FAOS

187

The digital transformation of financial services markets and industrial relations

The case of Danish FinTech

Anna Ilsøe & Trine P. Larsen

April 2022

ISBN 978-87-93320-53-6

Employment Relations
Research Centre

Department of Sociology
University of Copenhagen
Øster Farimagsgade 5
DK-1014 Copenhagen K
Tel: +45 35323299
Fax: +45 35323940
faos@sociology.ku.dk
www.faos.dk

DEPARTMENT OF SOCIOLOGY
UNIVERSITY OF COPENHAGEN

Contents

1. Introduction to the Danish case[1]

In this report, we present the findings of the Danish case study, examining the FinTech development in Denmark. The Danish study draws on desk research as well as interviews with key actors in the Danish banking sector and FinTech companies as well as with representatives for the social partners in the sector. We have interviewed informants representing five different groups of actors about the development of the Danish FinTech industry, the role of ICT as well as emerging trends of social dialogue (see *Informants on FinTech in Denmark* below). All interviews, 10 in total, have been recorded and transcribed or documented via extensive notes, before we analysed the text using a thematic coding strategy.

Informants on FinTech in Denmark

- Unions: The President and the Vice president of The Financial Services Union Denmark (Finansforbundet)
- Employers' Associations: The director and Vice director in The Danish Employers' Association for the Financial Sector (FA)
- Tech lab directors: The director of Copenhagen FinTech Lab, the director of Symbion, the director of The Camp
- Directors of FinFech companies: The CEO/CRO and the COO of Lunar Bank; Head of marketing at Nord Investments.
- Data companies: Chief consultant at Bankdata.

The report is divided into six sections. First, we introduce the key actors in the Danish banking and finance sector and briefly describe the main features of the workforce in the sector. Afterwards we present the size and composition of the Danish FinTech industry. These two first sections mainly draw on desk research and present important background information. Based on the thematic coding of our interviews, we identified three common themes across the interviews, which we explore in the following three sections: The role of tech hubs, Partnerships between traditional banks and FinTech companies and Employment relations in Danish FinTech. The final section concludes with a summary and reflections for further studies.

[1] This report forms part of the larger comparative report Bengt Larsson and Bertil Rolandsson (eds.) (2022): The digital transformation of financial services markets and industrial relations – Exploring the FinTech development in Denmark, Estonia, the Netherlands and Sweden. Gothenburg: University of Gothenburg.

2. Key actors on the Danish banking and finance market and workforce composition

The Danish banking sector is characterized by a few large banks (with Danske Bank and Nordea as the largest players) and four Danish mortgage banks (Realkredit Danmark, Nordea Kredit, Totalkredit and Jyske Kredit). In recent years, many smaller and larger banks have merged, whereby there today are around 60 banks in Denmark.

In recent years, there has been a shift in the workforce composition in Danish banking and finance, as job tasks have changed and new technologies have been introduced. In 1998, skilled workers dominated the workforce in the sector (60 percent of all workers), whereas low-skilled and unskilled workers (23 per cent) and highly skilled employees (7 percent) made up smaller segments of the workforce. In 2018, 25 percent of all employed within the banking sector were highly skilled workers with university degrees, while 32 percent were skilled employees and 17 percent lower skilled employees (FA, 2019a). In addition, 46 per cent of all bank employees are women and there is a slight overrepresentation of older workers aged 50+ years within the Danish banking sector (FA, 2020; 2019b).

3. ICT as a challenge and opportunity within the sector

The Danish banking sector faces different challenges. ICT investments and developments are considered a main challenge among both larger and smaller banks – but often for different reasons (see Rolandsson et al., 2020; Shapiro 2018a). Whereas the large players like Danske Bank and Nordea can afford their own ICT departments (either in-house or as outsourced entities), this is not the case among smaller banks. Hence, the SMEs in the Danish banking sector have joined forces and run four data companies (BEC, SDC, Bankdata and JN-data), which deliver all ICT services and development. Some of these were founded already in the 1960s (BEC, SDC and Bankdata), whereas others were founded shortly after the Millenium (JN-data). For instance, Bankdata is owned and run by nine Danish banks to which they deliver data service, develop self-service solutions for online banking and support compliance measures (See *Case 1: Bankdata* below).

The larger banks have large ICT departments in-house that support their data services. However, one of the main challenges experienced by larger banks are difficulties concerning innovation and research development in-house due to various regulatory constraints. There are several Danish examples of banks outsourcing such research and research initiatives – or partner up with smaller FinTech companies who are responsible for the innovative part of various projects. An example hereof is the recent development and implementation of the app-based payment solution Mobile Pay, which now dominates the market at least in Denmark. Mobile pay was developed by an outsourced entity from Danske Bank called Mobile Life.

