BANKING REPORTS

Five Banking Innovations from Five Continents:

USA, Europe, Asia, Africa, Australia

MarketResearch.com

Presents a white paper by

BANKING REPORTS

February 2015

Executive Summary

Banking Innovation is a global growth-sector. There are three types of banking innovations (on top of the regular IT investments done by banks[1]): (1) In-bank FinTech innovations – also known as FinServ innovations; (2) Neo-Banks as part of the FinTech community; and, (3) Non-Banking FinTech companies. Global FinTech investments almost hit the USD 10 billion mark in 2014 (USD 9.9 billion). Banking Reports' research shows that 2015 is going to be the real point of inflexion: FinTech investments are expected to reach USD 19.7 billion globally. In the next 10 years – following 2015 – FinTech investment growth will be strong but not exponential, bringing circa 20 percent compound annual growth rate to the table. We have found highly significant qualitative and quantitative differences between the five continents examined in this report. While London and New York are jockeying for the global leader's role, Australian banks are doing an exemplary and outstanding job.

Information beyond this white paper is available from BANKING REPORTS.

Table of Contents

[1] Regular IT investments done by banks are outside the scope of this report. This report concentrates on banking innovations, the cutting edge measures banks and FinTech companies are currently taking.

1. Overview of the Global Banking Innovation Landscape:

1.1. The two main sources of banking innovations: brick and mortar banks and FinTech startups

Banking innovations nowadays come from two distinct sources:

(1) Banks

4000 years of internal innovation: Banks have been around and have been innovating since cca 2000 BC. Banking began in Assyria and Babylonia, and the first product was grain loans to farmers. Innovation in the banking system has been an ongoing phenomenon ever since.

(2) FinTech companies

5 years of external innovation: The 2008 crisis interestingly brought about a change in the nature of banking innovations after 4000 years of typically internal developments. The Six Igniting Trends of the FinTech Revolution have emerged. By January 2010,[2] the circumstances were given for a rapid change of paradigm, and, in January 2011, the flagship of FinTech companies, TransferWise, was established.

1.2. The Six Igniting Trends of the FinTech Revolution: the key reasons why external innovation popped up only five years ago and not any time earlier in history.

The question arises: Why now? Why did external innovation not arise any time earlier in the last 4000 years? The answer is the parallel presence of the six key trends powering external innovation, also known as The Six Igniting Trends of the FinTech Revolution:

1. Rising legal regulatory pressure: After the financial meltdown of 2008, the amount, and the seriousness, of legal regulations on banks have significantly risen. This was partially caution and partially some sort of retaliation from the side of the authorities and political decision makers. (See more on this in Chapter 9: Innovation versus Regulation)

2. Rising financial regulatory pressure: Financial requirements have significantly tightened on banks. The amount and the quality of capital requirements have been heightened and risk-management requirements have become even more demanding than before. This makes it harder for traditional banks to take on risks, especially to land.
(See more on this in Chapter 9: Innovation versus Regulation)

[2] BitCoin was first issued (born) on the 3rd of January 2009, but only got serious attention and caught traction later.

3. Mass presence of three fairly new technologies: Smartphones, High speed Internet, Social media[3]

4. Emergence of a new consumer behavior-pattern: This new consumer behavior-pattern has a name: Millennials. Millennials are best described by three key things that define their values: mobility, transparency and instant access. The formal definition of the term 'Millennials' is debated, but Banking Reports uses it in a sense that is 'People becoming adults in or after the year 2000'[4].

5. Need for strategic renewal from within: Banks shocked the world in 2008. But, they shocked themselves even more – if possible. The financial services community came to the conclusion that strategic as opposed to incremental change is needed from within the incumbent financial establishment. Ever since World War II, the international financial community has seen a need for incremental change. But, this time the consensus was that something more is needed. This notion is what triggers the innovation from within the brick and mortar banking sector.

6. Loss of trust from outside: The financial community has suffered an unprecedented loss of trust in the eyes of the public. This distrust was especially severe from the Millennials. Their parents were the ones most hurt by the crisis (foreclosures, etc.), and they learned a lesson. This loss of trust is what makes banking as we know it so alien for a significant segment of Millennials. This emotional background is what triggers the innovation from outside the brick and mortar banking sector. This is what drives the engine in most of the FinTech companies.

---

[3] Social media is an important component because this is the type of online experience that Millennials are effectively living through their mobile devices, and this is what makes them trust online things often more than face-to-face solutions.

[4] A typical phenomenon about how millennial attitude changes financial services is the U-turn in the story of NFC technology. NFC stands for Near-Field Communication. This is the technology that VISA brands, PayWave, MasterCard, and PayPass use. This is when cards are just tapped or waved near a reader that actually reads them. Among bankers and payment-industry experts, NFC's nick-name was Not For Consumers, because virtually no one embraced this technology despite the numerous NFC-capable devices merchants were flooded with. But, as Millennials emerged it turned out that NFC is really a technology they embrace and, in fact, love. This changed the entire market dynamics, and, now, ApplePay is combining the NFC concept and technology with the concept of integrating the plastic card in an electronic form into the smartphone itself. We will hear more about this in the coming years, ApplePay is spreading fast in the USA, and it is soon to be introduced in London.

1.3. Lowered barrier for entry

Previously – for most of the 4000 years of its existence – the banking industry was known for having an unprecedentedly high barrier of entry. But, The Six Igniting Trends changed the landscape. They led to internal innovations but also led to a substantially lowered barrier for entry, which resulted in intense external innovation and a historically unprecedented chance for new entrants. Some FinTech enthusiasts often talk about 'creative destruction', disruption or even destroying the existing financial institutions. We at Banking Reports have a different view. We think that FinTech and FinServ will be primarily supplementing and not replacing each other – that a coexistence of the two will emerge. Competition and cooperation will be mutually present between the two spheres of the same globe.

1.4. The birth of the FinTech community

The FinTech Revolution: The lowered barrier for entry (made possible by The Six Igniting Trends) set the landscape for the FinTech Revolution, for the emergence of hundreds and hundreds of small companies all trying to challenge the status quo by employing much better technology than brick and mortar banks. And, indeed, now there is a revolution going on: The FinTech Revolution. No question about that.

But when did it all start? January, 2011: TransferWise, the flagship of FinTech companies (find more information on TransferWise in Chapter 4) was established by Taavet Hinrikus[5] and Kristo Kaarmann. There could be endless debate about the true starting date of the FinTech Revolution, but at Banking Reports we look at this as the starting point.

FinTech as a movement: Ever since the birth of the FinTech community, there has been a sense of movement – a movement with its own terminologies that sharply differ from those of traditional banking. Let's look at some of these expressions[6]:

- **FinTech Ecosystem:** This term refers to the intertwined network of venture capitalists, founders, managers, consultants, competitors, and fellow FinTech entrepreneurs. It also refers to the network of innovation that surrounds FinTech-startups.
- **Incubators / Accelerators / Labs:** These terms refer to the physical places that host FinTech startups. These places provide an office and other physical, as well as immaterial, infrastructure for FinTech companies, their owners, employees and other

[5] Taavet Hinrikus was the first employee of Skype, and his extensive experience at Skype was a driving force behind his brilliance in forming and running TransferWise.

[6] Beyond the listed ones, there are hundreds of clearly typical expressions, like digital-natives and digital-nomads and many others, often used in the FinTech arena.

stakeholders. It often comes with extensive consulting and mentoring as well as numerous networking opportunities.

- **GenY:** This term refers to Millennials. The generation becoming adults in the new millennium. ‘Generation Y’. The generation following ‘Generation X’.

