

Did the pandemic lead to structural changes in the banking sector?



External author:
Andrea RESTI



Did the pandemic lead to structural changes in the banking sector?

Implications for business models and supervision

Abstract

We discuss the main structural changes triggered by Covid19 in banking. Direct consequences include: the impact of the lockdown on remote shopping and telework, lower cash usage and a further shift towards innovative payment methods, the downturn suffered by the economy and bank borrowers. Indirect consequences (partly reinforcing pre-existing trends) include: the further development of payment services provided by non-bank competitors, an acceleration in bank digitalisation, a rise in cyber-attacks, a drop in the value of real estate collateral.

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AUTHORS

Andrea RESTI, Bocconi University

ADMINISTRATOR RESPONSIBLE

Kristina GRIGAITĖ

Marcel MAGNUS

EDITORIAL ASSISTANT

Ovidiu TURCU

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

The Economic Governance Support Unit provides in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact Economic Governance Support Unit or to subscribe to its newsletter please write to:

Economic Governance Support Unit

European Parliament

B-1047 Brussels

E-mail: egov@ep.europa.eu

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LIST OF ABBREVIATIONS

AMC	Asset Management Company
API	Application Programming Interface
BaaS	Banking as a Service
DORA	Digital Operational Resilience Act
EBA	European Banking Authority
ECB	European Central Bank
ERPB	Euro Retail Payments Board
GDP	Gross Domestic Product
HICP	Harmonised Index of Consumer Prices
ICT	Information and Communication Technologies
IT	Information Technologies
MiFID	Markets in financial instruments directive
NFC	Near Field Communication
NPL	Non-Performing Loans
OECD	Organisation for Economic Cooperation and Development
PCE	Personal Consumption Expenditure
PGS	Public Guarantee Scheme
PIN	Personal Identification Number
PSD2	Payment Services Directive 2 (Directive EU/2015/2366)
QR	Quick Response
SME	Small and Medium Enterprise

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EXECUTIVE SUMMARY

This note provides a brief discussion of the main structural changes that are likely to be triggered by Covid19 in the banking sector. We first identify three groups of *direct consequences* of Covid19 for banks: i) the long-term impact of lockdowns on customer behaviour and productive processes, ii) lower cash usage and a further shift towards innovative payment methods, iii) the downturn suffered by the economy, including bank borrowers. We then move to *indirect consequences* (partly due to pre-existing trends), including i) the further development of payment services by non-bank competitors, ii) an acceleration in the digitalisation of the banks' distribution processes, iii) a rise in cyber-attacks, iv) a drop in the value of some real estate collateral securing long-term loans.

Direct consequences - The volume of *remote sales* knew a remarkable increase, and so did the variety of goods and services being exchanged, including personal services that were hitherto considered unsuitable for e-commerce. As the focus of Internet-provided services shifted away from traditional IT- and office-related activities, new, unsophisticated buyers asked for a seamless user experience where product selection, customer identification, payments and online service delivery were as smooth and natural as they could be. Banks must embrace further digitalisation to meet this rise in customer expectations.

The lockdowns imposed during the first Covid19 wave have led to a rapid increase in *telework*, reaching segments that were previously unfamiliar with it: being largely based on information processing, the banking industry embraced smart working to a significant extent. Large European banks are now heading towards a "new normal" where 40% to 60% of the working week occurs remotely and new office layouts encourage informal interaction. While creating new risks for IT integrity, telework also provides an opportunity to revisit the management of professional skills, tapping a formerly inaccessible pool of talents.

Covid19 prompted retailers and customers to *reduce cash usage* in order to avoid any unnecessary contact, causing an acceleration in digital payments, including contactless solutions like Apple Pay and Google Pay. Such a shift did not reverse when lockdowns ended, but instead rose further, with payment services providers expecting that cash usage will return up to only 30% of pre-Covid19 usage when the pandemic ends.

Due to Covid19, the real economy expected a lasting contraction, with the fall in production and disposable income being considerably worse than average for some industries and household types. To prevent permanent damage to production and social cohesion, governments engaged in support measures, including public guarantee schemes on bank loans ("PGS", amounting to €381 billion in the first quarter of 2021), most of which concentrated in a few Member States. Public support may have encouraged banks to accommodate an "unhealthy" demand for credit lines, supporting weaker companies; as it is gradually rolled back, a new wave of bad loans is expected to emerge, especially for SMEs and consumer credit. Under such a scenario, PGSs may contribute to a resurgence in the sovereign-bank loop.