Case 1: Bankdata

Bankdata is a large financial ICT research and development company in Denmark with 750 employees. It was founded in 1966 and is owned by nine Danish banks, which are also customers of the company. Bankdata provides complete ICT solutions, including the development of network and mobile banking, credit and advisory tools, support and security, for all nine banks. This is especially an advantage for the smaller banks, which cannot afford to do this on their own. The banks actively participate in the planning and development of Bankdata's activities. In recent years, the focus of the company has been on creating agile organizational processes, where new ICT solutions are developed in close co-operation with individual banks and user-experienced staff. This has been a strategy to solve the dilemma between sharing ICT solutions and meeting individual demands among the client banks. The client banks especially request new digital self-service solutions, whereas AI and machine learning based solutions remain limited. Another focus has been to handle new demands in relation to compliance. This has led to new competence and skill requirements. Although ICT specialists continue to represent most staff, a larger share of the employees now hold a university background within law, economics, business or social sciences.

Read more: https://www.bankdata.dk/en

4. The size and composition of the Danish FinTech industry

The Danish FinTech industry has grown rapidly within the last five years and has been accompanied with a rapid job growth and substantial investments (see *Developments in Danish FinTech 2015-2021* below). In 2020, the number of FinTech companies in Denmark reached 280 – corresponding to an increase of 144 per cent since 2016 (Business Insights, 2021; Copenhagen FinTech Policy, 2021). In addition, more than 2.300 jobs were created in the sector during the last five years. Also, investment funding in FinTech has increased. In 2019, Danish FinFech companies received the largest chare of venture capital among all tech companies in Denmark (Kulager, 2020).

Developments in Danish Fintech 2015-2021

- The number of Danish FinTech companies grew from 71 to 280
- New jobs created through FinTech in Denmark have increased from 700 to 2.300
- The number of partnerships between FinTech and established companies have grown from 10 to 120
- Investments in FinTech companies have grown from DKK 95 million to DKK 3,529 million

Source: Copenhagen FinTech Policy (2021)

Danish FinTech companies operate within different areas. The business organisation Danish FinTech categorises the Danish start-up companies within 13 domains (see Figure 1). These include: Regtech and Security, Corporate Infrastructure, Digital Banking, P2P-Lending, Pension and Wealth-tech, Business Solutions and Platforms, Payments Processing and Networks, Insurtech, Cryptocurrencies, Money Transfers, Accounting and Payroll, Data Analytics Providers and Direct Lending. In 2020, the three largest domains were Business solutions and Platforms, Payment Processing & Networks, and Data Analytics Providers. Around 40% of all FinTech start-ups were active in one of these domains. The fastest growing domains are Corporate Infrastructure and Cryptocurrencies. We also find Techfin companies in Denmark. The largest is Coop Bank established in 2013, which is a banking service developed by one of the largest retailers, Coop Danmark. Today, COOP Bank has more than 150,000 customers and operates via more than 1,100 retail shops[2].

As new actors enter the FinTech stage, there is a continuous differentiation of services, but also constantly new collaborations between the different actors that shape the Danish FinTech development. In this report, we have been able to identify three prime leitmotivs or themes characterizing this development: The role of tech hubs, Partnerships between traditional banks and FinTech companies and employment relations in Danish FinTech. The following section present the analysis of these three themes.

[2] https://coopbank.dk/om-coop-bank/

Figure 1: Overview of the Danish FinTech Start-up Scene

Source: Copenhagen FinTech. Replication approved by Copenhagen

5. The role of tech hubs for Danish FinTech: facilitator and relation maker

The Danish market for FinTech companies is mainly organized around a number of tech hubs. An important example is the hub called Copenhagen FinTech Lab, which was created by the organization Copenhagen FinTech in 2016[3]. The Copenhagen FinTech Lab is a co-working space housed by The Financial Services Union Denmark (Finansforbundet). It was set up by the social partners within the Danish finance and banking sector and supported by a wide range of partners, including Danish and Nordic banks and global players in finance. The aim of the lab is to ”develop Copenhagen as one of the leading FinTech Hubs in the global financial services industry by supporting and catalyzing the next era of technology-led corporate and start-up innovators”. Copenhagen FinTech Lab has attracted a lot of attention and often welcome international delegations, who visit the hub to get an overview of the important tendencies in the FinTech landscape. Finansforbundet and the other lab partners have co-founded the lab and have used it to get familiar with the new FinTech players and to survey new competence and skill requirements in finance.

Today, Copenhagen FinTech Lab houses around 50 FinTech start-up companies, but more than 120 companies have been affiliated with the lab since it was established. Many affiliated start-up FinTech companies have left the hub and evolved into larger successful finance companies. The FinTech companies focus on various financial services from P2P-Lending (for instance Lendino and Kameo) to Pension and Wealthtech (Nord.Investments and Grandhood), Payments Processing and Networks (Aryze), Crypto-currencies (Cyroinvest) and many more. Nord.Investments[4] is one of the successful examples of a start-up FinTech company, which has experienced rapid growth and expansion as part of the lab. Today, the company has 11 employees and 2,650 customers. The company co-operates with a larger Danish tech bank, Saxo Bank, which deliver important infra structure like banking licenses and compliance competences. Nord Investments wants to expand into other countries inside and outside the Nordics and have started to explore such potential markets (see *Case 2: Nord.Investments* on the next page).