Double-Identity: FinTech companies have a double identity. They usually want to behave as a technology company, but since they are de facto in the finance industry, they have to incline more and more as they grow towards behaving like a real finance company. But how to behave like a traditional bank when FinTech companies have C-level posts such as the Chief IoT Officer (Chief Internet of Things Officer)? This double identity is a challenge for the FinTech community, and it is something that management has to directly and consciously address.

1.5. The future of FinTech

David against Goliath: The majority of the FinTech community is convinced that, as a result of the ongoing revolution, brick and mortar banks will essentially disappear. We at Banking Reports think differently: we are certain that the new status quo will be a state of productive coexistence. We understand that FinTech entrepreneurs often conceive their position as David against Goliath, but we think that it is rather a classic competitive-cooperative coexistence situation.

From Bricks to Clicks: Will branches disappear? We think branches are to remain here with us. But, most prominent members of the FinTech community think differently. In fact, the consensus in the FinTech community is that branches are to disappear soon[7].

Some of our arguments: As opposed to the majority of the FinTech community, we think that banks and branches are here to stay. Some of our arguments:

- **The Internet-bank Analogy:** When internet banking was new, the same bon-mot ‘From Bricks to Clicks’ emerged and accounted for a huge follower camp. We were just as skeptic as we are now. In fact, since the emergence of internet banking, banks have somewhat increased the number of branches globally (though there is a decline experienced at many banks since 2008). But nevertheless: branches are alive and well.

- **FDIC[8] and other deposit insurance schemes[9]:** Customers demand some sort of a government guarantee behind their savings. A guarantee like FDIC provides. (In almost

---

[7] There are two bon-mots in the FinTech community about this: ’Banks are working on figuring out the branch of the future instead of trying to figure out the future of their branches’ and ’The branch of the future is the nonexistent branch.’

[8] Federal Deposit Insurance Corporation.

all countries, FDIC has an equivalent.) FinTech companies usually can't provide this shield of protection.[10]

- **Capital:** Banking is an incredibly capital intensive business. Venture capitalists are happy to provide a couple of tens of millions of USD funding to a tech startup. But, will there be anyone risking capital of the magnitude of billions of USD just to fund a FinTech startup so that it can match major banks in many transactions?

- **Corporate banking:** Some members of the FinTech community often forget about corporate banking. Large global or multinational corporations seek tens of billions of USDs of funding in some transactions and deposit often huge sums of 'cash' (e.g. Apple's 'cash' savings in bank near USD 200 billion as of now). Can FinTech startups take these large corporate clients? If not, that means a large chunk of the business, in terms of transaction, savings and loans volume, will remain with the 'traditional' banks.

- **The higher echelon of clients:** Private banking, HNW[11] banking, UHNW[12] banking, Family Office business. These are all face-to-face, personal-trust-based businesses. Will a smartphone app be able to play the key role here? (http://www.marketresearch.com/land/product.asp?productid=8517761&progid=87128)

- **Investment banking:** It is yet unclear how the FinTech Revolution will affect investment banking. But, we think it is here to stay. No apps can do huge securitization deals, and road-shows are essential elements of an IPO – just to mention two aspects of the business.

- **Banking is a business of scale:** The very existence of the FinTech concept proves how IT intensive business finance has become. But, since IT investments are sharply regressive, the bigger an institution is the less it spends on IT in terms of total revenue. And, there are numerous economies of scale in banking.

- **Acquisition as a tool of last resort:** Chances of a FinTech company all of the sudden growing so big that no major bank can acquire it is near zero.

---

[9] For example, FSCS in the UK which stands for Financial Services Compensation Scheme.

[10] Many FinTech enthusiasts argue though that FinTech companies can provide services with 'real' financial companies in the background. This is sort of a white label service from the side of the financial companies. FinTech companies think they can keep better contact with the customers: they can give them better service, and they can acquire in a better way. This is why they think that this white-label model makes sense.

[11] High Net Worth individuals

[12] Ultra High Net Worth individuals

- **License advantages:** Currently there are cca 25,000 full license banks in the world. Holding a full license (in other words a charter) has some reputational and legal advantages (among many very heavy disadvantages – talked about earlier). Although the disadvantages of being actually a 'bank' nowadays outweigh the advantages. But, let's not dismiss these advantages!

1.6. The future of in-bank innovation

Upward shift in the intensity of in-bank innovations: As discussed earlier we think that traditional banks are here to stay. But, they are to do much more innovations than they used to in the pre-crisis era.

New units in old banks: Strategy and Innovation, Technology and Operations units and departments, Innovation Committees and other dedicated organizational elements are created across the banking industry to incorporate emerging technologies. Where is the right place of innovation in the organization of a bank? This is something that banks and consultants are still heavily working on. Innovative preconditions are often not given in the ultra-orthodox and conservative corporate culture of banks. It is yet to develop bank-management practices that nourish innovation.

New jobs: Along with business analysts, banks are now actually hiring engineers and designers in almost the same quantity.

New terminology: Some experts joke around with actually writing a FinTech dictionary for bankers that 'translates' banking jargon to the much more colloquial but much more colorful, informal and technologically up-to-date FinTech language.

Legacy systems: Banks have professional, but often painfully outdated, IT systems. Almost all banks struggle with legacy systems. We usually use an analogy here referring to the aviation industry where analysis shows that the single most powerful cost-cutting advantage of low-cost airlines, as opposed to the more established ones, is the lack of legacy IT-systems.

Our advice to brick and mortar banks: We at Banking Reports have an extensive array of tools and content to pass on to banking leaders on grabbing innovation the right way. We just mention two small pieces here:

- **The Toyota Method of Innovation:** At Toyota every employee has two jobs. One is his/her normal job. The other is the innovation of that exact job.

- **Overall strategy is the key:** Executives across industries often forget to look at their compass and see: every single step has to be derived from the overall strategy. There is no such thing as innovation in itself. There is only 'the right kind of innovation serving our overall strategy'.

2. The Main Purposes of Banking Innovations:

We now see that banks and FinTech companies are the two main sources of banking innovations. But why do they innovate to begin with? What drives innovation? In most every case business profit is the primary driver. But, through what indirect mechanisms does profit-creation via innovation work? What are the cylinders in this engine? Which purposes can innovation fulfill?

To become more customer centric

- The way banks see this: Banks sense that customers are often dissatisfied. Therefore, they try to come up with innovations that they hope will somehow mend this problem.
- The way FinTech companies see this: FinTech companies think they are the ones to show the way when it comes to customer centricity. The key term they often use is 'user experience' or 'ux[13]' as enthusiasts often say.

To grow, to attract new customers, to increase revenue

- The way banks see this: Since 2008, banks have had difficulties growing their balance sheets. They see innovation as a tool to attract new customers.
- The way FinTech companies see this: For FinTech companies this aspect of innovation is the core one. Their very existence is based on the premise that innovative services attract customers.

To create the ethos of being innovative, building an innovative image

- The way banks see this: Banks see themselves as 'dinosaurs' and they hold the – partially true – belief that clients see them as such. Therefore, large brick and mortar banks are becoming keen on starting projects that are aimed at making them look innovative. Most of these programs have real content, but some lack the depth beyond PR purposes. 2014 was the first year when a number of large international banks raised their dedicated FinTech investments (beyond normal IT and IT-related spending) to over USD 100 million. The FinTech community calls the group of these banks 'The 100 Million Club'[14]. We at Banking Reports have been doing projects to help banks understand what customers mean – and demand – when they look at a financial institution and think of the concept of being innovative.' What makes people think a bank is innovative? Why do people perceive a bank as innovative or as non-innovative?'

---

[13] Or 'cx', which stands for 'customer experience'.

[14] Much more information on this topic is available by listening to dedicated episodes of the *Breaking Banks* international FinTech radio show.

