



The Platform for Disruption

How China's FinTech will change how the world thinks about banking

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October 2015



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FOREWORD:

At Innotribe, we are honoured to enable the publication of this white paper in collaboration with Kapronasia and The Disruption House. I express my gratitude to Zennon Kapron and Haydn Shaughnessy for their work and dedication in authoring this timely research which was released on Monday 12 October 2015 at Sibos, the world's premier financial services event. With Sibos taking place in Singapore and Innotribe dedicating one day of its conference programme to platforms, it was the perfect opportunity to explore "How China's FinTech will change how the world thinks about banking".

Through a combination of regulatory reform, a unique cultural environment and fast moving technology companies, the shape of the financial industry in China is rapidly changing. No longer simply duplicating western business models, China's large technology companies are redefining one of the world's oldest industries. They are now going global, bringing entirely new challenges for western financial institutions which are increasingly turning to the startup community for ideas and growth.

Zennon and Haydn conducted primary analysis and market research to present a detailed view of the history of China's financial industry, the models behind the extraordinary growth of technology companies as players within the financial world and the impact of reform and regulation.

This paper is the third in a series published with the support and contribution of Innotribe to highlight topics that were at the top agenda of this year's Innotribe programme at Sibos. Previous papers on Millennials and Power Women in FinTech are available on innotribe.com.

Peter Vander Auwera
Co-Founder, Innotribe



While Innotribe is pleased to facilitate this publication, please note the views expressed in the paper are those of the authors: Zennon Kapron and Haydn Shaughnessy, and not those of SWIFT or Innotribe.

Introduction

Disruption: Finding the fault lines in finance

With digitalisation, blockchain and FinTech high on the agenda of banks, the disruption of financial services looks like a given. The question, however, is where will the definitive changes come from. Will it be distributed ledger technology, real-time settlement, the highly competitive payment space, the rise of crowdfunding, P2P lending or the new secondary markets for crowd equity projects? What if it was none of these, and yet all of them, under the umbrella of companies totally new to finance: China's tech giants?

Alipay from Alibaba, the best known disruptor, is ubiquitous in China, handling nearly 80% of all mobile payments in the country. Tencent has a chat application used by over 500 million people for daily communication and for payments and wealth management. Consumers use Baidu not only to search for wealth management products, but also to potentially purchase one of Baidu's own funds, including a RMB 3 billion big-data based mutual fund that sold out within 3 days of launch in 2014. According to the Financial Times, assets under management at Alibaba's Yu'e Bao reached RMB 599 billion (USD 96 billion) by the end of 2014, making it China's largest money-market fund.¹

**Yearly AUM increase since founding:
Ant Financial - Yu'e Bao - USD 42 billion
Betterment (US) - USD 0.3 billion**

Backed by a growing capital base that is never tied up in inventory, the financial platforms of China's big tech companies are powered by big data, informed by automated feedback loops from customer activity, driven by business experimentation rather than IT, function at an unprecedented scale and operate at a new degree of service integration. All the while they are protected from global competition through China's use of the omnipresent Great Firewall (GFW), selling to consumers who are captive to the China Internet environment.

The BAT (Baidu, Alibaba and Tencent) are highly scaled internet and mobile platforms with an IT architecture that is coincidentally primed for digital banking. The BAT are now banks. In fact, they are the world's first true digital banks.

In contrast, western banks are pursuing digital transformation projects that are dependent on a vendor community that may or may not understand the direction of change. These are vendors that banks are taking a chance on without knowing it. They might be capable of anticipating the big disruptors and using that knowledge to futureproof their clients' platforms and systems. In effect, the bank and vendor community operate within a consensus that, by its nature, remains vulnerable to disruption.

The western "digital" banks are betting on a combination of three strategies for the future:

- 1 Time intensive and expensive core platform renewal
- 2 Alliances and acquisitions in the FinTech community
- 3 A new technology with an unproven ability to scale: the blockchain, viewed by many as an alternative route to the future. In reality, it is a potential efficiency but no more than that, and nowhere is the blockchain out of its proof of concept stage for scaled financial transactions and record keeping. Whereas western banks are willing to take a huge bet on the blockchain, we have yet to see it figure in the IT priorities of the tech giants.

¹ - Gabriel Wildau, "Democratising finance: Net groups disrupt China's financial landscape," FT January 2015

Do these strategies really equip western banks with the toolkit to respond to China tech competition?

In this paper we will argue that China's technology companies are a special type of disrupter. Attuned to changes in global trade patterns and new money flows, they will bite into bank business models by enabling new modes of business and by providing precisely the new services that retail and commercial clients need, where they need them, and at an irresistible price point.

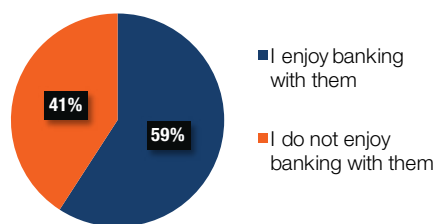
These platforms have a decade of trust building experience and are perceived as fast, convenient and easy to use based on their keen understanding of consumer habits and behaviour. They also have two other major intangible assets:

- 1 The most plentiful supply of skilled software labour in the world and the ability to ruthlessly push for continuous change from its developer base, firing out new apps, new features, new business lines and new efficiencies in the common technologies that power the internet; in contrast to western banks who are captive to that highly specialised vendor community.
- 2 Senior management that never shies away from making the most audacious moves into new markets to extend their offering. They make adjacency moves like no other enterprises in the world and have no hesitation at all in crossing industry boundaries. In fact, their ambitions are boundless but with one caveat. As Jack Ma said, *"We are interested in catching shrimp, not the whales. When you catch shrimp, then you will also catch the whales."*² Alibaba doesn't hunt whales, the company never takes on western giants in their backyard. They play the long game, preferring to develop new markets as western institutions withdraw. This market strategy will leave western banks struggling to provide services in markets that their own clients will increasingly depend upon for growth.