Meanwhile, as the pandemic disrupts supply chains (causing shortages and production delays) and energy prices soar (also in response to non Covid-related factors), inflation forecasts are spiking, leaving the 2% "safe zone". As a consequence, long-term rates have already picked up, although they are still below pre-pandemic levels. Higher interest rates may prove beneficial for banks by revitalising margins earned on retail deposits; in the short term, however, higher yields may translate into losses on the lenders' fixed-income portfolio, while increasing borrowing costs for non-financial companies (leading to greater default risk).

Indirect consequences - The rise in e-commerce and contactless payments has strengthened *non-bank payment service providers*, threatening to undercut bank profits. Innovation includes payment processors specialising in Internet-based transactions, non-financial enterprises which have started operating their own “electronic wallets” for customers, as well as new distributed technologies that allow payments to take place outside the banking system. To match the ease of use and service breadth offered by the new entrants and retain a central role in the payment system, banks must face significant IT investments, possibly leading to further consolidation.

The Covid19 crisis has also sparked a significant increase in the use of *digital platforms* by banks to sell products and expand their customer base. This includes sites comparing products offered by multiple institutions, platforms run by banks to provide access to third party services, platforms marketing non-financial goods and offering bank services as a side product, ecosystems delivering a single point of entry to multiple third-party services and “enablers” (enabling access to payments and other services and leveraging data for service extension). Digital platforms may originate new forms of financial and operational dependencies between banks and non-financial players. Furthermore, the latter are traditionally less regulated and may trigger some kind of “step in risk” for banks who would suffer a reputational damage if the services provided through digital platforms were to be disrupted. This dependency may be exacerbated by network economies rewarding large platforms, and by anti-competitive behaviours leading to a highly concentrated market. The ability to reach new customers may also pose issues in terms of mis-selling, conduct risk and customer protection.

As telework, remote transactions and vertical integration with external platforms gain momentum, banks find themselves increasingly vulnerable to *cybercrime* (attacks against the financial sector’s IT structures allegedly surged by 238% in the early weeks of the Covid19 pandemic). This leads to many additional costs, including damages caused by successful intrusions, insurance premiums against ICT-related losses, compliance costs due to new regulations, software investments and the quest for new professional talents specialising in cybersecurity. As some of these expenses are fixed in nature, they might reinforce the trend towards further mergers and acquisitions.

Increased use of telework and online shopping is putting pressure on commercial real estate prices which in 2020 have recorded the first year-on-year drop in several years. While demand increased for logistics and the fall in occupancy rates for prime office buildings proved overall manageable, retail spaces took a major hit and a fall in prices may be required to make assets attractive again. Accordingly, the degree of credit protection entailed by this kind of collateral may prove weaker than expected.

Implications for bank supervision – Against this background, supervisory priorities may have to be recalibrated in order to face unprecedented changes, with a view to: i) challenging business models that have become irreversibly unprofitable, and promoting mergers and acquisitions as a way to ensure a smooth market exit for institutions weakened by the new economic and technological context; ii) promoting competition while ensuring that new entrants do not enjoy any undue comparative advantages, and that risks are uniformly disciplined across Member States, regardless of the institution type by which they are generated; iii) protecting consumers and other financial services users as artificial intelligence and big data originate new risks for privacy and financial inclusion.

1. FOREWORD

As Europe crosses the 18-month milestone in the Covid19 crisis, several long-term consequences for its banking industry are becoming increasingly apparent. Some of them cannot be accurately measured, yet, due to physiological delays in official statistics; nevertheless, there is a large qualitative consensus on what the main challenges could be, and how they could affect bank stability.

