Open Banking presents ways for banks to create new revenue sources and generate value for all members of its ecosystem. This paper explores new business models and strategic opportunities.
Table of Contents

1. Introduction 4

2. A changing competitive environment 7
   2.1 Introduction 8
   2.2 Fintechs 9
   2.3 Challenger banks 10
   2.4 Other non-traditional banks 10
   2.5 White-label banks 11
   2.6 Bigtechs 13
   2.7 Customer expectations are changing 14
   2.8 The implications for banks 17
   2.9 Different responses from banks 18

3. The Open Banking Transformation: Banking-as-a-platform 21
   3.1 Introduction 22
   3.2 Platform business models 24
   3.3 Open APIs 28
   3.4 Under the bank’s roof 32
   3.5 Create triple-win situations 36
4. Strategic opportunites

4.1 Taking advantage of the bank’s resources
4.2 Leveraging trust
4.3 Timing
4.4 Respositioning and transforming smaller banks
4.5 Technical facilitators of Open Banking

5. Challenges

5.1 Outdated core technology
5.2 Culture
5.3 Possible loss of security and control
5.4 Network effects and low initial traction

6. Closing remarks

6.1 Closing remarks
6.2 Sources
Introduction

The role of banking in the digital age has gained increased attention. Agile financial technology companies (fintechs), as well as powerful large technology companies (bigtechs), are invading markets previously dominated by banks. These new entrants offer personalized and engaging services that traditional banks have not had the flexibility or capability to offer. For instance, non-banks are offering services typically associated with banks by leveraging data about users’ preferences, behaviour, and history. The results are unique digital experiences that engage consumers in a completely new way. The new entrants have digital capabilities superior to those of banks, and threaten substantial chunks of banks’ revenues and profits.

This paper explores Open Banking, and how it can help banks react to new entrants and respond to changing customer expectations. With Open Banking, banks can not only bring new, relevant products and services to market faster, but also reduce costs and risks during the development and launch. Consequently, Open Banking presents an opportunity for banks to remain relevant by transforming their role.

“Open banking enables people, businesses and things to give, take and multiply value creation for the bank by sharing assets like data, algorithms and transactions with business ecosystems.”

Gartner, 2016

1 Gartner (2016): Hype Cycle for Digital Banking Transformation
Many bank CIOs are convinced of the transformational value of Open Banking. Increasingly, banks acknowledge that Open Banking platforms are the industry’s endgame. While mainstream adoption of Open Banking may be 5-10 years away, some aspects of Open Banking, such as open APIs, are expected to reach mainstream adoption levels in the near future. In Europe, an early adoption of APIs is necessary for banks to comply with PSD2, but it can also provide an opportunity for banks to get a head-start and catapult into Open Banking.

Before exploring Open Banking, this whitepaper will outline the threats surrounding traditional banks and how various actors are eating banks’ pie. Customer expectations have changed, and we will look at some of the implications for banks. Combined with PSD2, these elements create the perfect storm.

Open Banking will be introduced as a transformational opportunity for banks, with new monetization models and unique triple-win situations. This paper will explore strategic opportunities enabled by Open Banking, and will look at some of the advantages that banks possess. Finally, it will also present some of the challenges banks will have to overcome prior to an Open Banking transformation.

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Part 2:
A changing competitive environment

2.1 Introduction
2.2 Fintechs
2.3 Challenger banks
2.4 Other non-traditional banks
2.5 White-label banks
2.6 Bigtechs
2.7 Customer expectations are changing
2.8 The implications for banks
2.9 Different responses from banks
2.1 Introduction

Today, banks operate in a competitive environment where they are threatened by new, born-digital banks, as well as companies that are not banks. After years of becoming accustomed to “personalisation” in the digital sphere, consumers are now expecting personalised banking services and the ability to bank at their own convenience - from wherever they want, on any device, and at any time of the day\(^1\).

Many competitors of traditional banks are leveraging customer-data to provide consumers with engaging services and experiences. With the forthcoming implementation of PSD2, banks will be obliged to share their customer data with certified third-parties (see more in our PSD2 whitepaper).

We divide the new competitors in five categories.

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2. Fujitsu (2016): The Fujitsu European Financial Services Survey
2.2 **Fintechs**

Fintechs have been gaining increasing attention and investment in the past few years. Their technological infrastructure is brand new, more efficient, and cheaper to operate than banks’ legacy systems. Their services are flexible, customisable, and often cater to individuals and businesses who are deemed ineligible by traditional banks. Worryingly for banks, they also “steal” current and potential customers from banks by specialising in one or a few of the areas where banks operate; such as lending, payments and wealth management. By cherry-picking which banking business areas they enter, they often avoid the regulatory burden suffered by banks. Consequently, this creates an unequal playing-field where the banks are at a disadvantage.

