HOW DIGITALISATION IS CHANGING THE COMPETITIVE DYNAMICS IN BANKING
In Sweden, the banking sector has been through a comprehensive digitalisation process during the past decades. As a result, Sweden has become one of the most digitalised banking sectors in Europe.

Against this background, the Swedish Bankers’ Association has asked Copenhagen Economics to analyse how the digitalisation is changing the banking sector’s competitive dynamics in Sweden.
Executive summary

HOW HAS DIGITALISATION AFFECTED COMPETITION UP UNTIL NOW?

Up until now, the digitalisation has to some degree been a matter of making existing processes faster and efficient.

**Digitalisation paves the way for cheaper financing**

The digitalisation process has lowered the operating costs of financial service provision, e.g. through streamlining of existing analogue processes, including:

- Modes of payment have shifted drastically
- Introduction of internet-based platforms
- Number of branches has decreased by one-third since 2009

**Growing customer mobility**

Customer mobility has been growing significantly the past ten years, a development that should be seen in context with the digitalisation process, e.g.:

- Price comparison websites have lowered the informational barriers
- Digitalisation of information has reduced the information advantage of incumbent banks in a switching process

HOW IS DIGITALISATION AFFECTING COMPETITION IN THESE YEARS?

**New digitalised processes**

In these years, we see that the financial industry is starting to exploit the possibilities of entirely new processes enabled by digitalisation, gradually changing the very structures of the financial sector.

**Value chain is opening up**

The value chain in banking starts to open up; the company that has the customer on the banking book does not necessarily have the client contact. And clients can easily be served by several operators through the same platform.

As such, the competition starts to move from being on an institutional level, i.e. “the choice of bank”, to being on each part of the value chain for each product.

This process is likely to be accelerated by the regulatory measure called PSD2 which allows third-party operators to initiate account-based transactions on behalf of customers and allows stronger information sharing throughout the value chain.

The boundaries of the financial sector are also becoming more blurred: The dissolving value chain means that banks can easily offer products from third-party operators not within the traditional banking sphere. At the same time, Big Techs are moving into banking, starting with payments services.

SWEDISH BANKS CAN GAIN FROM INCREASED INTERNATIONAL COMPETITION

For a number of reasons, we see the Swedish banking market as being very well-positioned to meet the increased international competition caused by the digital value chain structures:

- The sector is already among the most digitalized and cost-efficient in Europe
- Sweden has a strong tech sector
- Sweden has already a relatively free flow of information in banking, compared to European peers
Over the past two to three decades, the Swedish banking sector has been through a comprehensive digitalisation process. As a result, Sweden has one of the most digitalised banking sectors in Europe, cf. figure. This process has enabled a more efficient provision of financial services, eventually benefitting end-customers. We can broadly divide the resulting benefits into two main categories:

1) Streamlining analogue processes to cut costs

2) Digitalisation and more free flow of information has enhanced competition

We will go through these two categories on the two following pages.

Digitalisation has intensified competition and reduced costs in Swedish banking over the past decades

![Digital Banking Readiness Index](image)

Source: A.T. Kearney and EFMA global retail banking study, 2016
Benefit 1: Streamlining analogue processes to cut costs

In a number of ways, digitalisation has lowered the operating costs of financial service provision, which perhaps so far is the single greatest achievement of the digitalisation process. Four examples are given here:

1. **Digitalisation of existing analogue processes** and automatisation of manual processes in back-office operations have decreased operational costs.

2. **Modes of payment have shifted drastically** over the last decades from paper transactions towards digital payments by means of credit cards, e-commerce and mobile-based payments, thereby reducing the need for relatively expensive cash handling. For example, the number of E-Invoices has tripled since 2009, *cf. top figure*.

3. **Internet-based platforms** such as online net banking services allow customers to access and manage almost any aspects of their accounts instantly through self-service. This reduces time usage and delays in administrating personal finances for customers.

4. **Closing of branches** has reduced costs. Since 2009 the number of branches has decreased by 1/3, *cf. bottom figure*. This is possible due to the transition towards cashless economy and internet-based platforms (as described above), which reduce customer needs to visit physical branches. In addition, the kind of services provided at the branches has also changed. A lot of work previously done at the branches is now automated, which also lower costs.