FinTech in the West is certainly exciting and it has introduced a competitive edge to innovation that was lacking. Companies like Wealthfront, TransferWise, and Lending Club represent the potential 'unicorns' in the financial industry, promising to change the cost structure of the industry in a fundamental way. However, their progress pales in comparison with the BAT. We will suggest that the West will not determine the future of FinTech: China will. Three companies, 1.4 billion people and China's regulators will change the pattern of global trade, the mechanics of exchange and the face of banking as we know it.

Yet how this pans out is not at all clear, even in China. Based on a survey of Chinese millennials that we completed, it still remains unclear about how far this industry disruption will go. Millennials actually seem content with their current banking experience, with nearly 60% saying they are happy with their bank, even while they prefer using Alipay!³

Figure 1: Which of the following describes your feelings about your bank?



This could be the key difference that determines whether China will make its lead truly count.

So what does it mean to be disruptive?

2 - http://resources.alibaba.com/article/19867/Interview_with_Alibaba_com_s_CEO_Jack_Ma.htm

3 - Results based on a survey of 1,000 Chinese nationals between the ages of 18-34 conducted in September 2015.

Patterns of disruption

The global financial industry is undergoing traumatic structural change and China is both a catalyst and the best example. But what does it really mean to undergo disruption? What will the implications be for western banks?

There are at least three types of disruption:⁴

1. Classic disruption theory

Devised by Harvard academic Clayton Christensen, the classic theory of disruption says that incumbents are undone by smaller companies creating “good enough”, but not great, products, that create new markets. They do that by introducing a price level that makes the “good enough” product irresistible. This pattern was true of the hard drive market in the 1980s and 1990s. As the desktop computer became established, the portable storage medium (floppy disks) was an intense focal point for new market entrants. That meant the winning product and manufacturer was always changing - 8”, 5”, 3.5” (like the CD-ROM making laptops viable), USB stick, CD-ROM, DVD, Cloud. Each medium faced its moment of disruptive innovation.

There seems very little application of classic disruption in finance. We see numerous startups that compete on price but it would be wrong to say their products are just “good enough” or particularly innovative. Very simply, they are disaggregation products.

Take TransferWise as an example. It certainly reduces the price of currency transfers and uses an account netting process to do so (i.e. I don't actually convert currency, I use the currency that somebody else wishes to convert). But in a sense, this builds on the concept of correspondent banking and nostro accounts. To be truly disruptive it would need to bring in new customers who rarely use currency conversion or provide a platform that scales currency conversion to a previously unseen volume and/or creates significant adjacencies. TransferWise is in fact slow to scale and provides only one core service.

2. Platform disruption

A second line of disruption can clearly be seen in the introduction of new business platforms in the early 2000s: iTunes, the App Store, Google Maps, Amazon.com but also Alibaba, as well as General Electric's data platforms which created a global network of analytical data that General Electric could use to create new standards for aircraft and turbine maintenance. Expedia's 8,000 strong business partner community, WordPress. Each of these was disruptive in its own way. These platforms enabled other people's businesses, businesses such as app development, data analysis, publishing from templates and so forth.

4 - There is arguably a fourth line of disruption represented by asset light businesses like Uber. These types of companies have scaled rapidly because they do not invest in physical assets. However that model is not new and it seems at this stage they introduce new efficiencies rather than creating new markets.

Platforms disrupt in three ways:

- 1 Firstly, they enable new, highly scaled business ecosystems like App Stores that often reduce the unit cost of services and bring price pressure or high margins that incumbents cannot deal with (in consumer electronics, over 56% of incumbents representing 88% of market value, are financially stressed due to the success of Apple and Samsung).⁵
- 2 Secondly, they permit new economies of scope, enabling the platform owner to enter many more business segments such as Apple in health and Alibaba in finance.
- 3 Finally, they force the platform owner to change their basic processes. Becoming a platform requires them to think and act differently. They need to attract the participation of large numbers of third parties or small numbers of critical partners (as with Baidu's wealth management partners), increase the speed of innovation in order to serve these broader communities, and integrate customers into iterative product development. All the while, aiming for scale and scope by constantly pressing at the market's edges to find new opportunities and having the business processes to predict and budget for pivot points.

These platform behaviours are very difficult for many established financial institutions to adopt.

Why? Because banks organise IT around infrastructure rather than the objectives and practices of platforms (speed, iteration, pivot, community, network and scale). Platforms do not necessarily create new markets but they do disrupt the enterprise and challenge many of the assumptions of the enterprise as an operating model.

We are already beginning to see companies across the globe turning to platforms for financial services and trade services integration, not only on small platforms like Traxpay and Ariba but on major vertical platforms in construction equipment and health system procurement. Trade and pay on a platform will become the norm.

3. Open source

The final obvious source of disruption is open source. Originally open source would mean open source software but increasingly new areas are adopting open source practices. It is responsible for much of the infrastructure of the web. It enables speed in software development as well as more efficient code. But crucially it is the source of new movements like digital currency including Bitcoin, with wholly new markets emerging as a result.

Although banks have begun adopting open source components, they need to adopt an open source mindset, which is a more meritocratic, free agent view of the creative or productive process and the responsibilities one takes on during work.

5 - "Fifty-six percent of companies in this technology sector—representing a full 88% of overall sector revenue (excluding Samsung and Apple) —have already fallen into financial stress or are at high risk of doing so" Alix Partners 2014 Global Consumer Electronics Outlook November 2013 <http://www.alixpartners.com/en/Publications/AllArticles/tabid/635/articleType/ArticleView/articleId/822/categoryId/28/A-Tale-of-Two-Tiers.aspx#sthash.prIQQRnB.dpuf>

The disruption argument applied to finance

There is another viewpoint which says finance as a whole is experiencing classical disruptive threats.⁶ The argument says the likes of TransferWise and Betterment, or perhaps blockchain applications, are classic cases of companies that develop products that are lower cost, not necessarily fully functional yet, but are drawing people into the market for financial services. According to this account, using Asia as an example:

- 1 Banks in early-stage emerging markets such as the Philippines and Indonesia (where bank account penetration is <40%) are threatened by telecom operators who have started to disrupt the financial services sector by creating mobile money services among the unbanked.
- 2 In late-stage emerging markets such as China and Thailand (bank account penetration at 40%-80%), online payment providers have built a disruptive foothold through e-commerce payments among small merchants and consumers without credit cards.
- 3 In developed markets (Japan and Australia where bank account penetration is over 80%) peer-to-peer (P2P) lenders offer attractive interest rates to lenders and investors by cutting out banks.