Additionally, many fintechs employ easy-to-use apps or webpages that are designed with customers’ interaction and experience in mind, and try to capture the front-end of banks’ value chains. By capturing the moment when customers interact with their finances and bank accounts, fintechs own the customer relationship. This is reducing banks to mere back-end utility providers who only process low-margin transactions.

Estimates vary, but some believe that by 2023 fintech revenues from consumer-banking services will exceed $200 billion in North America alone, and that within the next 10 years, almost a third of traditional bank employees will be wiped out\(^1\).

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2.3 Challenger banks

There are also brand new born-digital banks with banking licenses who use their unconditional focus on customers’ digital experience will convince customers to leave their old bank. British Atom Bank is a digital mobile-only bank with 24/7 in-app customer support; opening an account requires just a few taps, and users can verify themselves with “selfies”. The app’s user interface resembles that of a video game, as the interface is made with the same video game engine as Pokémon GO. Customer service is constantly optimising itself using machine learning, and Atom does not even plan to launch a website version of its bank.

Monzo Bank intends to offer its customers real-time breakdowns of spending habits, integration with Uber and public transportation, and predictive AI. N26 (previously Number26) is a German bank, which gives consumers access to all their banking needs through a single digital platform. Rather than providing all these services itself, N26 acknowledges that it can provide a better customer experience by leveraging the power of partners and integrating external services with its own offerings.

2.4 Other non-traditional banks

Furthermore, we also see non-banks offering banking and financial services. The retail giant Wal-Mart has obtained a banking license in Canada; the Norwegian multinational supermarket chain Rema 1000 sells insurance products; and Komplett.no, a large Nordic e-commerce company, launched its own bank in 2014. For many companies, offering banking services is a way to re-bundle services under their own roof, in order to increase top-line growth. It is also a way to attract consumers who are either unbanked or underbanked. Wal-Mart’s prepaid cards give people without a banking relationship access to a debit card. In addition, companies can offer consumer credit to consumers who would not be eligible for similar services in a bank. The consumer credit is, of course, a way to lock in customers to increase sales of the company’s products. Regardless of motivations, these initiatives by non-banks are drawing customers away from traditional banks.

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1. PwC Strategy (2016): Catalyst or threat? The strategic implications of PSD2 for Europe’s banks
2.5 White-label banks

One scenario if banks fail to respond to the disruption is being reduced to a back-end commodity bank. However, there are already companies who intend to position themselves as back-end commodity banks - “white-label banks”.

White-label banks are fully licensed banks that offer fintechs to provide services on top of its infrastructure. Until now, fintechs have seen a need to cooperate with traditional banks in order to build on their infrastructure and bring their services to the market. White-label banks offer a modular banking platform and deals with regulatory and compliance issues, enabling fintechs to focus on their core business. We argue this is a twofold challenge as it may reduce fintechs’ need to cooperate with traditional banks and adds pressure to banks’ existing challenges.
2.6 Bigtechs

While a pack of smaller fintechs and other companies are prepared to enter the banks’ markets and erode their market shares and profits, there are also bigtechs who have incentives to provide traditional banking services.

Bigtechs will be able to add increased context, relevance and engagement to the services they provide by combining financial data, spending patterns, and online behaviour with locational data.

Sending and spending

Much has been written about how bigtechs - Google, Facebook, Apple, Amazon - may disrupt the banking industry, and many speculate if we will have a ‘Google Bank’ or ‘Apple Bank’ in the near future. However, banks should probably not worry about bigtechs becoming banks anytime soon, due to stringent regulations and other impediments that cripple these companies’ ability to operate with agility and creativity.

What should worry banks is that bigtechs could take on some of the roles of banks. Amazon already provides loans to sellers on its marketplace; Apple lets you pay with their devices; and money can be sent via Google, who is also licensed to sell insurance in 48 US states. Facebook facilitates p2p payments for its US users, and is integrating in-app payments for third-party products and services. As of today, Facebook has applied for a European e-money license.

By building on apps and websites consumers are already using on a day-to-day basis, bigtechs’ banking services become integrated in daily life events and interactions in customers’ contexts. Moreover, facilitating the sending and spending of money helps generate data, which strengthens and reinforces bigtechs’ business models and value proposition.
Customer expectations are changing

Leaps in technological progress - particularly driven by the mobile platform - have led consumers to expect a seamless multichannel experience and a consistent, global service. As a result, one of the main challenges for banks has been to transform their existing service models to meet customer expectations, while keeping costs down.