---

[3] https://copenhagenfintech.dk/
[4] https://www.nord.investments/

Case 2: Nord.Investments

NORD.investments is a digital investment advisor that offers a completely digital investment experience, i.e. they operate in the domain of Pension and Wealthtech. It was founded in 2016 and expanded fairly quickly. During the first years, the company was situated at Copenhagen Fintech Lab, but later it consolidated itself outside the lab in central Copenhagen. Due to the effects of the corona crisis on the market as well as the lack of day to day networking outside the lab, they decided to re-integrate in Copenhagen Fintech Lab in late 2020. Today, the company has 11 employees and 2650 customers and facilitate investments of more than 650 million DKK, corresponding to 87 million Euros. Most of the employees are young people with tech or business backgrounds, however, they have also recruited more experienced workers with legal competences. The company cooperates with a larger Danish tech bank, Saxo Bank, which works as their infrastructure and supply access to licenses. Saxo Bank has a partnership strategy for cooperating with digital start-ups. Nord.investments wants to expand into other countries inside and outside the Nordic countries, but here, they also depend strongly on a larger partner bank, which may help to define their choice of new foreign markets. National variations are significant with regards to rules and regulations, and therefore they need legal support in markets outside Denmark. In May 2021, Nord.Investments went on the stock exchange in Denmark (Ohmeyer, 2021).

Read more: https://www.nord.investments/

There are also examples of successful FinTech start-ups emerging outside the Copenhagen FinTech Lab. In 2015, the Digital Banking company Lunar Way was founded by CEO Ken Villum Klausen in Århus. He wanted to create an app-based and mobile bank solution inspired by social media and targeting the young customer segment. The company grew quickly and has received a number of larger investments ($53 million so far). In 2019, they obtained a European Banking license and changed their name to Lunar Bank[5]. They plan to expand into the Nordic countries and are already operational in Denmark, Norway and Sweden (see *Case 3: Lunar Bank* on the next page).

[5] https://lunar.app/dk/

Case 3: Lunar Bank

In 2015, the company Lunar Way was founded by CEO and partner Ken Villum Klausen (CEO). They wanted to create an app-based and mobile banking solution with SOME elements and a strong visualization of services. During their first years of operation, they targeted young customers (millennials) and relied on large portions of investor funding. Today, they have more than 300 employees (40 in tech positions) and more than 250.000 customers across the Nordic countries.

During their first years, they established a partnership with Nykredit Bank. Nykredit Bank shared their infrastructure with Lunar Way – including the banking license – whereas Lunar Way focused on delivering innovative digital solutions and customer experiences. However, it seemed increasingly difficult to make the digital part of the partnership work. Nykredit Bank is founded on a more traditional digital solution well-situated in one of the data companies, whereas Lunar Way utilizes a cloud-based technology. Accordingly, Lunar Way decided to aim for their own banking license, which would allow them to collaborate directly with data companies and other partners and offer all services that a traditional bank offers. An important part of this strategy was also to keep (young) customers in-house, when they reach an age where they want to buy their own home.

In 2019, Lunar Way became Lunar Bank (with a banking license), which has accelerated the growth of the company. They have also expanded into the Nordic countries and are now active in Sweden (since 2020) and in Norway and Finland (since 2021). In 2021, they bought the Swedish Fintech company Lendify, which also expanded the company. They consider the Nordic market profitable for digital banks and have a clear Nordic market strategy.

Today, Lunar Bank cooperate with many partners in the bank sector to offer a variety of services. They cooperate with Saxo Bank to offer investment opportunities, with Tryg on insurances, with Nordic Api Getaway on account information, with Subajo on subscriptions and Nets on transactions. Furthermore, they cooperate directly with a data company to obtain clearing. Their collaboration with the data company involves challenges, as the data banks often rely on older codes in their digital systems. As mentioned, Lunar Bank utilizes a cloud-based technology (Amazon web service) and is built around micro-services, where codes can easily be changed in single services without changing codes of the others. This is very different to the digital structure at the data companies, where the code limits the scope and depth of innovation according to Lunas experiences.

From the very beginning, the technology and digital structure has impacted recruitment processes. Lunar Bank especially seeks to hire younger people outside the banking sector with a quest for innovation and problem solving as well as tech competences. Typically, they hire students part-time and many of them shift to full time positions in the company after graduation. However, after obtaining the banking license, Lunar Bank has also started to recruit more established profiles from the banking sector with competences within compliance and regulations, as they need to have these competences in-house.