As outlined in Copenhagen Economics (2019), the Swedish banks in general pass on their reduction in costs to customers in terms of lower prices. Thus, we expect that the above innovations have eventually paved the way for cheaper financing for Swedish banking customers.
Benefit 2: Digitalisation and more free flow of information has enhanced competition

In addition to lower operating expenses, we have identified three channels in which digitalisation of banking is likely to have intensified competition:

1. **Price comparison websites** have made it easier to compare prices of banking products. This enhances price transparency which lowers consumers’ search costs and generally promotes competition.

2. **Digitalisation of information is likely to have reduced barriers to switching and to add an additional bank** as it, to some extent, removes the information advantage of incumbent banks. As described in Copenhagen Economics (2019), asymmetrical information bias on the banking market means that an incumbent bank typically will hold customer-specific information, enabling a better credit risk assessment. This implies that a low-risk customer might not be perceived as a low-risk customer in a new bank (as important pieces of the credit information is missing), and will therefore not receive the same low price, discouraging customers from switching. In a less digitalised banking sector, the asymmetrical biases will be large as much of the information is obtained informally, e.g. through physical meetings, information on family situation, etc. However, in a banking sector, where almost all information necessary to conduct credit assessment is digitalised and thus available to all banks, the asymmetrical information bias is greatly reduced.

3. **Digitalisation of the switching process has also lowered the direct costs associated with switching.** Digitalisation has led to a lower degree of manual processing, i.e. the process of switching bank – or being serviced by an additional bank – no longer relies on people and paper to the same extent, cf. figure. This reduces the switching costs and makes the process less time consuming both for customers and banks. As a result, customers become more responsive to price differences between banks which intensifies competition, as established in Copenhagen Economics (2019).

![Monthly logins to digital channels by Swedbank's Swedish customers](source: Swedbank)

Source: A.T. Kearney and EFMA global retail banking study, 2016
How banking is changing now; new entirely digitalised processes

As described on the previous pages, the digitalisation process in Swedish banking has been on-going for several decades.

However, how digitalisation is impacting the banking market is changing these years. Up until now, the digitalisation has to some degree been a matter of digitalising existing analogous processes, making them faster, more efficient etc. Currently, we see that the financial industry is starting to exploit the possibilities of entirely new processes and means of consumption enabled by digitalisation, gradually changing the very structures of the financial sector. These developments are also seen in other industries and part of what is referred to as the “fourth industrial revolution”, covering a long range of innovations, e.g. genetics, artificial intelligence, robotics, nanotechnology, biotechnology, to name just a few.

These innovations are likely to have a far reaching impact on the banking sector. In the remaining part, we discuss how this development could impact the competitive dynamics.

Concretely, we have identified three ways in which these new digitalised processes will impact the competitive dynamics in banking:

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We will go through each topic in the following.

Our vision is to become the trusted provider of our customers. We will stop producing our own products, because we can't have conflicts of interest. We will provide a platform and pick the best products in the world to our customers.

– Francisco González, CEO, BBVA
The value chain within banking is opening up

Digitalisation is currently starting to open up the entire value chain within banking – a process denoted “open banking”. This process has the potential to fundamentally change the competitive dynamics in banking.

The value chain is likely to open up as new technologies embedded in the business platform enable connections between different parts of a value chain, e.g. through open APIs; something that has not been possible until now. In addition, recent innovation allows for a seamless flow of information between the different parts of the value chain.

This will in turn allow for each operator to specialise in certain parts of the value chain perhaps within certain products.

The exact division will vary between different products and countries and it will then be up to the individual banks to decide where (and how) they see most value for them in this new value chain.

Compared to traditional services production, we see this new value chain as superior for two reasons: 1) The specialisation will give rise to an increase in economies-of-scale, providing more cost-efficient products for customers. 2) It allows orchestrators of this new value chain to pick the most effective producers within each part of the value chain.

Below, we give a generic example of what an open value chain in banking could look like, also depicted in a figure on the next page.

i) The customer platform is what most customers would understand as “their bank”, i.e. the platform where they get their financial services from. This could either be a bank, or a platform specialising in aggregating different service providers in one interface. This part of the value chain is entirely focused on customer needs and is responsible for all customer interaction. However, the platform is not responsible for producing the needed services, but will pass on requests of the customer further down the value chain (see below). To attract customers, it is vital to have an easy-to-operate interface providing all-encompassing financial products and services so frictions for customers are limited. The capabilities needed are thus behavioural science and customer research combined with effective marketing.

ii) A market place provider links customers with financial service producers, and transmits the financial data needed in order to make credit assessments in the core banking system. This requires handling of big data analyses, open API management and data processing, while ensuring national compliance transmission between countries.

iii) In the core banking system, the financial products and services are linked to a regulated balance sheet and produced with low costs due to economies of scale. This part of the value chain holds the banking book and license, and thus takes on credit risks. As a consequence, proper risk and capital management is key.

iv) This part provides the digital infrastructure, e.g. handling of data, mainframe systems and developing digital infrastructure for customers, or digital services.