This classical argument, however, leaves a lot of questions unanswered. Telecom operators have had a foothold among the unbanked now for a decade, beginning in Africa with M-Pesa, and have struggled to move on from services such as remittances and payments until the last two years (they now offer loans). In fact new banking services via the mobile phone have overtaken mobile operator services in China and significantly in innovator countries like Korea because of the growth of the app economy. Certainly mobile operators have created a new market in Africa, but increasingly by allying with the banks (who provide M-Pesa's loan facilities). This kind of development can justifiably reinforce bank assumptions about their immovability in the market.

There is also a case for arguing that in China the shadow banking industry is an overlooked disruptor.

In China, it is misguided to call Alibaba's control of online payments a "foothold". It is a dominant market position that has already been converted into wealth management, lending and now banking at lightning speed.

China, rather than Japan or Australia, is the most dynamic market for P2P lending and, in fact, crowdfunding rather than P2P is likely to be a disruptor in any one of these markets. We have seen, in the case of Lending Club, for example, that P2P can simply become a new distribution channel for bank lending.

Classical disruption theory also fails to take into account the global nature of disruption. We are beginning to see China's tech platforms adopt a global strategy, with investments across India, Africa and the US, and investments in global logistics, as part of a much more integrated service array. This integration could well be the key disruptor. It is dependent on a technology and business services platforms that are audacious in their scale and scope.

6 - Innosight Disruption Ahead: Financial Services In Asia Leadership Strategies in an Era of Market Transformation Spring 2015

China's economy

The reality of globally changing money flows that we touched on earlier has to be set against the backdrop of China's spectacular growth. Although there has been some foreboding of crisis in China, the reality is that the country is altering its economic development pattern with a much stronger emphasis on creating value-added processes domestically. Arguably, a strong reason for the latitude given to Alibaba is that it is capable of fostering an alternative development scenario where smaller businesses become global businesses.

Leaving aside recent pressures, China's economy over the past three decades has outperformed nearly every other global economy and is now the second largest in the world. China has the world's largest rail network with 112,000 KM of track as of 2014, enough to wrap around the globe nearly 3 times. China has brought more people out of poverty than any other country in modern history. Just the number of China's internet users is double the entire population of the United States. We could go on and on with the unique ways that China has shattered everyone's expectations besides its own.

The Chinese financial industry has been integral to this growth. Although capital markets in China are arguably not as efficient as they should be, any funding slack has been taken up by the banks which have been more than happy to lend, especially with the government heavily subsidising and supporting their expansion. This has been effective. Banks have lent more, and in the process, have grown the largest balance sheets and client bases in the world while China's large state-owned enterprises like China Mobile and PetroChina benefited from nearly limitless access to capital.

While this was great for the SOEs⁷ and the banks themselves, the small and medium enterprises (SMEs), the bedrock of China's economic development since the 1970s, were left out. Most of the loans from China's massive state-owned banks are directed towards their state-owned industrial counterparts. SMEs have been starved for cash and many started to turn to shadow financing in either the form of off balance sheet lending from banks or informal lending.

This situation has created a huge imbalance in the industry and threatened the very basis of China's growth as SMEs continued to struggle and the true financial state of banks became less clear as even more assets were shifted off the books. The shadow lending challenge is just one of the many that the Chinese economy faces today. The government has recognised this as an issue and is looking to remedy it, but with the situation having escalated to its current state, there will be no easy solutions.

Nor are there solutions for many of the challenges that the industry faces today. The mainland stock markets grew rapidly at the end of 2014, but have slumped drastically in 2015. P2P lending platforms are failing on a semi-regular basis. Up until a couple of years ago, there was a serious lack of financial products and solutions to address both retail and commercial banking needs.

The challenges for the industry are many and the solutions few, but that is where the technology industry has started to play a role. Just before the year 2000, while the global technology world was worried about the dreaded Y2K bug, three companies were set up in China that would forever change the country's internet landscape.

7 - SOEs - State owned enterprises are the large predominantly monopolistic companies that dominate nearly every sector outside of the internet. Although many have 'gone public' through listings on the Hong Kong or mainland markets, they are still heavily government influenced and controlled. Nearly all of China's existing banks are also technically SOEs based on their ownership structure.

The Tech crunch

In the year 2000, only 22 million people in China, or 1.8% of overall population, had access to the internet; e-commerce and payments were non-existent.⁸ Payments were still facilitated through bank transfers or credit cards; mobile payments were still far from reality as mobile phones at that point tended to be oversized and still very much non-smart. There was some e-commerce, but it was very rudimentary and logistics anywhere outside of the big cities was challenging to say the least.

Much like the US, China was going through its own version of the dotcom boom as well. Mainland entrepreneurs saw the ideas that were coming out of Silicon Valley and were creating their own versions of US platforms and ideas. Some were blatant copies; others were more innovative in their offering.

Dianping for example, was originally launched in April 2003 as a site to enable users to review restaurants. The mobile app incorporated location-based services, couponing and then expanded to be a complete lifestyle site where you can read reviews for restaurants, gyms, nail salons, and more. Dianping was actually launched six months before Yelp, which would have likely been considered the closest American competitor.

Alongside these smaller companies, three players were rapidly growing. Through a combination of great execution, government relations and just plain luck, amongst a plethora of competitors, Baidu, Alibaba, and Tencent, called the 'BAT' for short, gradually became the leaders in the tech industry.