- The way FinTech companies see this: In a paradox way, FinTech companies are much more ambivalent about wanting to look innovative than large banks. Why is this, what is the rationale behind what we call ’The Dinosaur Paradox’? On one side: bankers in large banks see how much their legacy systems hurt them every day; they are paralyzed by lack of flexibility on all levels of the organization. This gives a high degree of dinosaur-feeling to them, which they try to overcome day by day. On the other side: FinTech companies have difficulty painting a picture of themselves as something that will be here for long, something that is worth for customers to invest time into learning about, cooperating with. So ’The Dinosaur Paradox’ is that FinTech companies like to compare themselves to banks and say that they are doing something very similar, they are just less expensive, quicker or more customer centric. The paradox is that they in fact want to be – a little bit – like the dinosaurs. And it does not disappear as they grow! In fact our qualitative research shows that as FinTech companies grow, they compare themselves less and less to their fellow FinTech competitors and more and more to brick and mortar banks.

To pilot, test, experiment, create prototypes

- The way banks see this: Banks are traditionally super-conservative, and they have little – if any – space in their organizational structure to experiment. FinTech gives them a way to get around that.

- The way FinTech companies see this: The existence of FinTech startups is a test and experiment in itself. There are two major questions about this: (i) To what extent will they be quickly substituted by even newer FinTech companies doing the same thing better, by learning from prior mistakes? (ii) To what extent will these startups be able – and to what extent is this right - to keep their entrepreneurial spirit, their ability to take on experimental risk as they grow?

To reduce churn (to increase loyalty)

- The way banks see this: Banks are ambivalent about this. They think that innovations can be the exact thing that scares well established clients away. They got used to the existing status quo; they chose the given bank amidst the existing status quo. Will they not be scared away by all those new things? On the other hand, these banks see that a certain segment of their customers choose more innovative services. This ambivalence and these uncertainties often paralyze banks in taking substantial innovative initiatives.

- The way FinTech companies see this: This is a key driver in FinTech innovation. To be always ahead of the curve, to be better than the existing banks and to be better than the fellow FinTech competitors. Research, however, shows that clients trying one FinTech service are inclined to try a competitor as well. The mechanism behind this is that in case they are satisfied with the new solution they will be curious how it works at other FinTech companies, and, in case they are dissatisfied, they will think that it is not the type of service but probably the specific company that dissatisfied them.

To cut costs, to raise productivity, to make processes more efficient

- The way banks see this: Since 2008 major international banks have tried to go through a major cycle of cost-cutting. They have realized that innovation is a primary tool to reach a sustainably lower cost-level. In fact, there are many 'win and lose[15]' type of cost-cutting actions. But, innovation is a 'win and win[16]' type of cost-cutting framework.

- The way FinTech companies see this: FinTech companies have little to do with cost-cutting. Their cost structure greatly differs from the cost-structure of brick and mortar banks. The greatest difference is not in the ratio of certain cost-elements, but in the list of costs in itself: FinTech startups have very few cost items compared to brick and mortar banks. This great difference in the cost-structure is a "natural cost-cutting" in itself, no more "synthetic cost cutting" programs are needed.

To differentiate, to make a more unique value proposition, to become more competitive

- The way banks see this: We often hear among bankers the proverb: "Banking is a commodity". Banking Reports see a trend in banks trying to differentiate themselves from fellow banks. This differentiation is a hard issue to handle since it is partially a positioning task, and positioning is a strategic question. Strategic thinking in the banking sector, in much of the last seven years (since 2008), have been preoccupied by survival and NPL issues, regulations, reducing risks and matching new regulatory and legal requirements. All in all, for brick and mortar banks, coming up with innovative products and services is a great opportunity to objectively differentiate themselves from competitors. However, it only can work if it is strongly backed by a positioning that is originating from strategy in the board room. A great example of this synergy of differentiating by innovation is Tatra Banka in Slovakia. It is a little-known bank on a global scene, but worth learning from.

- The way FinTech companies see this: FinTech companies are differentiated from the existing status quo. But, in fact, qualitative research by Banking Reports points out serious problems and substantial opportunities here. Our research shows that FinTech companies are suffering from a 'Double-Differentiation Disorder'. This means that, on one hand, they try to differentiate themselves from the brick and mortar banks, but, on the other hand,

---

[15] 'Win and lose' means in this sense that costs are lowered (win), but revenues may also go down (lose). A great example to a 'win and lose' type of cost cutting action is laying off people from the Call-Center. Cost will be saved by paying less total salary to the Call-Center team, but revenues will be lost, because wannabe clients will have to wait longer in line to contact an operator.

[16] 'Win and win' stands for winning by cutting costs and winning by raising (or keeping on even) revenues.

they try to differentiate themselves from the fellow FinTech competitors. However, potential clients (especially the earlier described Millennials) are not looking for differentiated financial services providers, but financial service providers that are ‘like’ other ‘cool’ companies. They want to open a bank account as easily as buying a plane-ticket or see their card spending as clearly as they see performance data in a computer game. So, while FinTech companies are working on differentiating themselves from other financial services providers, (old and new) clients are rather searching for analogies with ‘good’ companies. Understanding this – we think – provides a tremendous opportunity for FinTech companies.

Other purposes

To follow suit, to fit into the trend, to hedge competitive differences, to satisfy share-holders, to win time on fulfilling supervisory requirements, to simplify banking (it is often thought by experts that by the millennium certain aspects of banking and some exotic financial products have become too complicated and simplification is needed)[17] etc.

[17] FinTech people often make the statement that old school banks are analog while modern banking is digital.

3. USA:

How the USA banking innovation market differs from other continents?

The Leader in FinTech: The USA is the global center and the most aggressive and successful player in banking innovations.

In-bank Innovation is Behind: Large USA banks are somewhat behind some of their international competitors, but in 2014 they have realized their situation. 2015 is expected to become the year when they really 'start their engines'.

Dual Geographic Poles: The USA has two geographic focus-points of FinTech innovations: New-York and the Silicon Valley.

International Acquisitions: The USA is the global leader in providing funding for FinTech startups and is increasingly becoming an acquirer of successful FinTech initiatives from around the world.

ApplePay: The USA has a very special attribute in the global FinTech Revolution. It is the only player that can bring global non-financial companies to the forefront of financial innovations. A great example is ApplePay by Apple, and Google is also known for some upcoming major innovations in the financial arena. PayPal – currently owned by E-Bay – is also expected to bring new competitive power to the table soon, probably after a spinoff.

Old School Banking: Despite the USA being the frontrunner, there is an exciting 'old school' banking phenomena also present: 2/3 of all the checks in the world are written in the US, an interbank wire transfer normally takes three business days[18].

[18] While in Europe most wire transfers are intra-day.

A banking innovation from the USA: Moven

The mobile money-management tool that is designed for Millennials, but loved by many more! Moven in our definition is a Neo-Bank. It was started up by Mr. Brett King and Mr. Alex Sion in April 2011 in NYC. It has since received cca USD 12 million in several rounds of funding.

- **Why Moven?** We could have looked at ApplePay, PayPal or a number of really well-known banking innovations from the USA. But, we wanted to look at Moven because we see something in Moven that we think is idiosyncratically fulfilled only by FinTech companies. We think that Moven has an atmosphere that is fundamentally different from the last 4000 years of banking. Youth instead of wealth, future instead of present, hidden beauty instead of hidden costs, creativity in user experience instead of creativity in hiding tensions, customer centricity instead of customer-acquisition-centricity, friendliness instead of institutional attitude, cooperative attitude instead of narcissistic power-play, openness towards learning instead of openness towards conservatism, thinkers instead of bankers, embracing innovation instead of fearing it. Here we want to put a clear disclaimer: Banking Reports clearly believes in banking and bankers, but the way we see the future is that brick and mortar banks will have to change their corporate culture and value proposition significantly. They will have to become much more like Moven. This will require at least a partial change of paradigm, and Moven mirrors this new paradigm so clearly and integrally that we think it is the icon of the future of banking.
- **The 10 most important features Moven provides:**

1. A smart-phone app tracking the customer's money. This app has six remarkable features:

   (1) A Spending Meter: A beautiful and smart visualization of personal financial spending-capacity.