CASE: STABELO AND AVANZA

The internet bank Avanza is currently in partnership with the fintech company Stabelo; an example of open banking in practice. The aim of the cooperation is to distribute mortgage loans to broader customer groups, through Avanza’s platform, without impact on Avanza’s balance sheet. This is achieved, as the loans are directly on the balance sheet of pension funds, thus circumventing traditional banking balance sheets. As a result, there are no traditional banking capital requirements for Stabelo, they are instead regulated as an Alternative Investment Fund.

Using our generic open banking value chain depicted on the next page, Avanza provides the “customer platform”, the pension funds provide the balance sheet, i.e. the “core banking service” and Stabelo is the “market place provider” between Avanza and a pension fund, i.e. it links customers on the Avanza platform with the balance sheet of the pension funds. Stabelo also carries out credit assessment and can thus be seen as also taking part of the “core banking” functions.

The example illustrates a core principle of open banking; the client is served by several providers where each provider has a defined task throughout the value chain, specialising in core expertise.

1) See for example Oliver Wyman (2016, 2017 & 2018)
Illustration of how the value chain could open up in banking

The figure below illustrates one of many possible fragmentations; the value chain can look different for different products, providers, etc.

- Provides a seamless flow of the best financial services
- “Owns” the customer

- Links customers with financial service providers.
- Transmit data

- Has the banking book and licence
- Takes on credit risks

- Provides digital infrastructure
- Enhances and initiates core banking functions
Open banking puts competitive pressure on the entire value chain

In the traditional closed value chain setup, banks only compete on the end product e.g. deposit service or credit product offered to the customers. With the gradual opening up of the value chain, there will start to be competitive pressure in each part of the value chain:

Using our generic open banking value chain depicted on the last page, this carries over to:

<table>
<thead>
<tr>
<th>Customer platforms</th>
<th>• Competing on servicing the needs of customers</th>
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<tr>
<td>Market place providers</td>
<td>• Competing on most efficiently matching customers with the best products.</td>
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<tr>
<td>Core banking</td>
<td>• Providers competing on providing flexible banking products at the lowest possible costs.</td>
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<tr>
<td>Digital infrastructure</td>
<td>• Providers competing on operating software services most efficiently etc.</td>
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**Before**

- End product
- Customer platform
- Market place
- Core banking
- Digital infrastructure

**Now**

- End product
- Customer platform
- Market place
- Core banking
- Digital infrastructure

- Competitive pressure
- No competitive pressure
Open banking could limit the possibilities for cross-selling

With open banking, the possibilities for cross-selling, i.e. selling an additional financial product or service to an already existing banking customer, can become more limited. Traditionally, banks compete quite intensively for certain products such as mortgages and payment services, whereas other products are less exposed and often sold through cross-selling, e.g. asset management, etc.

Open banking limits this as the customer platform will make sure that the most competitive products are provided to the end-customer, in every product category. And that the free flow of information limits informational biases. Consequently:

- There will be little advantage for “core-banking providers” in already having the customer in the banking book.
- Banks will no longer compete on providing the best package of services to customers.

Thus, each individual financial product and service will have to be best-in-class for it to be supplied on the market. Therefore, we also see it as likely that product manufacturers will become more specialised.

In other words, competition will move from being at an institutional level – i.e. the “choice of bank” – to being at the product level.

CASE: DEPOSIT SOLUTIONS

The German fintech firm ‘Deposit Solutions’ (partly fundraised by the Swedish investment company Kinnevik) provides an open banking platform for savings deposits, currently connecting banks from 17 eurozone countries.

In the recent years, the banks in Sweden and other European markets have payed negative interest rates on their deposits in accounts with the central bank.

Since the pass-through of negative rates to households is low, i.e. savers remain largely shielded from deposit rates below zero, the profitability of Swedish banks is adversely affected.

Deposit Solutions enables banks to outsource savers’ deposits to banks, which are in need of deposits and located in countries where rates have stayed positive, thereby avoiding to have these deposits on Western European banks’ balance sheets. This means that customers get positive deposit rates and banks avoid loss on providing deposits.