Whether it is realistic or not to expect bigtechs to enter the banking industry; consumers seem open to it. In a survey of 7,000 European consumers, every fifth respondent (19%) said they would buy banking and insurance services from companies like Amazon, Facebook, Google and Apple.

Consumers are indeed expecting and demanding more personalised and engaging services, with the majority of consumers in a survey stating that they “expect the companies they do business with to know their preferences and understand their needs”. Many reports illuminate that consumers are willing to share a lot of data in exchange for personalised and engaging services - both financial and non-financial services.

As for millennials 33% of ten thousand respondents believe they will not need a bank at all, and 73% would be more excited to receive new financial service offers from companies like Google, Amazon and Apple than from their banks. Meanwhile, 71% respond they would rather go to the dentist than to listen to what banks are saying. When banking does not happen in millennials’ context, millennials will look elsewhere than the bank for banking services.

Consumers are increasingly “shopping around” for banking services, and do not stay loyal to a single bank. 46% of consumers meet their financial needs through multiple brands, thereby unbundling banking services. Regrettably for banks, they have to deal with costly and burdensome regulatory requirements, whereas fintechs and other companies who offer only one or a limited number of services are less burdened.

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1. Fujitsu (2016): The Fujitsu European Financial Services Survey
2. SAS Institute (2016): Mobility, vulnerability and the state of data privacy
4. SAS Institute (2016): Mobility, vulnerability and the state of data privacy
5. EVRY Financial Services (2016): EVRY User Data Survey
6. MDI (2013): The Millennial Disruption Index
2.8 The implications for banks

The implications for banks are not negligible. Estimates vary, but up to 60% of profits and 40% of revenues in retail banking—excluding mortgages—could be lost to new entrants in the next decade\(^1\)\(^2\). It should also be worrying for banks that new entrants—‘intruders’ from banks’ perspective—are starting to own the customer relationship.

Some 80% of a customer’s interactions with his or her bank are payment-related\(^3\), and payments often act as a gateway to other banking services. It is not lost payment-related revenue banks should necessarily be worrying about. Rather than making money from payments, the hope is that consumers will take out loans or other high-margin and profitable products in the same bank. In the advent of PSD2, 68% of leading European banks are concerned about losing the customer interface\(^4\).

The customer interface of banking is changing. Digital customer interactions are encompassing far more aspects of a customer’s life than traditional banking have yet achieved. PSD2 forces banks to release their customer information to third-parties; but it also allows more value to be created by touching far more aspects of the customer’s life.

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4. PwC Strategy (2016): Catalyst or threat? The strategic implications of PSD2 for Europe’s banks
2.9 Different responses from banks

Incumbent banks have reacted to disruption from small and large competitors in diverse ways. Certain banks have set out to acquire fintechs and integrate them in their own business so that they can offer innovative services under their own brand and maintain control over the customer relationship. A few banks are inviting fintechs to innovation sessions where they try to come up with new engaging concepts together. Others are using fintechs as mere distribution channels to increase loan volumes, and some are not doing anything at all.

Citi is involved in a “try-everything approach” where it balances the act of developing new technologies in-house, at the same time as it is looking around for interesting start-ups to cooperate with.

According to a BI Intelligence report, 60% of banks worldwide would partner with a fintech, and 25% are considering fintech acquisitions. Generally, European banks are willing to collaborate with fintechs, but the report states that Nordic banks are among the least willing.

Where fintechs and bigtechs are providing services and experiences based on data of their customers, banks can either attempt to beat the newcomers at their own game or to cooperate with the new entrants. The latter can be achieved by combining internal capabilities with the services and digital experiences of third-parties through open APIs.

From their vantage point of trust, banks have the possibility to undergo the necessary digital transformation to create an Open Banking platform. With an Open Banking transformation, they also have the option to re-bundle attractive personalised and engaging services with high-margin products. The real risk is clinging to traditional banking, which takes loyalty for granted and provides services that are no longer in the context of their customers.