   (2) Instant Receipt: An instant dataflow after each dollar spent giving the customer feedback and an info-dashboard on what happened.

   (3) Automatic Categorization: Moven categorizes spending items automatically.

   (4) Smart Transfer with social-media integration: Moven app provides the capability to transfer money to friends through phone number, email address or Facebook profile.

   (5) Suspend and Unsuspend: Suspend and unsuspend the account in case of card-fraud, lost or stolen card.

   (6) It can be linked up with non-Moven cards and accounts on top of the normal Moven card and account.

2. A Moven debit card, a MasterCard issued by CBW Bank.

3. MasterCard Payment Sticker: Tap to pay with MasterCard's PayPass technology. The client can place the sticker on the back of the smart phone and just wave it in front of an NFC reader to complete a payment that is at the same time administered by the Moven smart app.
4. Account opening directly from the smart-phone.
5. A strategically brilliant attitude and practice of cooperation with the incumbent players. (Besides competition) Most recently, Toronto-Dominion Bank in Canada incorporated the Moven app into its services. Earlier, Moven set up cooperation with Westpac in New Zealand, which is a great success since incumbent banks in Australia and New Zealand are among the best in the world when it comes to innovation. Moven has a partner-strategy: they only works with one partner per market. We are thrilled to see which markets Moven targets next and which banks it will partner with in the coming months.

   (http://www.marketresearch.com/land/product.asp?productid=8412346&progid=87128)
6. Moven accounts are FDIC insured: CBW Bank provides the back-end. This way Moven elegantly overcomes the charter/license and the deposit-insurance issues.
7. Moven has already come up with a "watch bank". It works with Android and Motorola devices and will soon be adjusted to AppleWatch.
8. Moven is strict on being "branchless", part of its philosophy and, therefore, not part of its cost-structure.
9. Moven consciously keeps itself away from checks and other old school banking 'fossils'.
10. Moven has a simple, transparent fee-structure: no monthly fees, no ATM fees. It can maintain this fee-structure since it has a simple cost-structure. (The two are actually the materialization of the same thing inside and outside. Having a simple internal cost-structure is the only way to maintain a simple fee-structure over dynamic times.)

- Among the strengths of Moven we want to emphasize the real-time data input-output and analysis when consumers are spending their money. Instant analysis and instant feedback mechanism is almost addictive. It carries the hallmark of disruptive technologies: if we imagine that it already is the industry standard and everyone is using it, would large groups of people switch from this to the old situation (not having instant analytics of spending)? If the answer is that large group of people would not want to move back that means it is probably going to become wide-spread.
- A major strategic question will be how Moven will relate to ApplePay.
- The budgeting function is a propensity towards preferred card-use; this can help Moven-linked cards to obtain the so-called 'top-of-the-wallet' status. Though 60% of Moven's users link at least two external accounts to their app.

See more: https://moven.com/

4. Europe:

How the European banking innovation market differs from other continents?

London and Others: European FinTech efforts can be divided into two groups: (1) London and (2) the rest of Europe.

Fastest Growing London: London is competing with the USA as the global center of financial innovations. So far, the USA is winning (through being two-legged: NYC and the Valley), nevertheless, London in itself is the hottest spot in global FinTech. There is one more aspect of London that challenges the USA and that is the dynamism of FinTech developments: as of early 2015, the growth-rate of FinTech is higher in the UK than in the USA. London is the second (only after the USA) in terms of providing funding (venture capital) for its FinTech community.

Others Are Behind: The rest of Europe is largely behind. Frankfurt, Paris, Madrid and Amsterdam show some activities but not much. Eastern-Europe is – interestingly – highly inactive except for one country: Estonia. Estonia is highly innovative and surprisingly well integrated into 21st century financial trends.

Forex Transfer: There is one area of FinTech that Europe is ahead of the entire world on: forex. The online foreign exchange transfer services are largely concentrated in Europe, which may be the result of Europe being a fragmented continent with a number of national currencies circulating despite of German efforts to spread the Euro across the continent (which seems to be especially problematic at times when probable Greek exit is likely to start a domino effect of others leaving the Euro-zone.)

A banking innovation from Europe: TransferWise

The peer-to-peer money-transfer service that is quickly conquering the world!

- TransferWise is the leading Online FX Transfer Service. It was started in January 2011 out of frustration[19] by Taavet Hinrikus (a key person at Skype) and Kristo Kaarmann. It has cca 40 competitors globally, but its funding, branding and communication advantages save it from commoditization.
- TransferWise is a very important company in the FinTech landscape. It is the undoubted flagship of the global FinTech revolution – the stereotype of the successful FinTech disruptor in the eyes of thousands of experts, hundreds of thousands of bankers and millions of clients.
- TransferWise has attracted cca USD 100 million venture capital in several rounds of funding. It is the best capitalized Online FX Transfer Service and one of the best capitalized FinTech companies. Richard Branson has been an early investor and a mentor as well as a brand-face of the company. Branson is the number one icon is disrupting hard-to-enter industries through dedicated arms of his Virgin holding. His presence, approval and support of the company have been crucial and highly beneficial. Branson's authoritative presence as the global icon of disruption, combined with Hinrikus' success as a key creator of Skype, is a double brand-support structure hard to parallel.
- TransferWise is beating many of its competitors on compliance and procedural advantages. The company is trying to keep its administrative processes as simple as possible. Some experts think that there is a certain amount of calculated risk-taking behind this.
- Banking Reports has been researching the global Online FX Transfer Service landscape thoroughly and has found the processes of TransferWise the most customer-friendly in the entire industry.

---

[19] This is a direct quote from TansferWise website: „Taavet Hinrikus and Kristo Käärmann are two friends who believe that money is meant to flow freely. But in the absence of a global currency, it doesn't. An epiphany saved them thousands of pounds.
Taavet had worked for Skype in Estonia, so was paid in euros, but lived in London. Kristo worked in London, but had a mortgage in euros back in Estonia. They devised a simple scheme. Each month the pair checked that day's mid-market rate on Reuters to find a fair exchange rate. Kristo put pounds into Taavet's UK bank account, and Taavet topped up his friend's euro account with euros. Both got the currency they needed, and neither paid a cent in hidden bank fees.
'There must be others like us,' the epiphany went.
And the rest is TransferWise."