Read more: https://www.lunar.app/dk/privat

6. The Camp and Symbion – other important FinTech hubs

In 2016, the insurance company Tryg set-up a hub called The Camp[6] for Insurtech, FinTech and other start-ups in Denmark. The co-working space houses more than 20 start-ups within various business areas and is located at Tryg´s headquarters in Copenhagen, which offer office space for 185 start-up workers. More than 100 companies have been through the hub. The aim for Tryg with housing and coordinating The Camp is to facilitate a dialogue between innovative Insurtech start-ups and the core business of Tryg to stimulate the development of the core business and facilitate partnerships.

Recently, the Camp also launched a series of open virtual conferences called Vertical Tracks, where start-ups and established players in Danish insurance industry can meet external experts and start dialogues on the future of finance. In 2018, together with a number of founders, Tryg established the Insurtech solution Undo, which is targeted towards young people. Other notable Insurtech companies in Denmark are the first mover Scalepoint (founded in 2001) and Penni, which has collaborated with the insurance company Topdanmark, as well as Coop insurance (in collaboration with the retailer Coop Denmark).

Another important tech and FinTech hub is Symbion[7], which is one of the largest start-ups hubs in Denmark housing 650+ companies in four locations. Symbion started as a hub for start-ups in biotech and medtech, but over the years it has increasingly included a number of FinTech companies. For instance Qred Erhvervslån[8], which operate in the domain Direct Lending, as well as Astro.io[9] and AI Alpha Lab ApS[10], which are Pension and Wealth-tech solutions. Symbion offers a wide range of services for start-up companies and facilitate collaborations between FinTech and biotech.

6. Partnerships between traditional banks and FinTech companies: innovation, scale and technological challenges

According to Copenhagen FinTech Lab, we find more than 100 partnerships between FinTech companies and traditional players in finance and banking in Denmark today. The partnership construction is core in the FinTech industry as well as in traditional banking and finance. A core argument for joining forces seem to be that digital innovation works better outside the work organization and the tech infrastructure of the traditional banks, i.e. in a smaller FinTech company or in an outsourced entity as they often appear more agile than traditional banks. The stories and trajectories of Mobile Pay, Coop Bank and Coop Insurance as well as The Camp reflect this point. However, our interviews with FinTech companies and stakeholders of Copenhagen FinTech Lab also demonstrate that traditional banks can offer FinTech start-ups access to important infrastructure in the form of access to data companies, bank licenses and expertise within compliance and regulation. Moreover, the traditional banks

[6] https://thecamp.io/
[7] https://symbion.dk/
[8] https://www.qred.com/da-dk/hjem
[9] https://astro.io/
[10] http://www.aialphalab.com

have often larger sums to invest in new start-ups, which can speed up growth. All these factors are important, when FinTech companies seek to scale up in a national market or enter new markets internationally. In sum, the partnership between traditional finance companies and FinTech start-ups seem to be a win-win situation for both parties involved.

For instance, Nord.Investments developed a partnership with Saxo Bank, which has a banking license, which is required to facilitate an end-to-end investment experience. For Nord.Investments, the access to important infra-structure in a registered bank was the driver for seeking a partnership. The Head of Marketing explains:

> *"You meet us, Nord.Investments, in the app, and when you invest, your deposit is safe with Saxo Bank. We pay Saxo Bank to use their infrastructure. They do not own part of us, but we have a close partnership with them. We provide the investment advice and customers deposits are with Saxo Bank. We have a market strategy to expand in the Nordic countries, and here we depend on a partner bank in the new market. We have both been looking at which markets Saxo Bank has a strong presence, but we are also exploring other options."*

Nord.Investments has chosen Saxo Bank as their partner, because of their new technological infrastructure. This strategy is similar to other FinTech companies, which have struggled when collaborating with banks with older technological infrastructures. Also, Saxo Bank has an explicit partnership strategy in relation to FinTech start-ups and cooperate with several FinTech companies. According to Nord.Investments´ experiences, large parts of the Danish banking sector utilize old-fashioned technologies – which makes collaboration between innovative start-up FinTech companies and traditional banks challenging. In fact, Head of Marketing at Nord.Investments explained that it took them some time to identify the right partner, because it was decisive to them that the partner bank had specific digital infrastructures:

> *"There are not many banks with an available API, which is important to provide a 100% digital solution. Many banks deliver data in an excel sheet. When we chose our current partner bank, we wanted one with an API, and the only one available at that point in time was Saxo Bank. Before we cooperated with Saxo Bank, we received an excel sheet every morning, with updated data on all our customers. That is the reality in the banking sector. This changed when Saxo Bank became our partner bank, because they have a modern digital infrastructure. This is also the reason why they have many partnerships with FinTech companies."*