In terms of the generic open banking value chain, Deposit Solutions acts as a “market place provider”, linking client banks providing the “customer platform” and banks providing a deposit account, i.e. the “core banking service”, cf. figure p. 10.

Note that the solution has several limitations, e.g.:

- Banks cannot outsource all of their savers’ deposits because they must have a certain amount of deposits in order to comply with regulatory requirements such as the net stable funding ratio.
- Outsourcing deposits involves exposure to currency risk and it may be costly to carry out a proper hedging strategy, diminishing the profitability of the solution – in particular for Swedish banks with a floating currency towards the euro.

However, Deposit Solutions clearly demonstrates the potential benefits of open banking, and the solution has the potential to be generalised to assets and other types of liabilities in the future.
New regulation will push forward the development

During 2019, the revised Payment Services Directive – PSD2 – will be implemented. This will (together with the new data protection regulation act, GDPR) push forward the development of opening up the value chain in banking. Two elements of PSD2 are noteworthy:

1) PAYMENT INITIATION SERVICE PROVIDER (PISP): THIRD PARTIES CAN INITIATE ACCOUNT-BASED TRANSACTIONS ON BEHALF OF CUSTOMERS
PSD2 will allow third-party providers to initiate account-to-account transactions on behalf of the customer. This will allow customer platforms to initiate payments on the behalf of the customer. As such, the operator receiving the payment request from the client and the operator actually executing the payment does not need to be the same, thus enabling a divided value chain within payments.

2) ACCOUNT INFORMATION SERVICE PROVIDER (AISP): CUSTOMERS CONTROL THEIR OWN FINANCIAL DATA AND CAN GRANT ACCESS TO THIS TO WHOM THEY CHOOSE
PSD2 is also set to increase information sharing throughout the value chain in banking. Previously, banks needed to cooperate actively with third-party providers to enable an aggregated overview of a banking customer’s various accounts across different banks. With PSD2 (and GDPR), the banks will – by law – have to hand-out this information to third-party operators if approved by the customer.

EU POLICYMAKERS AIM AT GIVING NEW TECHNOLOGY FULL IMPACT
PSD2 differs from most new regulatory measures as it does not only regulate the current banking market but also incorporates likely future technological advances. In this way, the measure can be seen as a somewhat visionary legislation that pushes forward competition and innovation in the sector.

Consequently, banks can expect PSD2 and future directives to continuously be modified, while being implemented to ensure that the legislation will have the intended effect; the implementation of the measure is learning-by-doing for both banks and regulators.

In general, we see PSD2 as a result of a distinct aim of enabling current and future technological advances to have the full effect on competition in the banking sector. We therefore also see it as likely that PSD2 will be followed by new regulatory measures from EU policymakers, enabling a single digital market for financial services in the EU.

CASE: ACCOUNT AGGREGATION OF TINK

It is normal for Swedish banking to be customers at several banks, as explained in Copenhagen Economics (2019).

The Swedish company Tink provides account aggregation services, meaning that with the customer’s approval, a single provider can provide an overview of all the accounts of a given customer, rather than needing to log into several accounts.

As a result, Swedbank’s customers can, for example, get a complete overview of their different accounts at Swedbank’s web interface.

Currently, PSD2 allows for the extraction of information on payment accounts through open APIs. But with new regulation or cooperation from participating banks, the concept could be expanded to other products, e.g. mortgages, investment products, etc.

Using our generic description of an open value chain, Tink takes a position as a market place provider which builds connections between customer platforms (where you can see the accounts) and core banking providers (the banks, where the deposits are placed).
New data-driven customer-tailored products

Having shown how the value chain opens up, we will now provide three examples of data-driven customer-tailored products which impact the competitive dynamics in the banking markets;

**HUNT FOR NEW CUSTOMERS; USE OF BIG-DATA PREDICTION**

The enormous data sets already readily available at banks can together with machine-learning algorithms be used to predict individuals or companies who are likely to need a financial service. The idea is to use the predictive analytics to target their marketing towards these identified potential new customers and allowing for more targeted marketing than previously. As a result, big-data prediction makes marketing expenses more cost-effective. In terms of competition, the lower cost of targeted marketing campaigns can improve the business case of seeking to attract new customers.

**PRICES BETTER TAILORED TO INDIVIDUAL RISKS**

Data-driven credit assessment and automatisation of individual credit assessments mean that banks can single out cost of capital implied for each individual customer, based on the individual credit parameter, e.g. probability of default, loss given default and loan to value, etc. This enables more individually tailored offers, e.g. customers with a high credit worthiness can be offered relatively cheaper products and services than those with higher credit risk.