- There are a number of extra things that TransferWise offers, but only a few competitors can match up: Website-embedded pay-links, Call-Center and a very smart and aggressive referral program and welcome-gifts. We think that many competitors are better though on loyalty enhancement.
- TransferWise is a genius at utilizing a vast array of marketing tools. They use testimonials in an exemplary way and are very smart in finding ways to communicate their size: they try to show potential clients that they are the largest because they are the best, and since they are large, they are trustworthy. Size-given advantages are communicated so perfectly that TransferWise is becoming the de facto standard of transferring money cross-border.
- FinTech companies often suffer the so-called 'Comparison Ambivalence'. This means that they themselves are confused in finding the way to compare their services to brick and mortar banks as well as to other FinTech companies. This double reference of comparison is tough to handle. TransferWise has a very conscious strategy to tackle this: they only compare themselves to the brick and mortar banks, and they claim that they are cca 90 percent cheaper. They have such a strong brand compared to other Online FX Transfer Services that they can afford not to compare themselves to those.
- We think that TransferWise has a tremendous potential growth story that can be enhanced by tactics like the introduction of supplementary services such as cards (they are already doing this but much more can be done in a much better way).
- The strategic narrative of TransferWise will be defining for the entire industry. Experts are guessing what the story will be leaning towards the future: will they IPO; will they be acquired by a bank; will banks take minority or majority ownership; will they acquire other Online FX Transfer Services or grow organically; how and where will authorities become more focused on their supervision; how large can it grow; will banks eventually lower their prices; and, when will all of this happen? Hundreds of key questions are waiting to be answered.
- There are some strategic competitive challenges ahead of TransferWise beyond their direct competitors in the Online FX Transfer Services arena and their competitive reference points of brick and mortar banks: BitCoin, PayPal, Western Union, and Moneygram.
- Banking Reports recently published the 'Overview of Online FX Transfer Services: Competitive Overview, Best Practices, Opportunities and Trends in the World of Foreign Exchange Transfer Services Providers' report. This is the best in-depth analysis (70 pages) available globally about this market.

See more: https://transferwise.com/

5. Asia:

How the Asian banking innovation market differs from other continents?

Four Engines: Asia has four major engines of FinTech innovation: Singapore, Hong-Kong, Japan and China. However, innovations by Japan and China[20] are usually not catching traction – nor are meant to do so – on a global scale. Singapore and Honk-Kong are truly global players in FinTech but are relatively small and so far somewhat behind compared to London, NYC and the Valley.
South Korea to Join: The 2015 newcomer in Asian FinTech will be South Korea. The South Korean authorities have recently pointed out FinTech as one of the most important areas of focus and are working on special regulations that differ for established banks versus FinTech companies.
Bali is the Best Kept Secret: There is also a 'best-kept-secret' location full of FinTech initiatives in Asia, the island of Bali in Indonesia. The Bali FinTech community started with BitCoin enthusiasts moving to Bali in significant numbers. But, it continued with other types of FinTech ideas. Beyond a significant BitCoin ecosystem, the Bali FinTech community is working on setting up fully licensed banks. Bali is so far in many senses from the incumbent global monetary system that this disconnectedness and distance – FinTech people say – helps think outside the box and beyond established paradigms[21].
DBS Bank is the Best Practice: When it comes to brick and mortar banks, we have to point out DBS Bank, the largest Singaporean bank[22] often noted by international experts as the most innovative bank in the world. What our research experience shows is that DBS in not only innovative on the outside, but also very innovative (probably even more so) inside, in its internal processes. This is remarkable since there is a lot going on discussing external 'symptoms' of innovation, but there is very little internationally available information on what banks are doing with their internal processes and back-office solutions. Based on information we have, DBS is certainly one of the bests (if not the best) on innovating internal systems.

[20] China is still restricting international capital flows and not really letting the Renminbi to float freely against other currencies.

[21] There is a bon-mot among Bali FinTech people: 'The greatest advantage of Indonesia is that anything is possible. And the greatest disadvantage of Indonesia is that anything is possible.'

[22] In fact, it's the largest bank in South East Asia by assets.

A banking innovation from Asia: Money Forward

A brilliant idea that connects 1700 Japanese financial services providers to enable the customer to view all finances on one dashboard.

- MoneyForward is a Japanese integrated personal finance solution.
- MoneyForward is truly genius, but its communication is very modest. It communicates according to the 'promise less, deliver more' principal.
- It has cooperation contract and IT integration with 1700 finance-related service providers, and MoneyForward users see their personal finances from all these partners on a fully-integrated dashboard automatically, without any manual data-entry.
- Card accounts, bank accounts, loyalty cards, mileage cards, utility bills, medical billings, insurance billings, phone bills, phone-enhanced purchases, forex, equity and debt trading, investments, savings, credits, loans and mortgages, travel-related costs accounted electronically and many other electronically available finance-related things are visible on the integrated dashboard. This saves tremendous time when an overview or analysis is needed.
- A shortcoming of MoneyTransfer is that it is absolutely Japan-focused. Its website is exclusively available in Japanese, and all 1700 integrated partners are in Japan.
- MoneyForward is optimized for tablet and smart-phone.
- Yosuke Tsuji started MoneyForward in 2012 in Tokyo, Japan. Since then, it has received cca USD 18 million capital and has won numerous awards: 2014 Good Design Award, Number 1 AppStore, Number 1 Google Play, and others.
- The most intense competitor of MoneyForward is freee.
- MoneyForward has a secondary service: a version for MSMEs (Micro Small and Midsize companies) and corporate clients. But, in the future, they will focus more on this because it brings revenue in an easier way. Currently it already brings half of the revenue.
- MoneyForward has nearly two million users.
- It has a strategic alliance with Yahoo Japan.
- They are working on an online payment solution to be integrated into the product.

See more: https://moneyforward.com/

6. Africa:

How the African banking innovation market differs from other continents?

A Topic Bill Gates Pays Much Attention to: Africa is the home of mobile banking. Mobile banking – as it is currently applied in Africa – has the potential to spread globally.

In Africa there are two interdependent, but mutually strong and significant, trends going on:

(1) The Rise of the New African Middle-Class: As many experts point out, the next 15 years are going to be the "Decade of the African Middle-Class". As, for example, George Soros – the famous stock-market guru – pointed out, there is already an unprecedentedly dynamic growth of middle-class in Africa. This new middle-class is coming from an unbanked background and is quickly becoming banked. The number of new banking relationships formed in Africa (not counting the mobile banking relationships) is 30 – 50 million annually. Africa is really the frontier for bringing the unbanked, the underbanked and the new-to-banking populations on board.

(2) The Mobile Banking Revolution: The Mobile Banking Revolution is unique in its nature among FinTech trends. Its uniqueness comes from the fact that it started before the financial crisis of 2008. M-Pesa, the undoubted flagship of the Mobile Banking Revolution was set up in 2007. Over 50 percent of the African population lives in areas not reachable by branch-banking: no roads, no electricity, no security, and no infrastructure. But, even most of these people own a cell-phone (often not a smart-phone, but a non-smart mobile device). What if you can have a bank account on your phone? What if your account number is your phone number? What if you can send money to anyone else with a mobile device by sending a PIN secured SMS text message? What if you can – logically – buy and sell goods and services this way? Undoubtedly genius… this is exactly what M-Pesa does!

A banking innovation from Africa: M-Pesa

The mobile money transfer solution that has transformed societies in Africa and is now conquering other continents!

- Started by Vodafone in 2007[23] in Kenya and Tanzania, M-Pesa has cca 30 million users worldwide. This is a perfect tool for the unbanked and underbanked. M-Pesa's geographic spread is fast, but so far it is mostly present in its countries of origin: Kenya and Tanzania. But it's gaining traction in India, Afghanistan, South Africa, Lesotho, Egypt, Mozambique and Romania. What determines where M-Pesa (or similar services) gets traction: regulation is the deciding factor. Emerging and frontier markets need a regulation that allows these mobile banking services to operate.
- Bill Gates wrote in his 2015 Annual Note that "Mobile banking will help the poor transform their lives."
- Total global population is 7.2 billion people. Out of this 2.2 billion are under 18 years of age, while the number of adults is cca 5.0 billion. Out of the 5 billion adults, only 2.5 billion have a bank account. The other 2.5 billion adults are unbanked, meaning the global average banking penetration rate is only cca 50 percent. Meanwhile cca 90 percent of the 5 billion adults use at least one mobile phone.
- M-Pesa does have some stiff competition in other countries. An example is the company bKash, which is the Bangladeshi version of M-Pesa. They have the same concept but have a bank (BRAC Bank) as the majority owner. The company (bKash) is showing exponential growth, and it is considered by experts and investors a huge success. The Philippine market's key mobile wallet player is GCash. GCash is owned by a telecommunication company.
- There are six major types of transactions that M-Peas supports[24]:

  (1) Deposit: ID card or passport at agents[25].