Lunar Bank has faced similar experiences as Nord.Investments. Before Lunar Bank gained their own banking license, they had a partnership with Nykredit Bank. However, their cooperation involved various challenges due to differences in the technological infrastructure, which was also one of the reasons why Lunar Bank opted for their own banking license. The COO at Lunar Bank explains:

> *"Our original business model was very inspired by the tech scene, especially in Denmark, with a split between who owns the basic infrastructure and who is the service provider on top of it. We had to find a business partner who had their own banking license and had the basic infrastructure, and then we could concentrate 100 percent on products, services, the user experience, digital development, everything that the customers meet. Therefore, we established a collaboration with Nykredit Bank involving a revenue split. Although it was a really good collaboration, we also experienced limitations because we were bound by their infra-structure. Our technology is 100 percent cloud-based and it does not fit so well with the digital infrastructure at Nykredit Bank. Therefore, the idea came to get our own banking license. No one has done that for the last 10 years in Denmark. But then we get control with the choice of other partners and with our products. So our business model pivots in the process from being an infra-structure/service provider model, i.e. a partner bank model, to a technology company with a banking license, and that is very much what defines our DNA today."*

Although the partnership model is often considered as a win-win situation for both parties involved, it is also evident that the partnership does not come without challenges. It is especially the different digital infrastructure in FinTech companies vis a vis traditional banks that seem to cause trouble and tend to be considered a constraint by both the start-up and the traditional banks. Subse-quently, this may also impact the choice of partner bank as well as lead to start-up FinTechs change their choice of partnerbanks (Nord.Investments) or change their business model (Lunar Bank).

7. Employment relations in Danish FinTechs

In line with what is usually understood as a Scandinavian model of labour market regulation, wage and working conditions in Danish banking are regulated through collective agreements negotiated and signed by social partners at sectoral and company levels. The Financial Services Union Denmark (Finansforbundet) represents the employees within the Danish banking sector, whereas The Danish Employers' Association for the Financial Sector (Finans-sektorens arbejdsgiverforening, FA) represents the voice of the banks and other financial institutions. The collective agreement coverage is estimated to be around 80 per cent in the traditional banking sector, whereas it is much lower in new parts of the industry like FinTech and Insurtech (Jørgensen, 2011).

Danish social partners have strong traditions for collaborating in formal and ad hoc tripartite arrangements on various themes, including the issue of digitalization (Ilsøe, 2017). This is also the case in the financial sector. Both The Financial Services Union Denmark (Finansforbundet) and The Danish Employers' Association for the Financial Sector (FA) have participated in the SIRI Commission[11] (2018) focusing on among others on FinTech (Shapiro 2018b,c) and in the Competence Council[12] (2019) targeting the needs for new competences in finance and banking. In addition, unions and employers´ associations have initiated a series of joint initiatives such as the afore-mentioned Copenhagen FinTech Lab as well as large scale joint research and development projects. Health and safety at work in the age of digitalization is a core concern at Finansforbundet and FA, and they received 6 mill. DKK for a project entitled Digital Future Work Lab[13] from The Velliv Association in 2019. In this project, social partners in collaboration with researchers from The National Research Center for Work Environment (NFA) investigate mental health in digital work.

Digitalization was also a main theme during the most recent sectoral collective bargaining round within the Danish finance and banking sector (sector-level agreement 2020-2023) and was an integrated part of the bargaining results (Finansforbundet, 2020). For example, the employers pushed for a more flexible scheduling of working time and overtime, which are requested by many banks and finance companies working on digital innovations, including FinTech solutions. The new agreement allows for greater latitude of individual working time planning and a more flexible use of overtime at company level.

A recent initiative is Copenhagen FinTech Policy, which was founded by Finansforbundet, Finance Denmark, Insurance and Pension Denmark, Confederation of Danish Industries and Copenhagen FinTech. Copenhagen FinTech Policy tries to make parliament aware of recruitment challenges within Danish FinTech (Copenhagen FinTech Policy, 2021). According to Copenhagen FinTech Policy, one of the main barriers to growth in the sector is the lack of skilled workers. It is especially difficult to attract enough workers with the right tech competences. One of the reasons is the strict regulations in Denmark with regards to hiring foreign workers from outside EU.

8. FinTech employers´ association (AF) and the framework agreement for Fintech companies

In 2021, three larger FinTech companies formed an employers association for FinTech companies in Denmark, *Arbejdsgiverforeningen for FinTech* (AF), that have become member of the exiting employers association in Danish banking FA, *Finanssektorens Arbejdsgiverforening*. The three companies are Lunar Bank, Nordnet and P27 Nordic Payments Platform. Lunar Bank is a Digital Banking solution (described above), whereas Nordnet and P27 operate within the domains Pension and Wealthtech and Payment Processing & Networks, respectively. All three FinTech companies are active in several Nordic markets.