1 Business Insider Intelligence (2016): 25% of global banks would buy a fintech company
Part 3:
The Open Banking transformation: Banking-as-a-platform

3.1 Introduction
3.2 Platform business models
3.3 Open APIs
3.4 Under the bank’s roof
3.5 Create triple-win situations
3.1 Introduction

By adding third-party services on top of internal capabilities and offerings, banks can situate themselves at the centre of an ecosystem where the bank’s users can find services that are useful and engaging. This is achieved by combining internal capabilities with the services and digital experiences of third-parties through open APIs - application programming interfaces. [see sidebar 1 for examples]

Banks are not able to provide all the financial services their customers want. This is both due to their traditional product focus, but also because start-ups have much more agility and fewer compliance hindrances. Cooperating is preferable to competing or resignation to letting fintechs own the market. Banks could indeed do well by allowing new entrants to offer services that either increase current customers’ satisfaction, or attract new users to become members of the bank’s ecosystem. Banks can also offer fintechs something - a premium on customer trust.

Services that third parties may offer on top of a bank’s platform include, but are not limited to, user-friendly visualisation tools, “fun” saving apps, or personalised financial management services. These examples, however, would require banks to share their customer data with an external party, something banks would be hesitant to do. PSD2 leaves banks with little choice. We encourage banks to re-think how they create and appropriate value, and position themselves for strategic opportunities beyond PSD2 compliance.

Different ways to adopt Open Banking

• BBVA ran hackathons already in 2014 to position themselves for a future where fintech start-ups build applications on top of their platform.
• Sutor Bank will give partners access to its core banking system and APIs, where the end goal is to become a one-stop-shop for all banking services.
• Nordea is transitioning towards becoming an “app-store” for fintechs, and expects to have approximately 100 cooperation agreements with third-parties in 20201.

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I think Open Banking is probably the best thing that has happened the banking community.

Partrik Havander, Head of Strategy & Communication, Transaction Banking, Nordea

1. Finextra, 2016: Banking will be a funky place to work in two years
3.2 Platform business models

In traditional linear business models, value is produced upstream in the form of goods and services, sold to customers, who consume the value downstream. Conversely, a non-linear platform business model works differently, because multiple participants - producers and consumers - both create and exchange value. A platform business model’s success is enabled by network effects.

“A platform is a plug-and-play business model that allows multiple participants (producers and consumers) to connect to it, interact with each other and create and exchange value’.

In a linear business in the first figure, value is created upstream by the bank, sold to customers, who consume value downstream. In the platform business model in the second figure, multiple participants create, exchange, and appropriate value.

With Open Banking, banks will allow third-parties to “plug” into banks’ data and infrastructure and to build applications. As the platform business, banks also manage the rules for how much third-parties can “play”, and set the standards for acceptable business practices.

A platform business is not to be exchanged with the technical “platform” of a bank.

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1 Platformed (2015): The platform stack: For everyone building a platform… and for everyone else
A platform is a business model that creates value by facilitating exchanges between two or more interdependent groups, usually consumers and producers.

Alex Moazed, 2016

Platform business models and network effects

Case in point: Uber, as a platform business company, connects ecosystem members with each other and allow ecosystem members to create and exchange value. When more riders who request a ride through Uber, it will be more attractive for drivers to join Uber’s platform. The more drivers, the easier and more attractive it is to request a ride through Uber, and so on. The more riders and drivers, the more value Uber can appropriate as the platform business.

Platform success and its surrounding ecosystem is enabled by network effects and positive externalities: The more users on one side of the platform, the more users on the other side of the platform. The more users on both sides of the platform, the more money is created by and for the platform members, and the more value the platform company can appropriate. These externalities - same-side and cross-side - act as a virtuous cycle, catalysed by the platform’s positive network effects - all of which are adding to each other and reinforcing the utility of the platform.

1 Moazed, A. (2016): What is a Platform?
Banks have large customer bases, and third-party actors would be interested in access to the bank’s customers.

New and engaging services from third-party services accessible in the bank’s ecosystem attracts more customers.
More customers attract more third-parties, and more third-party services available in the bank’s ecosystem attract more customers.
3.3 Open APIs

A bank can be the platform business at the centre of an ecosystem, connecting private and business customers with the bank’s services and with the services of third parties. A bank has different types of customers with different needs, but all can have their needs met inside the ecosystem. Through APIs - application programming interfaces - third-parties can build and provide services on top of banks’ infrastructure. An open API is an easily accessible interface that gives web and mobile developers access to customer data. This means that an open API may be used by both developers inside the organization that published the API, or by any developer outside the organisation who wish to register for access to the interface.

With APIs, banks can create an umbrella for new services developed by the bank itself or by third parties. When services are provided by third-parties, the bank’s cost and risk in developing and launching new products are reduced, as is the time to market.