Baidu had become the country's default search engine, especially as Google China hit regulatory trouble. Alibaba had set up the original C2C platform Taobao and shortly thereafter had launched the B2C focused Tmall. Tencent produced a variety of products and services focused on communications, entertainment and gaming. Although their core business models and technology were not very innovative, they had a rapidly growing market. By 2008, China had more internet users than the US and today, the country has more internet users than the US and Europe combined.

The industry was also protected by the GFW or the 'Great Firewall' of China. The GFW was a combination of IP address filtering, packet sniffing and DNS poisoning that even today, does a fairly good job of blocking a significant amount of web content. Facebook, the Wall Street Journal, Google, and numerous other sites were blocked in China from 2000 to 2010. That gave the BAT a distinct advantage and allowed them to develop a home-turf advantage without foreign platform interference.

It comes as no surprise that the companies grew rapidly and that by 2004, the BAT were dominating their segment. Alibaba had nearly 80% of the e-commerce market, Tencent had over 400 million users and Baidu accounted for 90% of the Chinese search market. Essentially, much like their SOE counterparts, they had become monopolies in their own niches.

Figure 2: Websites Often Blocked in China

CATEGORY	WEBSITE	MOST RECENT DATE BLOCKED
General	Google	2014
	Picasa	2009
	Dropbox	2014
Media	New York Times	2012
	Bloomberg	2012
	Wall Street Journal	2013
	Reuters	2013
Social Networking	Facebook	2008
	YouTube	2009
	Twitter	2009
	Instagram	2014

8 - China Internet Network Information Centre (CNNIC), January 2014

Expanding internationally really wasn't an option for the companies in the early 2000s as they still had to innovate at home and the home-grown solutions were arguably not as strong as those of their western counterparts. They needed something different to grow. They were looking for something to move them in a new direction. This is when Alibaba founded Alipay and big FinTech was born.

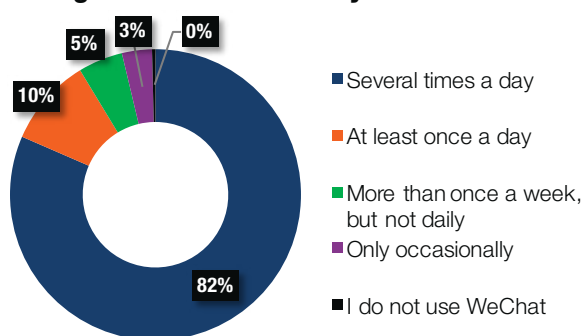
Put it on a platform

Tencent is a multi-faceted tech giant that sells everything from virtual currency to taxi bookings and movie tickets: a "one-stop online lifestyle services" platform. Based on their experience with the "QQ" instant messenger (the most popular internet messaging app in China), Tencent pushed into mobile with WeChat, a mobile-based chat app in 2011.

The app immediately had access to a user base of customers from Tencent's existing QQ internet chat user base. Shifting over and setting up on WeChat was easy for users and very quickly the app grew to become most popular app in China with over 549 million monthly active users by the end of the first quarter of 2015. Nearly 100% of China's millennials use WeChat on a daily basis. While Facebook can boast at least double that, it is the sheer range of activity that takes place on WeChat that makes it exceptional.

While having a very successful chat app drives a significant amount of advertising revenue, Tencent quickly realised that they could add other services on top of this and move from an app to a platform. 500 million chat users could be 500 million taxi bookers or fast food customers. Once Tencent went that route, application revenues began to diversify and grow. Tencent integrated additional products and businesses on the platform. To facilitate the payments behind these services, Tencent integrated their Tenpay payment platform, which eventually became WeChat Pay.

Figure 3: How often do you use WeChat?



Like other platforms, Tencent can afford to eschew strong revenue on its payments service because it leverages myriad products and services that are profitable. Indeed person to person payments on most third-party payment platforms (non-banks) are typically free in China and the rates that merchants pay for accepting mobile or internet payments average about 0.6%. The newer Baidu wallet is currently completely free for merchants.

This platform approach is key and a unique difference in China. In western markets like the US and UK, FinTech innovation is focused on singular applications. Lending Club provides P2P lending, TransferWise provides international payments and remittances, but no one is aiming for the extraordinary economies of scope delivered via a singular platform that is now the norm for BAT.



We might expect integrated applications from a Google or Facebook, but so far the large western platforms have been slow to create a popular payments platform. On one side, you have a number of small FinTech players creating innovative products and services. On the other, you have the existing banks who are just struggling to stay competitive. No one has been able to successfully bring them together. Well, no one outside of China...

Drive it with data

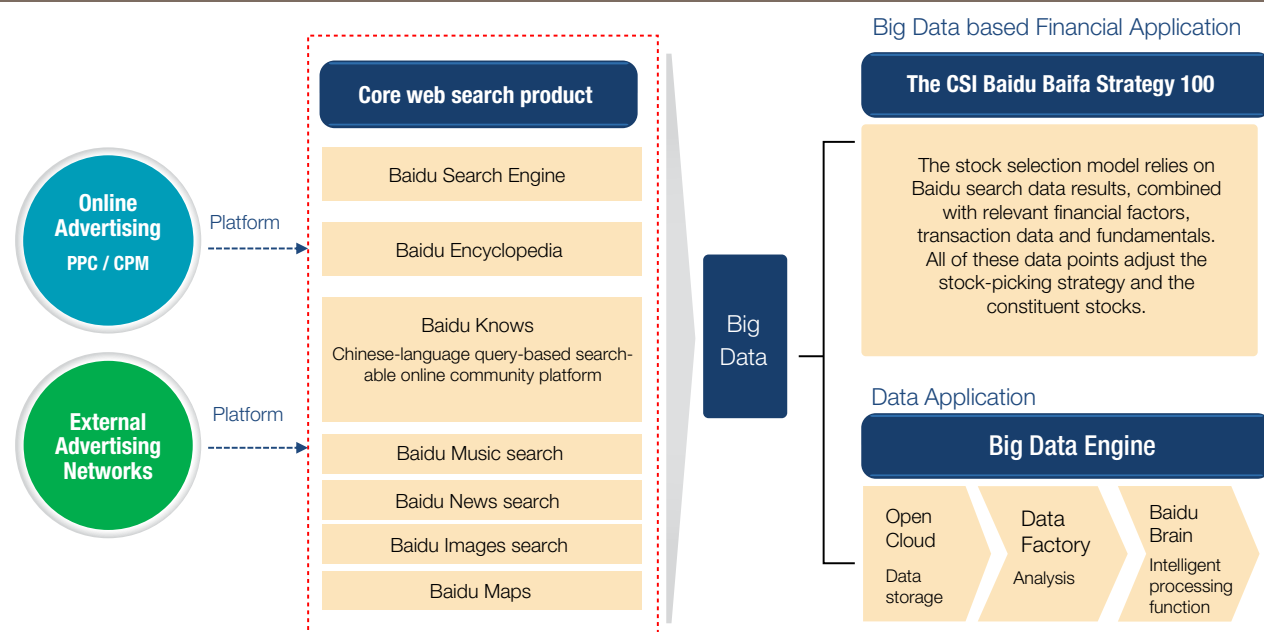
Baidu is one of the largest search engines in the world. Each month, the internet giant processes searches for over 500 million people, resulting in a massive amount of search results and analytics on the searches themselves. Of course the search giant uses that data to continue developing and refining its many products and services, but Baidu also has started to leverage it in other ways.