  (2) Withdrawal: ID card or passport at agents.

  (3) Transferring money, making payments to users and non-users, paying bills, sending remittances, repaying microloans: phone via PIN secured SMS text messages.

  (4) Receiving funds, receiving microloans: phone.

  (5) Purchase of goods and services: phone via PIN secured SMS text messages.

  (6) Purchase of airtime: phone via PIN secured SMS text messages.

---

[23] Piloting began in 2005. Before that clients in Africa were spontaneously using airtime as a means of exchange, payment and store of value.

[24] Cost range is between 10 to 100 basis points per transaction.

[25] Airtime resellers, retail outlets, etc.

- Equity Bank launched M-KESHO, a product using M-PESA's platform and agent-network, offering expanded banking services like interest-bearing accounts, loans, and insurance.
- Kenya is one of the two original markets (Kenya and Tanzania) of M-Pesa. Building on the success of M-Pesa, Kenya is called 'The Silicon Valley of Financial Innovation in Africa'.
- M-Pesa, as a brand, has proven to be self explanatory. However, giving it a suitable and stable category-name seems to be a problem. Mobile banking, mobile money, mobile money provider, mobile payments provider, mobile wallet, mobile phone-based money transfer service, branchless banking service, microfinance provider and even digital currency are among the categories trying to describe M-Pesa. We like the expression 'mobile banking[26]' the best, and we find 'digital currency' to be a clearly misleading category to describe M-Pesa.
- Taking a deeper look at the category of 'mobile banking'. We think that this is probably the best category-name to describe M-Pesa. But this category can be divided into four distinct sub-categories along two dimensions:
  - Dimension 1: It only runs on a smart phone (e.g. via an app) or it works on non-smart phones as well. (M-Pesa runs on both smart and non-smart phones.)
  - Dimension 2: It is owned, managed, funded and supervised by a bank or a telecom company. (M-Pesa is a telecom-owned mobile banking service provider. The owner is Vodafone.)
- There are far reaching social and socio-economic consequences of mobile banking in the emerging and frontier markets. We want to emphasize one here: Significant crime reduction is registered in countries well-penetrated by this service. Media is often worried about digital solutions, but facts show that it increases security and reduces corruption, crimes and violence. When we talk about the far reaching social consequences we have to mention one more thing beyond crime-reduction: Electricity. There are trends in mobile banking-penetrated African countries of providing electricity through solar panels to families paying for the panels in tiny installments through their mobile-phone. Otherwise, there was no way to pay for electricity in areas really lacking infrastructure. This opened up a beautiful and socially thriving acceleration in the spread of electricity to families using mobile banking. We think that these trends are beneficial for humanity.

See more: http://www.safaricom.co.ke/personal/m-pesa

[26] Bill Gates also prefers this expression describing M-Pesa.

7. Australia:

How the Australian banking innovation market differs from other continents?

Global Capital of In-Bank Innovation: Australia is certainly the global capital for in-bank innovations. Unlike in many other parts of the world, in Australia the large brick and mortar banks are considered highly innovative. Three of the four largest Australian banks are among the 50 most innovative companies of the continent. The Commonwealth Bank of Australia is considered to be the second most innovative company in Australia. Westpack is also in the first ten, while National Australia Bank is 14th, and ANZ bank is just slightly off the list of the top 50.[27] What is also very significant about this is that all four gained their great positions in the last 10 years.

'Innovation-Tours': The innovative nature of Australian banks is so appreciated that international consulting companies are organizing 'Innovation-Tours' for foreign experts to visit them.

Competition Drives Innovation: The Australian banking market is highly competitive and clearly, transparently and smartly regulated. These are certainly among the reasons that drive Australian in-bank innovations. But, all in all, we – and other experts around the world – are still researching why the Australian banking sector stands out so much in a positive sense.

FinTech and In-Bank Coexist: Australian in-bank innovations deserve a separate study. The following Australian FinTech innovation shows that, even in a very highly innovative, super-competitive banking environment, there is space for external FinTech to flourish.

[27] Results are based on the 2013 Business Review Weekly survey.

A banking innovation from Australia: Nimble

Apply for a loan from your smart phone and receive the money on your account within 60 minutes!

- Nimble's mission tells it all: "To delight people by making borrowing simple, fast and stress-free."
- Nimble issues loans of USD 100 to USD 1200 to private individuals within 60 minutes of application. The application process is perfectly paper-free.
- Nimble was started in 2005 (by Greg Ellis and Sean Teahan), well before the 2008 crisis that ignited most of the FinTech startups we know today.
- Applicants become Nimble Members, meaning after their first loan is repaid they can re-apply in a much more simple way. But, even the first applications are very simple. The average application time for an inaugural Nimble loan is 5 minutes and 44 seconds.
- Nimble issues the 'Nimble VISA Prepaid Card'.
- Nimble is quick, paperless, simple and charming, but it is expensive. There are two fees: (1) Establishment Fee: 20 percent of the capital. (2) Interest: 4 percent per month of the principal. This is a simple cost-structure, and, in spite of being a very expensive loan, we see a nice thing in that interest is not charged on the total outstanding amount (principal + interest) but only on the principal. There is no reverse annuity calculation.
- Nimble has approved cca 775000 loans since 2005.
- Nimble has a good slogan: "Smart little loans", and a good logo which is iconic and un-bank-like.
- In spite of some critics saying that Nimble is just another pay-day-loan provider, Nimble pays large marketing, brand-building and positioning attention to lovability.
- Nimble got to the scale during the years that they were running TV commercials.
- Nimble has a close cooperation with Commonwealth Bank, but no ownership is taken in Nimble by the bank.
- Under-promise, over-deliver: Nimble promises that they put the money in the applicant's account within 60 minutes of approval. But, they publish every day the average payment time, and it's often less than 12 minutes.
- What we find a problem is that Nimble does not renew loans by rolling them over or by refinancing them.

See more: https://nimble.com.au/

8. Global Banking Innovation Initiatives:

The Citi Innovation Lab in Singapore and other innovation centers run by global banks.

Large global banks have started to spend a very significant amount of money on FinTech, and 2015 will be a breakthrough year. Currently, there are five major global banks that invested over USD 100 million in FinTech projects (not their regular IT spending). We think that another 10 large banks will join the '100 Million Club' this year.

1. Innovation Labs: Large banks like to set up Innovation Labs.

- **Citi Innovation Lab:** A client experience and collaboration center.
- **Commonwealth Bank Innovation Lab:** Idea incubator and accelerator.
- **BBVA Innovation Center:** From ideas to prototypes and from prototypes to tests.
- **Capital One Bank Lab:** To behave as a technology company rather than a bank.
- **ING Customer Experience Center:** Modeling of consumer behavior related to innovations.

2. Dedicated FinTech Venture Capital Arms: Global banks tend to set up dedicated FinTech venture capital arms or they focus their general venture capital activity more and more on FinTech.

- **AmEx Ventures:** AmEx's strategic investment group to enhance core capabilities.
- **Citi Ventures:** To cooperate with ventures that have the potential to disrupt the financial industry.
- **BBVA Ventures:** Strategic opportunities that can support the bank's innovation agenda.
- **SBT Venture Capital:** FinTech VC fund investing in the most promising growth stage companies.