Some banks are already facilitating for external developers to build applications and functions on top of their infrastructure:

- US-based bank Capital One, which has launched three open APIs on a platform they call DevExchange. External developers can use this platform to create new experiences for Capital One’s customers, including reward programs, money management and financial planning tools. The portal will also lay the foundation for the bank’s future open source projects.\(^1\)

- Citi is making a mobile app with open architecture. This is to be able to make the smartest, best and most useful fintech features available for their customers. By integrating fintechs - “fintegration” - Citi can enhance the utility and value proposition of its own app.

- N26 acknowledges that it can provide a better customer experience by integrating external services with its own offerings, thus leveraging the power of partners.

\(^1\) Boyd, M. (2016), ProgrammableWeb: Capital One Launches First True Open Banking Platform in US
Banks can also maintain a high degree of control by deciding which APIs to open, and with whom they share them with. There are different types of open APIs, each of which with different opportunities and business implications. For example, a partner API gives the bank greater perceived control, but a public API may increase the likelihood of achieving high initial network effects. It is possible for a bank to distinguish the openness of its APIs, and the openness should match a bank’s Open Banking Strategy. Banks should also explore the consumption of other companies’ APIs.

Open APIs range from partner APIs to public APIs, and have varying degrees of openness. While partner APIs are only opened for a bank’s close and preferred partners, a public API is accessible to anyone who have filled in a basic registration form. Consequently, banks can still maintain a lot of control over how their open APIs are accessed and utilised, depending on the type and openness APIs.
In transitioning to Open Banking, “Bank A” opens its APIs to third-party applications and services. Services may include, and are not limited to, payments, lending, shopping, and transportation. For “Bank A”, it is worth remembering that many of the third-party services connecting with the bank through APIs may also be connected to “Bank B” and other banks. The new reality leads to not only new opportunities for incumbent banks, but also to new challenges and implications that banks will have to overcome.
Extracting monetary value from Open Banking and APIs

As for revenues, banks will have to decide how they wish to monetise Open Banking partnerships or Open Banking APIs. There are different ways to monetise APIs\(^1\), and we categorise monetisation models as direct and indirect.

### Direct monetisation

- Monetise APIs by charging for API licenses.
- Charge API usage on a volume basis.
- Subscription-based premium features that provide third-party providers with "premium" tools, data, visibility, and "exclusive" APIs.

Direct monetisation models resonate well with normal business practices and traditional accounting. However, as banks embrace Open Banking, we expect to see a "race to the bottom" as far as fees and licenses go, as individual banks will try to make their own platform business a preferred destination for third-party providers.

### Indirect monetisation

- Take a cut of transactions from exchanges between ecosystem members, e.g. third-party-to-user or user-to-user.
- Monetisation from increased distribution of services through third-parties. Here, the API is not monetised directly, but the bank monetises its normal services through new distribution channels.
- Indirect monetisation from higher ecosystem traffic and increased revenue from core services. Here, the bank gives away APIs for free, and the increased traffic to the ecosystem’s third-party services leads customers to buy high-margin products and services, such as loans from the bank. For example, a bank could offer a credit application API for free to third-parties such as travel agents. The third-party’s use of the API assists in driving revenue for the bank; in this case from generating sale of credit services. The same reasoning can be extended to home loans or car loans.

Another point is that by moving early, banks can reduce potential loss of income to other banks who use their first-mover advantage. We believe that many banks will initially prefer direct monetisation, for reasons ranging from simpler accounting, established paradigm thinking, and greater control. However, as time goes by, we strongly encourage banks to explore and consider free APIs with indirect monetisation from increased ecosystem traffic and core revenues.

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\(^1\) Riggins, J. (2015). Top 5 API Monetization Models
3.4 Under the bank’s roof

Re-bundling unbundled services

By controlling the core technology - the platform - banks go a long way in responding to some of the threats outlined in introductory sections of this paper by orchestrating their own ecosystems.

As a platform business facilitating interactions and value creation, banks are essentially creating a marketplace where they own the land and utilities, and allow others to set up stores. Some consumers have started to shop around because the best products are scattered around, but as a platform, a bank has the opportunity to collect all the best products under its own roof. At the same time, banks are solving some of the problems experienced by fintechs and other non-banks. For example, non-bank lenders are unable to scale services to a growing customer base. Also, fintechs and non-banks may excel in offering stand-alone services, but lack the size and scale to offer compelling packages of financial services.