In October 2014, Baidu launched the Baidu Baifa 100 Index fund, a joint effort by Baidu and the China Securities Index Company. In a single morning, the fund was sold out. Based on the Shanghai CSI100 (the Shanghai Exchange's main index), the fund attempts to combine Baidu search statistics and user behaviour to trade the Shanghai market. And it's doing pretty well. The fund was up more than 50% at one point in 2014 and although the Shanghai market has gone through some wild gyrations, it has managed to beat the market since inception.

Again, Baidu's opportunity was not unique. Google could do the same. Sure there are privacy considerations, but Baidu is using aggregated search information to create the product, much like Google uses for advertising and search in the US. However, Google has resisted crossing the line into wealth management or simply failed to realise where the opportunity lay.

It is our view that the platforms and big data on their own are simply the start of a wave of disruptive innovations to come, with the key difference of the BAT being an extraordinary willingness to bet on new services, with a population base that permits rapid and extraordinary scale.

Figure 4: Baidu and The Baifa 100 Product



Basis for banking

Right now the concept of 'digital banking' is hot in western markets, having the technology and operational infrastructure to service a client anytime, anywhere and through whichever channel you want. A digital bank is, ideally, able to predict a client's needs and quickly provide a product or service that meets them.

One challenge for most of the existing banks, however, is that their legacy infrastructure is not up to the task. Most traditional banks, even in China but certainly elsewhere, are running on multimillion-dollar technology that can be decades old. Removing these legacy systems and replacing them with new is an expensive and resource intensive-proposition. The BAT are in a much better position because their technology is made for the web. Now they are banks and they are run by leaders who are able to make quick decisions on new market opportunities.

In late 2013, regulators passed a series of measures enabling the setup of so called 'private banks' (banks that are completely privately owned). Unsurprisingly, Baidu, Tencent and Alibaba applied for private banking licenses. Clearly, having already seen the benefits of having their own payments and online finance platforms, setting up private banks was an opportunity for these technology companies to bring even more services to market and capture a bigger share of users' wallets.

Tencent and Ant Financial (the banking and payment arm of Alibaba) received approvals late 2014 and early 2015. WeBank was launched by Tencent in January 2015 and Li Keqiang, China's premier, ceremoniously pressed 'enter' on a computer to approve the first loan to a truck driver from Shenzhen, one of many SME loans to come.

Whilst SME banking is interesting, what the private banks do in the consumer market will be completely disruptive. If you consider the way that Tencent has cornered the smartphones of nearly every Chinese individual and Baidu has been able to leverage big data to drive its approach to financial markets, what the BAT do with their private banks could be evolutionary and they are approaching this with a completely different set of rules and fundamentals.

Rather than being built for the purposes of supporting a bank, the BAT technology was built to handle millions of e-commerce transactions, mobile and online communication and internet searches. That is a critical advantage as it gives the BAT a technological agility that a traditional bank could only dream of. The systems at MyBank were built nearly completely in-house and sit on Aliyun, the Alibaba cloud. Not only is Ant Financial using the product for its own banking platform, but it plans on offering it as a cloud service to small and medium sized banks in the future.



Figure 5: Tencent's WeBank

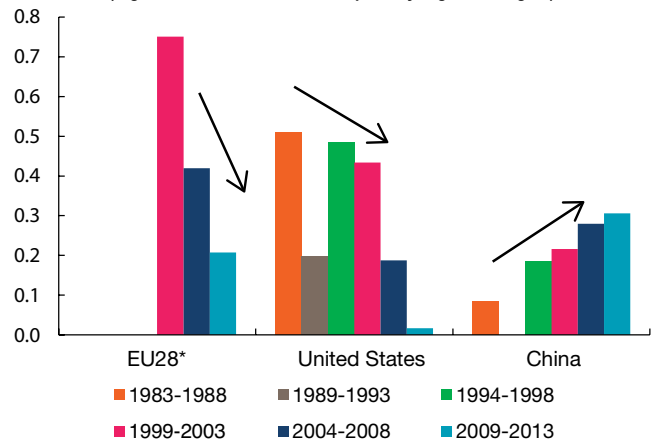
Changes in the global economy

Although these changes are happening in China they have global relevance as China's economy continues to grow into its position as the number one economy in the world.⁹ China is a vital part of globalisation as a whole. The advantages that the BAT are creating from their base in China will have a global impact, affecting the economy, trade and payments as they disrupt markets vacated by the retreating banks.

Figure 6 shows how the influence of the EU and US in trade elasticity has declined over time, and how that of China has grown. This elasticity measures the relationship between the expansion of global trade, as measured by imports, and the growth of GDP. Over the 25 years prior to the last recession, an expansion of global trade had a disproportionately larger impact on GDP growth. More trade, even more GDP. That was the virtuous cycle of globalisation.