3. Communication on banking innovation is becoming global: The *Breaking Banks* Radio program!

The *Breaking Banks* Radio Show, hosted by Mr. Brett King, was launched in May 2013. There is immense demand for this show among bankers and the FinTech community. The show features banking innovations and interviews experts about trends, products, services and companies from a FinTech point of view. The audience is near 100,000 people, cca 50 percent from the USA and 50 percent from the rest of the world.

See more: http://www.citigroup.com/citi/citiforcities/home_articles/n_singapore.htm

9. Innovation versus Regulation:

Complexity: The Five Key Aspects of Innovation-Regulation

The general perspective in the FinTech community is that the heavy over-regulation of banks is a significant advantage for FinTech startups. We agree with this assessment, but the picture is more complex. We will shine the light on The Five Key Aspects of the Complexity of Innovation-Regulation.

First Key Aspect of Complexity: The Regulation Paradox

The Regulation Paradox is the strange phenomenon that some FinTech companies are actively seeking more regulation. This opposes the general concept of: 'less regulation is better', therefore, it is easier for the under regulated FinTech community than for the over-regulated FinServ companies. This theory of advantage derived from under regulation is called the 'Regulatory Arbitrage Theory'. Arbitrage is the equivalent of profit without risk or overly high profit compared to the level of risk taken.

We at Banking Reports think that both the 'Regulatory Arbitrage Theory' and the 'Regulation Paradox' are true. Some snapshots of why we think the 'Regulation Paradox' (so in fact more regulation to the FinTech community) is true:

- The outcry of the BitCoin community for more regulation is increasing. Many prominent members of the BitCoin community think that more regulation is needed to restore the confidence in BitCoin and enhance its growth.

- External regulatory and audit expectations, in fact, enhance and catalyze internal regulations and audit capabilities, meaning more external regulation makes FinTech companies ceteris paribus internally, and overall, safer. (This is not necessarily true to organizations that already have a developed internal regulatory and audit system. For the already mature players, much of the external regulation may be repetitive and costly.)

- One of the difficulties is that FinTech companies are usually outside of the deposit insurance schemes (FDIC in the USA, FSCS in the UK, etc.). This causes some distrust towards them in case any money for any (short) instance is stored, held, handled, owned, transferred or exchanged by them. But, becoming part of a deposit insurance scheme brings regulatory requirements and costs with itself.

- FinTech companies are not fully licensed banks. A full banking license is a huge prestige, but, of course, a costly burden as well. There are the so called Neo-Banks that are FinTech companies either holding their own license or very closely cooperating with a fully chartered FinServ company. One of the most exciting things we keep our eyes on is the story of the US/UK based company: Standard Treasury. Standard Treasury is currently applying to become an independent UK bank and is working with the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA) to become an authorized bank.

All in all, our conclusion is that the lack of regulation is not a panacea, regulations and deregulations both carry significant opportunities and advantages as well as disadvantages.

Second Key Aspect of Complexity: The Dynamism of the Situation

The regulatory environment is not status quo. Changes have been especially dynamic and sometimes dramatic since 2008. These are the main vectors of change:

A Deregulation Wave of Brick and Mortar Banks: We think that a moderate deregulation of large banks strangled by overregulation is in the foresight. Let’s take the example of the USA: Now that both Houses of the Congress are Republican, there is already a significant movement behind trying to eliminate parts of Dodd-Frank.

Regulatory Convergence: On one hand, we see the regulation of brick and mortar banks taking a shy U-turn, moving now towards moderate deregulation, while, on the other hand, there is significant regulatory commitment to address BitCoin regulation and the regulation of Crowdfunding. So, the two functions (tight banking regulations easing and deficient FinTech regulations tightening) are probably approaching the same limit but from opposite directions. This is what we call ‘Regulatory Convergence’.

Consideration of the Split Regulation Model: Some countries and jurisdictions are moving towards a so called ‘Split Regulation Model’. South Korea is the best example, recently putting FinTech on its flag. They have communicated that the South Korean FinTech community has to be strengthened and enhanced, and they think that special, dedicated regulation is one of the tools to achieve this. The definition of the ‘Split Regulation Model’ is when regulation for FinTech companies vs brick and mortar banks significantly and consciously differs.

A Supplement to ‘The Regulatory-Arbitrage Theory’: The incumbent financial community has a strong lobby power, while the FinTech community has virtually no lobby power. This difference in the abilities to affect regulations may justify permanently lower regulations for the FinTech community.

Third Key Aspect of Complexity: The Comprehension-Gaps

There is a dual comprehension-gap when it comes to risks, regulations and compliance. It is dual, because there is a lack of self-comprehension (from the part of the FinTech community towards their own risks, regulations and compliance) and a lack of regulatory comprehension (towards the risks, regulations and compliance issues affecting the FinTech community).

The Lack of Self-Comprehension: FinTech companies don't have the administrative and legal apparatus to handle many complex rules. Even if we take a look at a very simple FinTech company, we find ourselves in a complex matrix of risk-management and compliance needs: different jurisdictions of registration versus different jurisdictions of operation, the geographic compositions of clientele versus client and service groups. This adds up to be a complex regulation-matrix that is impossible to fully comprehend and handle with limited resources. Therefore, we see significant differences between FinTech companies doing the same thing in their approaches towards specific compliance, risk and regulatory issues. TransferWise and CurrencyFair are doing pretty much the same, but CurrencyFair – according to our research – is following more rigorous rules. FinTech companies are taking on calculated risks in this arena by not being able to (nor probably willing to) fully comply with all possible requirements.

The Lack of Regulatory Comprehension: To what extent do the authorities understand cutting edge FinTech? Do they have the right organizational culture and knowledge, skills, capabilities, traditions, task forces, expertise and commitment to become capable of understanding these processes, technologies and their risk, compliance and regulatory implications? And if yes, do they have the capability to follow this fast moving target? Besides their core competence of regulating well-established financial institutions, the authorities have an obligation to keep their eyes on the so-called shadow financial system, or shadow banking. Will these authorities have the ability to balance between the incumbent financial players, FinTech and the dangers of shadow-banking? Will they be able to differentiate?

Fourth Key Aspect of Complexity: The Heavy Building-Blocks of the Wall of Overregulation

We think that there is a thick wall of overregulation surrounding full license banks. Authorities are often threatening cutting banks into pieces, they have theories about putting additional burden on 'too big to fail' institutions and SIFIs (Systemically Important Financial Institutions). Meanwhile, there are huge, growing technical and legal burdens on privacy and data-protection issues and cyber-security. Capital requirements are growing, safe and fair landing regulations are surging. KYC (Know Your Customer) procedures and other compliance requirements are complicated, lengthy and often unrealistic. And amidst this overregulation, the legislative and regulatory risks themselves have grown significantly. These are the risks that changing legal framework or regulatory requirements pose to business.

Fifth Key Aspect of Complexity: The Little Explored Risk-Management Aspects of Financial Innovations

It is little explored what risks the accelerated external innovational activity and pressure really mean. Risk management – done well – is a serious science and something that, in spite of the thousands of years of evolution, still has a ways to go[28].