Banks have the size and scale to bundle stand-alone services on its platform, catering to the many customers who we believe still prefer bundled services over shopping around. By re-bundling the previously unbundled services, banks can regain the position as one-stop-shops for financial services that also include personalised and engaging experiences. This can be a convenient place for customers who prefer to buy all their services from one place.

Banks can welcome third-parties who create engaging services and unique experiences to the bank’s ecosystem, and include them in the bank’s value proposition. This will increase satisfaction for existing customers, attract new loyal customers, and facilitate interconnectivity that leads to interdependability and lock-in effects in the particular bank’s ecosystem.

“A concern that banks have is the arrival of big ecosystems that will replace them, so Google, Facebook, Apple, etc.”

Alessandro Hatami, former digital payments and innovation director at UK bank Lloyds

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1 Finnegan, M. (2016), ComputerWorld UK: How technology will transform banking in 2016: Blockchain, digital challengers and IOT
Crucially, this not only helps protect the bank’s core revenue sources, but also creates new potential revenue sources as the bank can monetise the interactions and relationships forming in the ecosystem. The technology is mature, but we argue that the normal way of thinking about business does not prepare banks for Open Banking and open API strategies.
Engagement banking and Emotional banking: Building valuable relationships

Consumers who view their banking relationship as transactional find it easy to change their mortgage to a bank with lower interest rates. In this case, mortgage is a simple commodity. In an open-banking ecosystem, a bank could include third-party providers of services that allow soon-to-be homeowners to view houses with virtual reality headsets from their couch, and plan home decoration and refurbishment with the help of augmented reality, or any other service that assist in the process of buying or owning a home. By adding services and experiences that customers find valuable and engaging, and also relate to important events in a person’s life, customers can see their banking relationship as relational rather than just transactional.

Customers are less likely to change from one bank to another, if they have access to a wide variety of end-to-end services that add value through their banking relationship. In the future, we will likely see some banks take on the role as ecosystem orchestrators. Consequently, traditional banks will have to compete against these ecosystems. [figure - ecosystem vs bank]

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1 Accenture (2015): North America Consumer Digital Banking Survey
3.4 Create triple-win situations

With Open Banking, we strongly believe there are opportunities for unique triple win situations: The bank’s customers win by being offered unique services that are either cheaper or better than what is currently available to them, while third parties win by acquiring new customers they could not previously access. The bank, as the platform, wins by appropriating some of the value generated by other ecosystem members, on top of the value it already creates and captures. Adding to that, banks can translate non-monetary gains into brand building and customer loyalty. Moreover, even though third-parties build on top of a bank’s infrastructure, the bank retains control over the platform. Through orchestrating ecosystem network effects and resource complementarities, banks can harness the power of partners and generate value for all its members.

We expect that one or two APIs coupled with a bank’s linear business is probably the approach most banks will choose, as it allows banks to test the waters of Open Banking while maintaining a high degree of control and predictability.
Part 4:

Strategic opportunities

4.1 Taking advantage of the bank’s resources
4.2 Leveraging trust
4.3 Timing
4.4 Repositioning and transforming smaller banks
4.5 Technical facilitators of Open Banking
4.1 Taking advantage of the bank’s resources

In addition to vast amounts of customer data and regulatory know-how, banks already have large customer bases that new fintechs will struggle to match. Banks’ customers are also “sticky” in the sense that people rarely leave their bank, even when they are not satisfied with their bank.

Many competitors of banks - particularly lenders - struggle to scale so as to meet the financial needs of their customers. Banks, meanwhile, not only have the ability to meet most of their borrowers’ needs through fractional reserve banking, but also have experience in dealing with security and compliance issues.
4.2 Leveraging trust

In addition to vast amounts of customer data and regulatory know-how, banks should leverage. Consumers trust their bank more than any other company to initiate payments on their behalf and to manage their data. Banks are also trusted more than any other company to provide their customers with tailored financial products that provide opportunities and incentives to save money. EVRY’s exploratory research finds that banks are in a unique position as a trusted provider of data-driven services.

We believe that banks can leverage this trust to reach a larger customer mass with innovative, data-driven digital experiences. By connecting with third-parties under their own roof, banks can improve their value proposition and attract new customers to a bank that feels engaging. This will help banks maintain their role and relevance in the future.

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1 Accenture (2016): Consumers’ initial reactions to the new services enabled by PSD2
2 EVRY Financial Services (2016): EVRY User Data Survey
4.3 Timing

While third-parties have to wait until January 2018 to access customer data from banks, banks have the first-mover advantage to create meaningful and engaging experiences for their customers today. Rather than just complying with the regulatory requirements, banks are in position to establish an ecosystem and leverage it to innovate and disrupt.