**INDIVIDUAL ADVISORY**

The digitalisation of information for each individual client and the fact that banks in general get access to more data on each customer allows for automatically generated tailored advice for customers.
Increasingly blurred lines in the financial sector

The boundaries of the financial sector could become more blurred as a result of the opened value chain – both because it becomes easier for financial sector players to offer new types of services and because it allows for new players to enter the financial sector:

**BANKS CAN MORE EASILY OFFER PRODUCTS NOT WITHIN THE TRADITIONAL BANKING SPHERE**

Customer platforms focus on servicing the financial needs of clients. This does not need to be limited by what is currently within “core banking”. As such, the boundaries of what is offered by customer platforms follows “customer logic”, not banking balance sheet logic. Insurance and asset management are obvious candidates and are already on the plate at most banks. But it could easily extend to other areas, related to financial decisions, e.g. real estate services. Or personal financial analysis to come up with recommendations, e.g. electricity provider, etc.

**BIG TECHS ARE LIKELY TO MAKE THEIR ENTRANCE TO BECOME CUSTOMER PLATFORMS**

Big Techs, such as Google, Apple, Alibaba and Amazon are currently embracing financial services, e.g.:

- The payment service Apple Pay is introduced in Scandinavia. Google pay and Samsung pay is also on the market, however not yet in Scandinavia.
- Amazon has started credit provision for SME (so far only in the US).
- Alibaba’s Alipay is already a big player in payments in China and beyond.

In the past ten years, the Big Tech companies have been enormously successful in servicing the mass market through their massive customer bases. Some of the Big Techs have started to transfer this success to banking and offering financial services for their customers. Using our generic open banking value chain depicted on page 10, it seems most reasonable that BigTechs provide the “customer platform” given their competitive and comparative advantage within servicing the mass market and focussing on client experience. As such, banks that seek to become customer platforms could see themselves competing with Big Techs.

Conversely, balance sheet management and credit assessment, i.e. “core banking” services, are relatively far off the established competences of BigTechs and therefore unlikely to be an area of interest.
We expect the Swedish banking sector to gain from increased international competition

**CAN DIGITALISATION PROVIDE THE NECESSARY PUSH FOR A SINGLE EUROPEAN BANKING MARKET?**

A single digital market within finance is a long-term goal of the EU Commission. A fully digitalisation and segmentation of the value chain within finance can prove to be the steps needed in order to realise this goal as physical proximity matters little when services are digitalised. The main obstacle in this regard is the enduring existence of different legal and regulatory compliance standards in the various EU member states.

Consequently, we expect the internationalisation of financial services to happen gradually; first, national “open banking” pulling various services from national product manufacturers, then Nordic competition among countries with relatively similar cultures and structures on the banking market and legislation. We still believe that it will take some time before competition within banking becomes fully European within all services.

The degree of internationalisation will also vary greatly between different financial services and between different business lines (retail, SME etc.). Corporate banking is already quite international, with large companies shopping among large banks in Europe to obtain the best financial offers.

In retail, we have on the one hand payment services, which are very generic and can easily be supplied from abroad, and on the other hand the Scandinavian mortgage market, where the collateral is physically tied up in a given country, with country-specific collateral rules, hence having strong legislative barriers.

**SWEDISH BANKS COULD GAIN FROM INCREASED INTERNATIONALISATION**

We see the Swedish banking market as being very well-positioned when it comes to meeting the increased competition caused by the digital transformation for at least four reasons:

1. **DIGITALISED:** The Swedish banking market is one of the most digitalised banking markets in Europe, which will ease the switch to open-banking platforms for Swedish banks.

2. **STRONG TECH SECTOR:** Stockholm has already become a centre for new innovation in FinTech. This constitutes a great opportunity for Swedish banks to team up with FinTech players to improve customer experience.

3. **FREE FLOW OF INFORMATION:** One of the challenges that open banking poses to the incumbent sector is that a freer flow of information removes the advantage of providing loans to customers already on the banking book. Swedish banks are already prepared for this as most relevant information for credit assessments is publicly available today.

4. **COST-EFFICIENT:** As described in Copenhagen Economics (2019), the Swedish banking sector is one of the most cost-efficient in Europe in terms of operational costs.