The link between trade growth and GDP growth is breaking down as China onshores more and more of its component needs. Inevitably it will accelerate onshoring globally. As global trade growth slows, it becomes decoupled from GDP growth, suggesting that many economies may struggle to post traditional GDP gains.

Figure 6: Global Trade and GDP Elasticity
China's role in regional contributions to trade elasticities
(regional trade elasticities multiplied by regional weights)

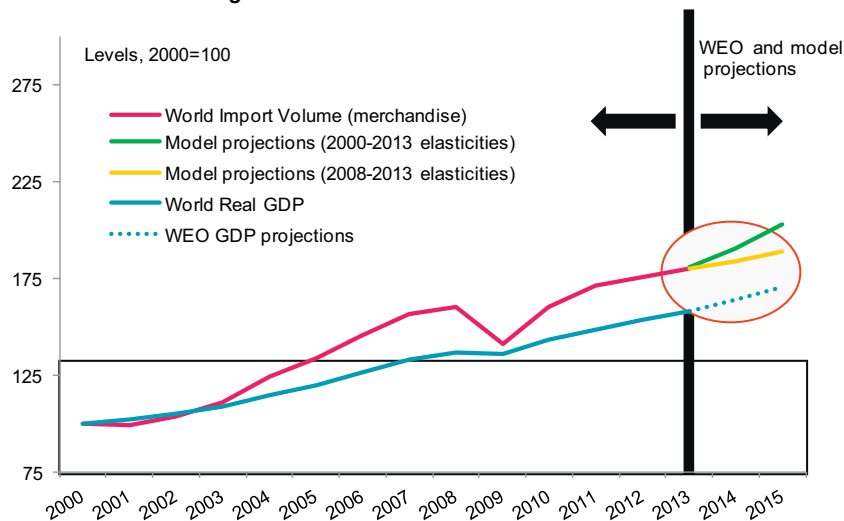


*incl. intra-EU trade

Source: IMF WEO Oct 2014, OECD, *European Commission

Take Figure 6 in conjunction with Figure 7, based on work by the International Monetary Fund, and you see that overall global trade growth may have permanently slowed due to China's influence. More worrying still for the global financial sector is that the trade elasticity decline points to national GDP figures bearing less and less relationship with international trade (and money flows).

Figure 7: Global Growth Predictions



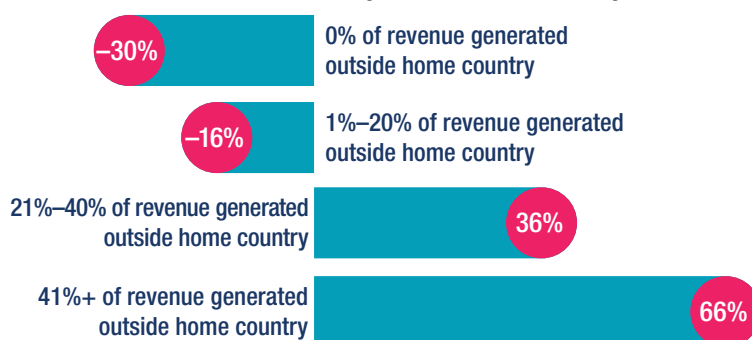
Source: IMF WEO, IMF IFS and Constantinescu, Mattoo, and Ruta

9 - http://databank.worldbank.org/data/download/GDP_PPP.pdf

Those changes have occurred concurrently with the global rise of online and offline SMEs. Smaller businesses are eating the global trade scene. The WTO estimates that smaller businesses traditionally have been responsible for about 50% of global intermediary goods trade. That figure is now looking like closer to 60%.¹⁰ Small business trade growth is likely to receive a boost from the 2013 WTO trade facilitation agreement to reduce bureaucracy around imports.

Other research shows small businesses are expanding fast across borders. According to Oxford Economics: "In three years (from 2013), the number of small firms that do business in six or more countries will more than double, from 15% today to 35%".¹¹ Additional research by The Disruption House suggests that SMEs could be responsible for USD 1.7 trillion of new money flows by 2018 on top of their already significant contribution to global trade.

Figure 8: Change in percentage of revenue generated outside firms' home country over the next three years



Source: SAP, Oxford Economics - How successful SMEs are reinventing global business

These businesses are becoming more significant because of the power of platforms. Small businesses are typically the commercial customer that banks least want to do business with.¹² Now it seems that banks are becoming more inclined to conduct business with SMEs based on the potential rapid growth of these businesses and increased business for the banks in the future with these prospective businesses.

These are exactly the target market of Alibaba and are an interesting feature of the Chinese economy, where they account for 80% of urban jobs, and hence have been the focal point of recent fiscal policy.¹³ According to recent academic studies, the disproportionate significance of small companies is a feature of all emerging economies and another reason for Alibaba's focus on India and Africa as well as its home country.¹⁴

10 - WTO/UNCTAD World Investment Report 2013: CH 4 Global Value Chains: Investment and Trade for Development http://unctad.org/en/PublicationChapters/wir2013ch4_en.pdf

11 - How Successful Small Firms are Reinventing Global Business, SAP 2013

12 - Mills and McCarthy make the point that small business loans from banks in the US have been in decline since 1995 when they stood at 50% of all bank loan value to 2012 when they stood at 24%. The State of Small Business Lending: Credit Access during the Recovery and How Technology May Change the Game Karen Gordon Mills and Brayden McCarthy HBR Working Papers 2014. PWC report that European banks still need a further \$280 billion to reduce their balance sheet leverage. Increasing European SME Access to Credit with Non-bank Lenders 2014. The ECB puts the total outstanding corporate loan portfolio at EUR 4 trillion (quoted by the EIF who also point to the structural problems of SME lending in Europe). Institutional non-bank lending and the role of Debt Funds Helmut Kraemer-Eis, 2014, http://www.eif.org/news_centre/publications/eif_wp_25.pdf

13 - Richard Silk China Rolls Out Tax cuts For Small Businesses, Wall St Journal July 26, 2015

14 - Small Businesses in the WTO, Kitsuron Sangsuvan <http://digitalcommons.law.msu.edu/cgi/viewcontent.cgi?article=1166&context=ilr>

This is the backdrop to China's growth and influence: platforms that make it their mission to enable small businesses to function globally.¹⁵

China, the dominant economy, is the land of business platforms for small business enablement and has taken the model further and faster than even the US companies responsible for inventing it.