Creating a sustainable ecosystem requires substantial time and resources. Once in place, latecomers will struggle to replicate the success and network effects of early ecosystems. As a consequence, banks who invest early will raise barriers for late market entrants.
4.4 Repositioning and transforming smaller banks

Large banks have some of the necessary resources and capabilities to handle the transformation. However, for small-to-medium sized banks, resources are scarce, and a different approach may be necessary. Smaller banks which lack the resources required to establish their own ecosystem must also consider how and in which way they are transforming their business in terms of implementation. Early dialogue with their IT solution and infrastructure vendor, and cooperation with new entrants, will ease banks’ implementation of Open Banking and open APIs. We suggest two initial directions for smaller banks to explore:

Niche markets: Smaller banks can find partners that help them target underserved niche markets where customers demand a lot of attention and a “personal touch”. Target markets could include SMBs, wealthy individuals, or soon-to-be homeowners.

Local markets: Smaller banks may find green pastures in cooperating with third-parties who can help them serve their local communities. Big bank ecosystems will struggle to replicate a “local touch”.

4.5 Technical facilitators of Open Banking

Replacing architecture with SOA

For some banks, a complete redesign of the core architecture is an opportunity to reshape the siloed product-based model and replace it with a service oriented architecture (SOA). Reinforced by a flexible platform-based solution, this will put the customer relationship at the centre of banks’ decision-making processes. It will simplify connectivity to existing systems and support other solutions that can be quickly tailored to banking customer needs. A core architecture redesign also enables a seamless integration with third-party services and APIs. By doing this, a bank is able to fully utilise customer data, as well as process real-time interactions.
Pace layers to enable Open Banking

One way to make tracks for Open Banking is to adopt a pace-layered methodology that categorises systems based on how they are used and how fast they change. The idea of pace layers was coined by Gartner and can be used to build an improved architecture that enables companies to adopt new technologies. The systems are categorised into 3 groups:

1. Systems of record. Current legacy systems that perform core operations and company master-data management. The systems are characterised by a low rate of change and long life-time cycles.

2. Systems of differentiation. Systems or solutions that facilitate capabilities distinctive for the company or the industry. The systems have a life cycle up to three years and require recurrent patching to match changing customer needs or business operations.

3. Systems of innovation. New, disruptive systems that are developed in order to address emerging opportunities or requirements for the business. They have a life cycle of less than a year and utilise in-house or external capabilities and technologies.

A pace-layered approach helps management teams identify which activities are truly differentiating in order to pave the way for adopting aspects of Open Banking. We suggest present-day banks build on top of their current core systems with a middle-layer blueprint as a system of differentiation if core renewal is not an option. Open APIs, as systems of innovation, can be integrated to offer flexible functionality and customer-centric services. The technology is already mature, and a way for banks of all sizes to test the waters of Open Banking.

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Part 5:

Challenges

5.1 Outdated core technology
5.2 Culture
5.3 Possible loss of security and control
5.4 Network effects and low initial traction
5.1 Outdated core technology

Core banking systems are the oldest in banking technology and is one of the biggest hinders for banks in adopting Open Banking. Due to the complex nature of the legacy systems, dealing with core banking is time-consuming and expensive. One bank found that manual workarounds and an increasing volume of custom patches ran up an additional €100 million in IT spending\(^1\). Redesigning core architecture is also a costly and time-consuming solution. In the Nordics, Nordea invested € 1 billion in its core banking overhaul, and the transition is expected to take about 5 years\(^2\).

The design issues of core banking have been addressed by the Banking Industry Architecture Network (BIAN). The organisation seeks to establish a reference framework to identify and define IT services in the banking industry. BIAN’s framework represents an opportunity for banks to facilitate legacy system replacement, and consequently improve business agility and reduce integration costs. Ultimately, adopting these industry service-level standards will give banks a competitive advantage, by enabling modern and user-friendly technology leveraged by vast amount of customer data.

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1 McKinsey (2010): Overhauling banks’ IT systems
5.2 Culture

Traditionally, banks have pushed products on their customers, based on assumptions about customers’ needs. Combined with increased product complexity, this often leads to frustrating and unsatisfactory experiences for customers interacting with the bank. We suggest that banks rather take a holistic approach to the client relationship and simplify the client experience. Banks must move beyond a product-driven sales culture, adopt a mind-set that puts them in their customers’ shoes, and offer services that originate from actual customer needs. These changes are not accomplished overnight and banks should prepare for a larger organisational shift.