Furthermore, and maybe more interestingly, the strong market trust in Swedish banks means very low funding costs, which will be a big advantage in “core-banking” services. This trust has been built up over many years and is not easily copied; for an innovative new player, it is possible to compete with the digital infrastructure of the Swedish banks, but e.g. Handelsbanken’s 145 years of non-default history cannot easily be copied by new entrants, being the FinTechs or Big Techs.

Given Sweden’s strong initial position when it comes to both digitalisation and core banking, we primarily see the transformation as a great window of opportunity for Swedish banks and expect the sector to generally stand to benefit from a greater internationalisation of the banking markets.

Thus, we see the efficient and robust Swedish banking system as a great export potential for Sweden, especially in areas of finance, which have so far had little exposure to international competition, such as SME and retail finance.

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1 | See Copenhagen Economics (2016)
Regulatory implications: Important that financial regulation provides a level playing field across different platforms and countries

FINANCIAL REGULATION NEEDS A FUNCTIONAL FOCUS

The structures of finance are undergoing a transformation, and it is important for financial regulation to adapt to ensure a level playing field between different players. Currently, regulation focuses primarily on the institutions providing the services. However, this approach becomes problematic with new entrants on the financial markets that do not fit into the classic definition of a bank, i.e. they do not have a banking balance sheet or banking license. Two illustrative examples are given below:

Stabelo: The business model of Stabelo completely circumvents banking balance sheet. The credit is instead placed on the balance sheet of major pension funds, and in regulatory terms is regulated as an alternative investment fund. One of the reasons why they can do this is that they have eliminated many of the risks that banking balance sheet normally handles; there is limited maturity and interest rate mismatch and any credit loss is directly transmitted to the balance sheet of the pension funds, i.e. Stabelo cannot default. The risks are instead handled on the balance sheet of the pension funds through Solvency II. As such, there is nothing dubious with the business model of Stabelo. Nevertheless, the case begs the question, whether the same risks were handled similar through banking regulation, i.e. CRR/CRDIV? Are the two regulatory regimes calibrated to identical risks with the same regulatory requirements? Most likely not.

P2P lending: Some FinTech companies transmit funds directly from creditors to customers in need of funding, called P2P lending. Again, they merely act as a market place provider (a bit like AirBnB for finance) and will consequently not be regulated like banks. However, their credit transmission services can still have a destabilising financial impact if several borrowers default simultaneously, leading to losses for creditors.

As illustrated by the two examples above, financial regulation needs to move from an institutional focus to a functional focus. In the FinTech example, what is important is that they transmit funding and thereby give rise to a financial systemic risk for society – despite not being banks (in the traditional sense).

LEVEL PLAYING FIELD ACROSS PLATFORMS

A more functional focus in banking does not – by any means – imply deliberately hindering the entry of new players on the financial market. This can boost consumer welfare through innovation, increased efficiency and flexibility.

The point is that the choice of platform should be made by consumers and not given by regulation, and it is therefore important that regulation provides a level playing field across different platforms. It is critical to avoid a situation where the choice of consumers is merely a result of regulatory arbitrage between platforms.

THE INTERNATIONALISATION OF THE FINANCIAL MARKETS CALLS FOR HARMONISATION OF FINANCIAL REGULATION

As described above, open banking could be the transformation that brings real international competition to the European banking market. Therefore, it is becoming increasingly important for regulators in the various EU countries to harmonise regulation and ensure a level playing field internationally. In a fully digitalised financial sector, where margins are low, tough capital requirements between two countries can easily come to determine from which country the credit is provided from.

Sweden has seen one of the biggest increases in capital requirements in the EU since the financial crisis, which could prove to be problematic for the competitiveness of the Swedish financial sector in the years to come. As such, higher capital or liquidity requirements in a given country could merely be a competitive disadvantage that pushes credit provision to less regulated countries, and has little or no effect on financial stability.

Financial regulation should transcend a time-bound architecture. This could be done by regulating the underlying, and thus less time-dependent, economic functions of the financial system.

- Steven L. Schwarcz, Duke University

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1) See Schwarcz (2014)
2) See also Copenhagen Economics (2016) for a discussion of how digitalisation increase the need of a level playing field internationally.
2 REFERENCES
A.T. Kearney and EFMA (2016): *Global retail banking study*

Copenhagen Economics (2016): *Wage tax on a rapidly changing Swedish financial sector*

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The Global Competition Review (GCR) lists Copenhagen Economics among the Top-21 economic consultancies in the world, and has done so since 2006.

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