[11] https://ida.dk/om-ida/temaer/siri-kommissionen
[12] https://www.finansforbundet.dk/dk/nyheder/2019/vi-vil-uddanne-holdbare-medarbejdere/
[13] https://futureworklab.dk/

Simultaneously with the formation of AF, Finansforbundet and AF announced that they had concluded a framework agreement covering the three companies for next three years (Arbejdsgiverforeningen for FinTech (AF) and Finansforbundet, 2021). To our knowledge, this is one of the first sector-level agreements in FinTech, not only in Denmark, but also in the rest of the Nordic region and the rest of Europe.

The framework agreement, Rammeoverenskomst 2021-2023[14], covers many of the core topics typically addressed in a sector-level agreement on the Danish labour market: wages, working time, pension, maternity leave, further training, holiday entitlements and election of workplace representatives. Furthermore, the agreement includes a general agreement for rules and regulation on handling conflict of interests related to labour standards and procedures for enacting the system of arbitration and the labour court system. This was considered pivotal, as social partners in banking and finance are not members of The Confederation of Danish Employers (DA) and The Confederation of Danish Trade Unions (FH). Thus, their framework agreement is not covered by the confederal main agreement between DA and FH, which among others outlines procedures for conflict resolution in large parts of the Danish private sector. The framework agreement Rammeoverenskomst 2021-2023 can be signed by FinTech companies, who joins AF, and has 10+ full time employees.

The agreement by AF and Finansforbundet differs from most traditional Danish sector-level agreements, first and foremost due to its status as a framework agreement. Many important labour standards such as wage, working time and pensions that usually are set in most sector-level agreements are delegated to company-level bargaining. Only topics such as maternity leave and competence funds for further training are regulated with a higher level of detail in the agreement. However, FinTech companies who sign the framework agreement by AF and Finansforbundet are mandated to initiate company based negotiations on all issues. The framework agreement clearly states that these negotiations at company level should be conducted between the company and either elected union-affiliated workplace representatives or representatives from Finansforbundet. This can be characterised as a novel form of centralised decentralisation, at least in the Danish context, due to the mandatory obligations for local social partners to initiate and engage in collective bargaining (Due et al., 1994). We find similar mechanisms of decentralisation of collective bargaining in Danish manufacturing, however, here the level of detail is much higher in the sector-level agreement and local bargaining is optional (Due et al. 1994; Ilsøe 2012; Larsen and Navrbjerg, 2015). The opening statement by the employers' associations AF and the union Finansforbundet on the first page of their agreement reflects the unique character of their agreement: *"Arbejdsgiverforeningen for FinTech (AF) and Finansforbundet concluded this framework agreement in mutual understanding of the differences in local conditions across companies and among employees"* (Arbejdsgiverforeningen for FinTech (AF) and Finansforbundet, 2021).

[14] https://www.finansforbundet.dk/media/doqjebls/rammeoverenskomst-2021-2023.pdf

According to Lunar Bank, who was one of the driving forces behind the establishment of AF and the negotiations of the framework agreement, there were several reasons for enacting these steps. First, the need for structure around wages and working conditions increases when a start-up FinFech company grows into a medium-sized or large company. This has to do with organizational legitimacy internally among the employees and externally among customers and other collaborative partners. But it is also about saving time and bureaucracy in larger organizations and might be a signal of what other FinTech companies will choose to do in the future, when they scale up their business. The CEO at Lunar Bank explains:

> *"Well, I think, first of all, when you become as big as we are, then it is part of being a company in Denmark that you follow the rules of the game. We have an excellent labour market with collective bargaining rules that both sides follow. I think you have to support that. And the other thing is that even though we can easily recruit employees, we also want to offer them some more structured conditions. When you approach 300-400 employees, you cannot just run it like you were a start-up. Then it is a really good idea that you write some of these things down on paper, so everyone agrees on the rules. Then we do not have to sit and have salary talks with each individual, it is regulated by the agreement. In the end, we became so big that is was difficult to defend to the outside world not being part of an agreement."*

These reflections also relates to the fact that the finance and banking sector is one of the most organized sectors in Denmark according to agreement coverage and membership rates of unions and employers´ associations. According to Lunar Bank, it affects your image, if you do not join the system. The CEO at Lunar Bank underlines that this not only means to offer orderly conditions like the traditional players in the market but also a matter of taking responsibility for the system as a whole:

> *"The financial sector is probably one of the most agreement-heavy sectors in Denmark. We do not have many conflicts, but all companies are part of the traditional sector-level agreement. Accordingly, it is a little hard to defend to stand outside the agreement as the only player on the banking market. Both for ourselves, our employees and our partners in general. (...) Also, I think it is an obligation to support the societal development in a good direction, when you are a bank and look after other people's money. You must contribute to the societal contract. This is also why we wanted to form an employers´ association and a frame work agreement covering several companies instead of just nego-tiating a company agreement."*