Adopting new technologies require banks to assume a certain amount of risk, something banks have traditionally been reluctant to do. For a successful adoption of Open Banking, we argue banks need to learn how to rapidly acquire high-value capabilities, while tolerating risk. However, by allowing third-parties to take part and develop APIs on a bank’s platform, some of the risk is assumed by the third-party. Consequently, the bank mitigates some of the risk affiliated with developing and launching new products and services.

With a changed mind-set, banks may find that third-party competitors may be transformed to third-party co-operators. Instead of competing head-to-head with engaging personalised digital experiences, we suggest banks use them as benchmarks and extract valuable insights.
Another aspect to Open Banking and publishing Open APIs is related to security and possible loss of control for banks. The inherent purpose of an open API is that anyone can request to view data from the API. While a regular user would do no harm, the data is at risk from black-hat hackers who might use the data accessed from the API for criminal purposes, such as fraud and identity theft. Monitoring requests and responses of the API enables the protection of users, as well as providing useful analytics on consumer usage of the API. Additionally, sophisticated authentication must be in place to ensure that the user or device has the appropriate permission to edit or delete the requested data. This validation protects the API from unauthorised access and consequently strengthens the API from attacks.

Publishing open APIs can also make it harder for banks to control the end-user experience. Banks cannot always assume that third-parties will maintain the corporate branding when they publish APIs on a bank’s platform. However, by consciously giving up control and actively collaborating with third-parties, banks can build strong partnerships that materialise positive outcomes for everyone involved - enabling interested participants to access their platform and co-create with the bank.
5.4 Network effects and low initial traction

A key challenge to solve with platform business models is a chicken-and-egg problem. Platforms are multi-sided markets, and without users on one side of the platform, it is difficult to acquire users on the other side of the platform. For example, few consumers will request a ride through Uber if there are no drivers and no drivers will join Uber if there are no potential riders. Ecosystems require network effects and positive externalities that add to each other and reinforce the utility and the benefit for its members.

However, we argue that banks have already solved this challenge. With their already large customer bases, the “chicken”, is already there for the bank. The next step is to facilitate network effects and interconnectivity between users and “the egg”, namely third-party providers.

The second challenge with platforms is to ensure that third-parties actually produce and create value for other members. The enormous opportunities for third-parties to create and extract value alone are sufficient incentives for third-parties to produce meaningful features and application for a bank’s customers. To gauge third-parties’ incentives in creating value, we need to look no further than the existing scale of investments in fintechs.

Network effects

In the Nordic region, payment platform apps - such as Vipps, MobilePay, mCash - have achieved high adoption rates, and are arguably examples of platforms where users create and exchange value with each other. Today, as the payment platforms have acquired a large user base on one side of the platform (P2P payment users), they are beginning to include merchants and businesses on the other side of the platform. This perfectly illustrates how some banks are, to some extent, already exploring network effects and platforms where multiple participants create and exchange value.
Part 6: Closing remarks

6.1 Conclusion
6.2 Sources
6.1 Conclusion

New entrants and changing customer expectations are transforming the banking industry. Banks are in danger of losing not only the customer interaction, but also the entire customer relationship. Combined with the implications of PSD2, this creates a perfect storm scenario for banks.

Open Banking transformation paves way for the adoption of open APIs, which in turn presents strategic opportunities where external service providers build on top of banks’ data and architecture. Open Banking help banks bring engaging services to market faster and cheaper than they would be able to themselves. Moreover, Open Banking enables banks to bundle stand-alone services under their own roof, and helps banks their role and relevance in the future.

By providing the necessary tools to third-parties, banks can alter the speed and ease with which third-parties can add value to their platform and its ecosystem members. Indeed, which tools a bank decides to provide and which APIs to open may be one of the main distinguishers in future Open Banking strategies. Through orchestrating network effects and resource complementarities, a bank can harness the power of partners and generate value for all members of its ecosystem.

Open Banking strategies offer many opportunities for banks, but it may be challenging for a bank to decide which opportunities to pursue. Should a bank embrace the role as a fintech app store, a member in someone else’s ecosystem, or find relevant partners to serve niche and local markets?

We encourage banks to envision how they want to position themselves in the future Open Banking landscape, and we suggest that banks formulate Open Banking strategies that align with their visions. An Open Banking strategy should not be a half-hearted initiative, but a clear and concise company-wide endeavour.
Sources

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Chapter 2.8

Chapter 2.9

Chapter 3.1

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Chapter 3.2

Chapter 3.3

Chapter 3.4


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