive Aadhaar biometric identification program", Wall Street Journal website, http://blogs.wsj.com/briefly/2017/01/13/indias-massive-aadhaar-biometric-identification-program-the-numbers/, accessed 21 February 2017).

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