In terms of overall disruptive power, Alibaba, and its peers, are helping to turbocharge the small business sector, through a unique business model, in which Chinese tech companies treat finance as one aspect of an overall business-enabling environment. It currently consists of adjacencies that few western companies can match and which arguably will over-stretch these young giants.

BAT are new business models

Against this background the BAT have to be seen as wholly new business models with a level of service integration that is audacious and risky, and yet works because of the power of their technology platforms. There is a second significant feature that we will mention below.

In principle these companies are championing a new form of deeply integrated business based on the ability to maintain near flawless platform performance. There are reasons specific to the Chinese economy on why this works, and enterprise strategies that could perhaps only work in China.

As already stated, the first reason is that BAT do not seek head-to-head confrontation with western counterparts outside China (whilst inside China they compete aggressively). They are expanding geographically into emerging economies including India and Africa, rather than into fully developed markets.

Alibaba has invested in the leading Indian payments platform Paytm and has partnered with production giant Foxtron to develop the SME component sector. Like Nokia a decade earlier, but with more resources, Alibaba has set out an economic development strategy for markets where it can replicate its success in China. With a population of over 1 billion people and a growing smartphone penetration, India is the perfect setting for Alibaba 2.0. Africa presents the same opportunity. Undoubtedly it does and will continue to receive Chinese government support for being an unofficial development agency in huge markets that dwarf the US in terms of population.

Figure 9: Solutions that Work: Ways that the BAT are enabling and integrating new business models

- ① Ant Financial provides working capital lending to SMEs on its e-commerce sites
- ② Alibaba provides SaaS on Cloud to foster global low friction business growth
- ③ Alibaba has created a network of platforms that match buyers and sellers
- ④ Personal financial management search and services from Baidu
- ⑤ Wealth management products on Tencent's platforms
- ⑥ Global three day logistics through Ali-invested partners
- ⑦ O2O e-commerce enabling taxi booking, restaurant reviews, movie tickets

15 - It is unclear how much trade from virtual or SaaS platforms is counted in trade flows, but could significantly affect these numbers.

Avoiding competition with western counterparts allows Chinese tech companies to invest in the growth of their businesses laterally, entering new product markets and integrating these into the core platform. This in turn requires a highly aggressive but skilled approach to IT infrastructure and IT application development. In its infancy, Alibaba in fact lagged behind companies like Amazon in its infrastructure prowess, but has since set up a special unit to replicate Amazon's cloud platform.

While Alibaba has benefited internally from having a strong infrastructure capability, application development is where Alibaba is able to push its developer teams constantly, to find new ways of reducing code and complexity. Alibaba is the epitome of BiModal IT with its infrastructure teams locking down the essentials such as user account management, security and trust building, innovating as they go with the latest in open source building blocks, while its app teams constantly push out new products and features.

It does that by giving business leaders absolute discretion in service development. It should be remembered that Alibaba's IT competency is built on the back of Yahoo China, and that Ma at one stage located his IT department in Silicon Valley and then withdrew. Whereas the Silicon Valley model provides developers with significant prestige and power, in China, business dictates to IT. Developers in a competitively structured IT services community have to provide the fastest and smartest response to business needs. It is not technology for technology's sake.

From the hardware sector, smartphone maker Xiaomi set out its stall three years ago with the mission of commoditising everything. Xiaomi sells its high quality devices at close to breakeven and then layers services on top (media, entertainment games and finance) to capture consumer spend. The company also has arguably one of the largest IoT product portfolios globally with cameras and sensors of all sorts, as well as air and water purifiers. All tied together with, guess what? A Xiaomi phone and app which are now the platform.

What the banks need to learn

The business model that will threaten western financial institutions has the following qualities:

- 1 Integration of finance into a platform of diverse services
- 2 Unprecedented opportunity for product and service cross-selling (e.g. loans for retail e-commerce purchases, rides sold with event tickets)
- 3 Rewards to customers for being part of the journey as part of a broader trust building mission
- 4 Complete enablement of consumers, producers, merchants, to make business happen
- 5 Automating, improving and leveraging consumer relationships with big data
- 6 Ultra low cost and extreme commoditisation
- 7 BiModal IT driven by the business to make decision making fast and friction free
- 8 Speed, scale, scope

Implications for the West

Whether western banks are properly attuned to the disruptions in the global market is a moot point. Opinions differ. Looked at through the eyes of their consulting partners, the picture is mixed. Top 4 advisor Accenture believes banks need to be far more professional when it comes to making systematic process change.¹⁶ Deloitte sees it differently, concluding from a survey of 200 banking executives:

“Nearly two-thirds of executives who responded to the survey anticipate new industry entrants and are pursuing innovation to keep up with potential disruptors.”¹⁷

The key words here are “potential disruptors”. Typically, even if they have teams and resources in place to identify them, incumbents miss the signs of disruption or by taking a classical approach to disruption theory, misjudge the circumstances where disruption will have its greatest impact. Banks often look at disruption in terms of product impact, in other words, how general FinTech (including distributed ledger technology, P2P lending, third-party payments, etc.) will disrupt. In reality, the biggest threats lie in the changing structure of global markets.