However, it never seemed to be an option to join the traditional sector-level agreement for Luna bank, as they considered the existing sectoral agreement to be too detailed – especially with regards to working time. Once again, the company's CEO explain:

> *"It would be difficult for us to use the traditional agreements, which aims to regulate physical meetings with customers operating around a 9-16 schedule. Workers in Lunar have another mindset and a need for flexibility, and we as managers do not mind when or where you work as long as you deliver. Some of the traditional banks might think we got a slightly cheaper model with the framework agreement, but in fact wages are not the main issue for us today. Wages are core issues, when you are a start-up. You cannot pay market conform wages as long as you are only investor funded. But today the main issue is flexibility and to signal the values that are important for our employees."*

According to Finansforbundet, they entered negotiations of the FinTech framework agreement with the aim of regulating the FinTech industry via collective agreements. They are well aware that other aspects of collective organization remains limited within FinTechs, for instance union densities are low. However, Finansforbundet considers that the framework model includes flexibility gains that may attract some of the larger players in the market and have a positive impact of wage and working conditions over time. The President of Finansforbundet explains:

> *"We have a clear strategy to use the existing institutions like Copenhagen FinTech to cover the largest possible share of FinTech companies with collective agreements. In the initial phase this is even more important than to organize workers as union members. This we can do in the next phase. Also, we think it is better to develop a framework agreement that allow companies like P27 to keep their already established pension fund and negotiate a local agreement on that. We did not want to develop a cheap version of the existing sector-level agreement in banking, but to support and include the already positive developments in wage and working conditions. Also, we hope that the frame work agreement supports the definition of FinTech as an industry – a task already initiated by Copenhagen FinTech and Copenhagen FinTech Lab."*

The CEO of Lunar Bank underlines that this proactive strategy and attitude towards FinTechs at Finansforbundet has been an important fundament for where the Danish FinTech sector stands today. The vision of the union to develop, set- up and house Copenhagen FinTech Lab and build a collaborate model with all Danish banking actors around the lab is a core precondition to the partnership model being so widespread in Danish FinTech. This union-led approach with strong tripartite elements also seems to be a pivotal driver for the collaboration between individual FinTech companies in the new FinTech employers association AF.

Summary and reflections

The Danish banking sector is dominated by a few large players and a number of SMEs. The market for FinTech companies is mainly organized around the hub Copenhagen FinTech Lab, which houses around 50 start-ups and have facilitated more than 120 FinTech companies since the hub was founded in 2016. The Danish FinTech industry has grown rapidly in recent years. Today, we find more than 280 companies, 2,300 jobs and 120 partnerships between FintTechs and traditional banks. Investment funding has superseded 3.500 million DKK. FinTech companies operate within various domains with Business solutions and Platforms, Payment Processing & Networks, and Data Analytics Providers being the three largest ones.

A general characteristic for the start-up community within Danish FinTech is the partnership model. Many FinTech start-ups collaborate with established and larger companies within banking, finance, retail, insurance etc. This reflects the core idea by the union-led Copenhagen FinTech Lab, which is to stimulate partnerships between traditional players and start-ups to facilitate both room for innovation and infrastructure to support growth. The FinTechs tend to offer the technology, competences, agility and size that facilitate innovation, whereas the traditional banks offer banking licenses, legal support within compliance and regulation as last but not least funding to ensure growth. However, experiences by the case companies analysed in this study, Nord.Investments and Lunar Bank, demonstrate that these partnerships are not without challenges. A core challenges is that traditional players often use an older and more traditional technology, whereas FinTechs ofte rely on cloud-based technologies. This can lead to change in partnerships or business models. Finally, all finance companies and banks operating in Denmark (including FinTech companies) depend on collaboration with one of the existing data companies to obtain clearing (ability to transfer between accounts). However, these companies also tend to use more traditional technologies, which may challenge the collaboration.

Social dialogue and collective organization in Danish banking is strong with a general agreement coverage of 80 percent and high membership rates of unions and employers´ associations. This seems to have an impact on the larger and successful FinTech companies. In 2021, three of the largest FinTechs in Denmark formed an employers´ association for Danish FinTech companies (AF) as well as initiated and negotiated a framework agreement on different labour standards with Finansforbundet. One of the members of AF, Lunar Bank, who participated in the negotiations, explain that the internal and the external legitimacy on the market played a key role for taking this step. However, the agreement was also necessary to facilitate a clear structure on wages and working conditions and clear rules of the game within the organization, as individual bargaining tend to be time consuming and highly complex in a large organization. The union, Finansforbundet, sees the framework agreement as a lever to start covering the new FinTech industry with collective agreements, as this is a part of the Danish labour market that until this agreement operated on the outskirts of the Danish collective bargaining model. In many ways, the agreement can be seen as a result of the institution building via Copenhagen FinTech and Copenhagen FinTech Lab. However, it is also intended to be the first step on the way to organize workers in the future. As the framework agreement is very new, this study has been unable to evaluate the effects of the agreement and its implementation and further implications. Future studies should unfold the impact of the framework agreement for social dialogue at company level (Ilsøe 2012; Larsen and Navrbjerg, 2015). Do the FinTech companies negotiate locally as mandated and what are the effects of the local agreements in practice? Who negotiate on behalf of the workers, local workplace representatives or representatives from the union office? What is the legitimacy of such agreements - notably as the union density is low in FinTech companies compared to the union density in traditional banks – and how does this impact local bargaining results? Such studies would benefit from including worker interviews, which unfortunately was outside the scope of this study.