We take a brief look at eight types of risks in relation to financial innovations:

- **Reputational risk:** Large banks have difficulty coming to market with their internal innovations due to the risk that if it goes wrong it can distract important clients from the company. However, a degree of uncertainty and post-event bearing of responsibility is more acceptable from a FinTech startup's perspective.
- **Operational risk:** New systems are uncertain. This is okay if you only have one system. But, if a new innovative system malfunctions at a large bank, it can bring down other connected systems, resulting in huge operational losses.
- **Market risk:** Market risks are very significant for FinTech startups. An idea that may sound great and may indeed be great can easily be something that lacks any sufficient demand when it is delivered. Large banks have an advantage in bearing this market risk.
- **Legal risks:** Large banks are known for paying significant remedies. And a new solution may not be worth an eight or nine digit fine or customer-compensation.
- **Risk of not acting, risk of falling behind:** As there are risks associated with bringing innovations to market, there are at least equal risks in not bringing new things to customers. This is the inaction-risk. Major banks have to evaluate this when they consider innovation.
- **Risk of risk-management innovations:** A substantial area in FinTech is the new types of scoring systems. Psychometric and social-media-based scoring solutions are surging. The essence of all these is that they are less strict in blocking loans from being originated than the traditional models. Before 2008, we heard a number of banks mentioning their hyper-advanced scoring and risk-assessment systems that almost never fail. And we know the results. So, there is a risk here to keep our eyes on.
- **Regulatory and legislative risks:** As markets themselves have been unpredictable since 2008, so have regulations. The changing rules are posing a risk. 'What is coming next?' Interestingly enough, there is a very exciting dedicated sub-area of banking innovations focusing on new ways to adjust to changing regulations. So there is a wave of "innovative-compliance".
- **Cross border risks:** Regulations and regulators are mostly national. But, more and more of the finance world is becoming international, more so with FinTech companies, often lacking a branch-network and only operating on the web which makes it not only more adequate but also much easier and less costly to go international.

---

[28] The events of 2008 have very clearly shown this.

10. Quantitative Overview and Forecast:

The total value of FinTech investments is expected to reach cca USD 20 billion in 2015. This is going to double by 2019[29]. All sources agree: this is a global growth sector[30].

1.1. Total Value of FinTech Investments, USD Billion

Unit: USD billion	USA	Europe	Asia	Africa	Australia	TOTAL GLOBAL
2008. (Estimate):	0.4	0.2	0.2	0.0	0.1	0.9
2009. (Estimate):	0.7	0.2	0.3	0.1	0.1	1.4
2010. (Estimate):	0.9	0.3	0.4	0.1	0.2	1.9
2011. (Estimate):	1.7	0.3	0.5	0.1	0.2	2.8
2012. (Estimate):	2.7	1.0	0.5	0.2	0.3	4.7
2013. (Estimate):	3.9	1.4	0.9	0.2	0.4	6.8
2014. (Estimate):	6.2	1.8	1.2	0.2	0.5	9.9
2015. (Forecast):	12.7	3.5	2.2	0.5	0.8	19.7
2016. (Forecast):	15.9	4.0	2.4	0.8	0.9	24.0
2017. (Forecast):	18.0	5.9	3.2	1.5	1.0	29.6
2018. (Forecast):	19.1	6.9	5.0	2.4	1,3	34.7
2019. (Forecast):	22.3	10.0	5.9	3.0	1,6	42.8
2020. (Forecast):	24.4	10.2	6.7	3.0	1.8	46.1

Table 1: Total Value of FinTech Investments, USD Billion
Unit: USD billion
Source: Banking Reports Research Team Estimate

[29] Our numbers are based on our own Research Team Estimates. We have synthetized the numbers of prior reports by prestigious sources and have added the conclusions from our activity in the FinTech arena and the numbers derived from our daily discussions with industry experts. This is what we call 'Banking Reports Research Team Estimate', synthesizing primary and secondary sources of quantitative and qualitative information.

[30] Some of the driving forces behind this intensive growth are coming from global aggregates. Global population: 7.2 bn, growing fast. Active internet users: 3.0 bn, growing fast. Active social media accounts: 2.1 bn, growing fast. Unique mobile users: 3.6 bn, growing fast. Active mobile social media accounts: 1.7 bn, growing fast. These forces are all bringing new clients with new platforms of preference to financial services providers of all sorts.

1.2. CAGR* of FinTech Investments, Percent, base of growth: prior year

Unit: percent	USA	Europe	Asia	Africa	Australia	TOTAL GLOBAL AVERAGE
2014. (Estimate):	59	29	33	3	25	46
2015. (Forecast):	105	94	83	150	60	99
Next 5 years (Forecast):	26	34	33	57	24	29
Next 10 years (Forecast):	21	24	27	30	18	23

*** Compound Annual Growth Rate**
Table 2: CAGR* of FinTech Investments
Unit: Percent
Source: Banking Reports Research Team Estimate

1.3. Distribution of FinTech Investments by Sector of Origin, Percent, Global

Unit: percent	FinTech	FinServ	Cooperated*
2014. (Estimate):	62	19	19
2015. (Forecast):	54	22	24
2016. (Forecast):	46	24	30
2017. (Forecast):	43	22	35
2018. (Forecast):	45	20	35
2019. (Forecast):	47	18	35
2020. (Forecast):	49	16	35

*** FinServ companies funding external, separately managed FinTech companies in a cooperative model. In case of majority ownership of a FinTech venture by a FinServ company it accounts as a FinServ investment.**
Table 3: Distribution of FinTech Investments by Sector of Origin
Unit: Percent
Source: Banking Reports Research Team Estimate

1.4. Efficiency of FinTech Activity by Sector of Origin, Percent, 10 year projection

Unit: percent	Ratio of Wasted Resources	Ratio of Productive Resources
FinTech:	78	22
FinServ:	88	12
Cooperated:	72	28

Table 4: Efficiency vs FinTech Activity by Sector of Origin, 10 year projection
Unit: Percent
Source: Banking Reports Research Team Estimate

1.5. Strength of Cooperation and Competition between FinTech and FinServ, qualitative, five level scale (Minimum, Low, Medium, High, Maximum), 2015 vs 2020

2015	USA	Europe	Asia	Africa	Australia	TOTAL GLOBAL
Competition	MED	LOW	LOW	HIG	MAX	MED
Cooperation	LOW	MED	LOW	MIN	MAX	MED
2020	**USA**	**Europe**	**Asia**	**Africa**	**Australia**	**TOTAL GLOBAL**
Competition	MAX	MED	MED	MAX	MAX	HIG
Cooperation	HIG	HIG	HIG	LOW	MAX	HIG

Table 5: Strength of Cooperation and Competition between FinTech and FinServ, 2015 vs 2020
Unit: Qualitative, five level scale (Minimum, Low, Medium, High, Maximum
Source: Banking Reports Research Team Estimate

Competition, as well as cooperation, is expected to strengthen between FinTech and FinServ in the coming five years. This shows how this arena is set to become really hot year by year. Competition and cooperation are often perceived as a mutually exclusive phenomena, but thorough analysis proves that the two are parallel but the intensity of the two can be different.

1.6. Areas of FinTech Innovations, in percentage of number of initiatives started, 2015 vs 2020

Unit: percentage of number of initiatives started	2015	2020
Passive, Debit	22	19
Active, Credit	28	19
Transactions (including forex, currencies and payments)	42	50
Services	3	8
Complex[31]	5	4

Table 6: Areas of FinTech Innovations, 2015 vs 2020
Unit: In percentage of number of initiatives started
Source: Banking Reports Research Team Estimate

[31] For example: treasury-wide innovations or complex mobile banking solutions, etc.

Note: South America[32] and Canada will be included in later editions as markets mature.
As of now for estimates of magnitudes the current segmentation is sufficient.

[32] The total value of FinTech activity is relatively low in South America. But some high-inflation countries are active in the BitCoin arena. Citizens in Argentina in particular are highly interested in BitCoin as a store of value to balance the high-inflation, high-frequency of banking-melt-down and sliding exchange-rate environment.

BANKING REPORTS is the dedicated producer of top quality off-the-shelf and on-demand reports for the banking industry.

MarketResearch.com provides you with instant online access to the most comprehensive collection of market intelligence products and services available on the Web, offering expert insights on global industries, products, company profiles, and market trends.

Contact Us

Phone: 800.298.5699 (U.S.) +1.240.747.3093 (International)
Email: customerservice@marketresearch.com