Here are two brief hypothetical examples:

- 1 A UK SME is expanding rapidly online and attracting a range of cross-border buyers. The company sees a significant opportunity to sell to China, and then leverage their positioning to sell to Asia. The entry will require significant upfront investment to fund a Chinese website with localised information, and a sales office, all elements of working capital that its own UK bank rejects as too risky. Its new customers also want to pay in Yuan rather than sterling or dollars so it has to take on its own currency risk at the same time as being stretched to fund growth. Without banking support, the firm may not be able to expand. However, what if it trades via the Tmall platform? The platform already has a massive share of the e-commerce market and is even able to provide credit to help with setup, and payment services to help the merchant repatriate GBP. As the company expands in China, it could then leverage Ant Financial’s new private bank MyBank to access a more robust set of financial products and services.
- 2 A large multinational needs to find growth in Asia, possibly leveraging an existing operation in another part of Asia. It would normally expect one of its banks to get behind it with some form of liquidity. However, as its distribution operations expand, it finds it increasingly difficult to meet the bank’s liquidity criteria in part due to the problems associated with providing a clear business case, as well as the lack of up-to-date information and credit assessments on its distribution partners. It has no evidence to support its normal assumptions about ad spend effectiveness and it is being outcompeted in critical segments of the market by local multinationals. Once again, this situation is tailor-made for a relationship with a platform that has in-depth information on participants in the distribution chain. In fact beyond that a company like Alibaba can invite the multinational to use its platform as a sales channel, provide it with online invoicing and receivables, and provide a flexible logistics solution that could reduce the size of the distribution chain substantially, and the liquidity problems it presents.

16 - Accenture Professionalizing Change in Banking, September 2015

17 - Deloitte How financial firms are planning to win, September 2015

These examples are both relatively simplistic and are limited to just commercial banking, but point to the underlying challenge that western financial institutions need to address: by failing to anticipate the future shape of trade and the power of platforms to deliver solutions, western banks are exposing themselves to the erosion of confidence and revenues. They are not innovating fast enough to work alongside enterprises that are under pressure to deliver growth.

Banks have many ways of responding to putative disruption: FinTech, distributed ledger technology, mobile payments or any one of a myriad of hot solutions. However, these threats require little in the way of change to a bank's core operations. They fit within the existing remit and decision lines. Even where the decision is taken to renew core technology, this fits within a vendor-led consensus that banks have to buy their way out of legacy and silos.

It seems churlish to suggest that these responses are misdirected or over-priced. Yet the growth of peer based finance, the shift to integrated platforms and the growth of integrated services are real. The only real solution for banks is to begin thinking of themselves as business platforms. They need to adopt the main characteristics of platform enterprises, namely:

- ① The ability to plan and manage in a border-less way although individual businesses operate in national banking systems.
- ② The ability to develop a Bimodal IT approach where IT manages key infrastructure but can also create platforms driven by the business and separates infrastructure from an API layer, with the capacity to move to micro services (business driven modular IT).
- ③ A strong and firm statement of purpose or narrative describing what they are changing, for which customers, and where the journey is taking them.
- ④ Capacity to provide a utility value and operate as a neutral player in the market when needed and use this to scale the offering to reduce unit cost or earn margin from third parties.
- ⑤ Orchestration as a leadership skill, building on neutrality and being the attractor with a clear market growth proposition that can translate into market incentives for third parties to work with them.
- ⑥ Onboarding facilities and capability for content and/or software to be brought into a platform
- ⑦ Existing access to a culturally diverse set of contributors for partnerships at scale or a marketplace for financial services, content and information.
- ⑧ A strong understanding of user-experience (UX) and UX design
- ⑨ Strategies for market traction of new services (in all sides of the market), scale, and network effects and sensitivity to engineering a network effect, i.e. knowing how to escape normal growth trends (what VCs call escape velocity)
- ⑩ Ability to look beyond short-term FinTech fads and market pressure to a strategy that is enabled by financial technology, not directed by it.



Conclusions

Whether the BAT disrupt the global financial system or not is clearly a matter of conjecture but there are some analytical reasons why it looks likely.

Over the past three years they have shown an extraordinary appetite for adjacencies. They have secured their position as a utility provider of infrastructure in transport, logistics, taxi booking, home deliveries, ticket purchases and many other services all integrated into a one-stop platform enabled by payments and an increasing array of banking services.

As Frost and Sullivan point out, the commercial world is moving towards platform-based solutions that integrate information, billing and payment into the transaction itself.¹⁸ This is a logical next step from the outdated EDI (Electronic Data Interchange) systems still in use, and of course from paper. This will force banks to pivot to a more integrated service model either as partners of platforms or as platforms in their own right.

As the BAT move further into financial services and products, banks will also need to further consider how and what they provide as additional products and services to customers. The BAT have already shown that services like wealth management can be provided to anyone at an affordable price, relative to the value, which often means incredibly cheap. In China, this has already increased the cost of capital for banks as deposits move onto these online finance platforms and is affecting product revenue as distribution channels shift away from the traditional models to online and mobile.

Finally, reflecting on disruption, it always happens in ways that are not anticipated. Earlier we quoted Deloitte, who believe that banks are doing well in anticipating innovation and disruption. The mere illusion that the disruption points can be anticipated is where the problems of the banks begin. In order to counter potential future challenges, banks need sophisticated planning with well-thought out options. This may take them far from their comfort zone into fast moving, agile platforms where the business is boss and the customer is served across a much wider array of needs.

It is heresy to banks which are retreating to their core, but the future lies with a radical approach to adjacency.

18 - Frost & Sullivan, Future of B2B Online Retailing (<http://www.frost.com/ma4e>), "B2B online sales will account for close to 27 percent of total manufacturing trade, which is likely to hit 25 trillion USD by 2020. Geographically, China and the United States will lead the B2B online retailing market."

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Report Methodology

The Platform for Disruption report is based on a combination of primary and secondary research.

Primary research included interviews with professionals involved in China's financial industry as well as one on one discussions with Chinese consumers themselves. In addition to the direct interviews, we conducted a survey of 1,000 mainland Chinese millennials. The survey contained a variety of questions on attitudes towards banking, technology and finance. The survey was conducted online and filtered by age.

Secondary research sources included our existing research and reports, industry journals, and other internal and external databases.