References

Arbejdsgiverforeningen for Fintech (AF), & Finansforbundet. (2021). *Rammeoverenskomst 2021-2023*. Retrieved from https://www.finansforbundet.dk/media/doqjebls/rammeoverenskomst-2021-2023.pdf

Business Insights. (2021). *The Growth Story of Danish Fintech lead by Fintech Mapping* [Website Report]. Retrieved from https://www.businessinsights.dk/copenhagen-fintech-uk/the-growth-story-of-danish-fintech-lead-by-fintech-mapping/

Copenhagen Fintech. (2020). *Copenhagen Fintech 2020*. Business Insights. Retrieved from https://www.businessinsights.dk/copenhagen-fintech/

Copenhagen Fintech Policy. (2021). *Digitale talenter efterlyse—9 anbefalinger til Folketinget* [Online Report]. Retrieved from https://copenhagenfintech.dk/documents/86/9_r%C3%A5d_til_foketinget__052021.pdf

Due, J., Madsen, J. S., Jensen, C. S., Petersen, L. K., & Martin, S. (1994). *The Survival of the Danish Model: A Historical Sociological Analysis of the Danish System of Collective Bargaining*. Copenhagen: DJØF Publishing.

FA. (2019a). *Udvikling i finanssektorens uddannelsesniveau*. København: FA. Retrieved from https://fanet.dk/noegletal/noegletal-udvikling-i-finanssektorens-uddannelsesniveau

FA. (2019b). *Kønsfordelingen i finanssektoren. København: FA*. Retrieved from https://fanet.dk/noegletal/noegletal-koensfordeling-i-finanssektoren

FA. (2020). *Aldersfordeling efter virksomhedstype. København: FA*. Retrieved from https://fanet.dk/noegletal/noegletal-aldersfordeling-efter-virksomhedstype

Finansforbundet. (2020). *Overenskomst 2020*. København: Finansforbundet.

Ilsøe, A. (2012). *The Flip Side of Organized Decentralization: Company-Level Bargaining in Denmark*. British Journal of Industrial Relations, 50(4), 760–781. https://doi.org/10.1111/j.1467-8543.2011.00875.x

Ilsøe, A. (2017). *The digitalisation of service work – social partner responses in Denmark, Sweden and Germany*. Transfer: European Review of Labour and Research, 23(3), 333–348. https://doi.org/10.1177/1024258917702274

Jørgensen, C. (2011). *Denmark: The representativeness of trade unions and employer associations in the banking sector*. Dublin: Eurofound.

Kulager, F. (2020, January 23). *Jeg har set ind i fremtiden. Bedre kendt som listen over storinvestorernes favoritvirksomheder*. Retrieved from https://www.zetland.dk/historie/sOPVqJay-aOZj67pz-18df9

Larsen, T. P., & Navrbjerg, S. E. (2015). *The economic crisis: Testing employee relations*. Economic and Industrial Democracy, 36(2), 331–353. https://doi.org/10.1177/0143831X13506050

Ohmeyer, K. (2021*). Nord Investments klar til børsnotering*: Aktiesalg overtegnet 68,3 pct. Børsen. Retrieved from https://borsen.dk/nyheder/investor/nord-investments-klar-til-borsnotering-aktiesalg-overtegnet-683-pct

Rolandsson, B. (Eds.) (2020). *Digital Transformations of Traditional Work in the Nordic Countries* (540th ed., Vols. 1–2020:540). Copenhagen: Nordisk Ministerråd. DiVA. https://doi.org/10.6027/temanord2020-540

Shapiro, H. (2018a). *Udviklingstrends i den finansielle sektor*. København: Finansforbundet. Retrieved from https://www.finansforbundet.dk/media/ly2fal1a/udviklingstrends_i_den_finansielle_sektor.pdf

Shapiro, H. (2018b). *Fintech, en international kortlægning*. København: SIRI Kommissionen. Retrieved from https://ida.dk/media/2500/fintech-_report_hsh_v2_final.pdf

Shapiro, H. (2018c). *Fintech i Fremtidens Danmark—Muligheder og Udfordringer*. København: SIRI Kommissionen. Retrieved from https://ida.dk/media/2501/fintech_rapport_2018_06.pdf