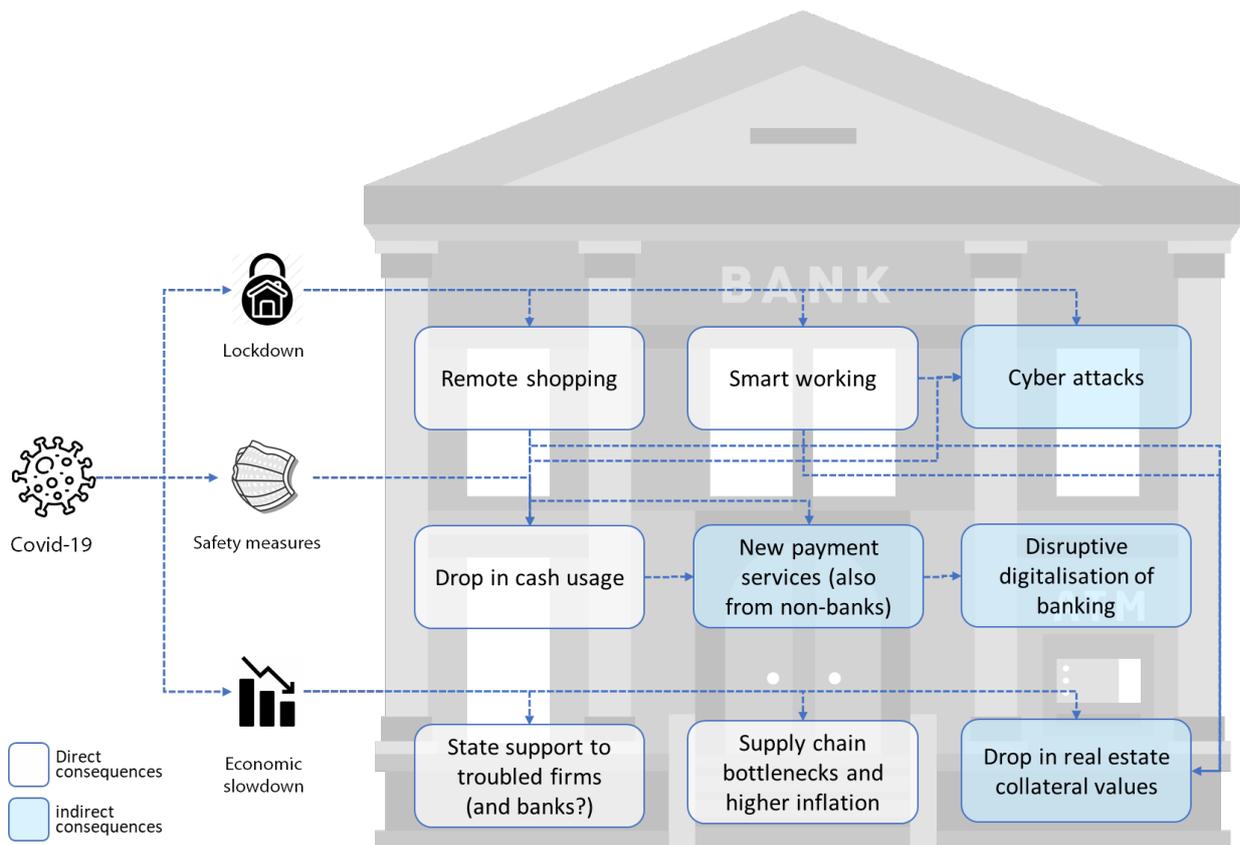
Such challenges can be expected to rank high on the supervisors' agenda, in terms of both monitoring and remedial actions. Still, as many of them are significantly different in nature from past sources of financial distress, they may prove hard to assess and counter in a timely and consistent way.

This note provides a brief discussion of the main structural changes that are likely to be triggered by Covid19 in the banking sector. As most of them are hard to measure (and even to identify precisely), our survey is likely to prove incomplete and somewhat blurred. It might however offer some food for thought and highlight the need for further, better-informed analyses.

Figure 1 shows the main topics covered in this paper. We first identify three groups of *direct consequences* of Covid19 for banks, namely:

- the long-term impact of the lockdown on customer behaviour and productive processes (including remote shopping and telework);
- some further effects that anti-Covid19 measures are likely to exert on the public's habits (namely, a drop in cash usage and a further shift towards innovative payment methods);
- the fallout of the economic downturn suffered by a large portion of bank borrowers (including the risk of a surge in non-performing loans, the increased use of State guarantees and the possible bottlenecks along industrial supply chains, triggering higher inflation).

Figure 1 - Direct and indirect effects of Covid19 on banks



Source: Author's own elaboration

We then discuss how the above-mentioned factors may, in turn, lead to some *indirect consequences* (partly due to an acceleration in pre-existing trends), including:

- the further development of new digital payment services by non-bank competitors, and the need for banks to embrace a fast and sustained digitalisation that may prove disruptive;
- a rise in cyber-attacks as the banks' IT infrastructures become less monolithic and increasingly distributed;
- a drop in the value of some real estate collateral securing long-term loans.

Following this outline, §2 deals with direct consequences, whereas indirect ones are covered in §3; §4 hosts a few sample questions that MEPs may want to use in their periodic dialogue with the Single Supervisory Mechanism's Chairperson; finally, §5 summarises our main findings and concludes.

Before we proceed with our discussion, an important caveat is in order: while we believe that the above-mentioned trends are going to materialise across the banking sector, a high degree of heterogeneity among individual behaviours is to be expected. As shown by (Aldasoro et al., 2020), the gap between "safe" and "risky" institutions in the investors' eyes has increasingly widened since the onset of the pandemic. Market participants anticipate that only resilient lenders are equipped to deal

with the challenges involved by a post-Covid19 world, which may prove too hard for some already strained, high-risk lenders¹.

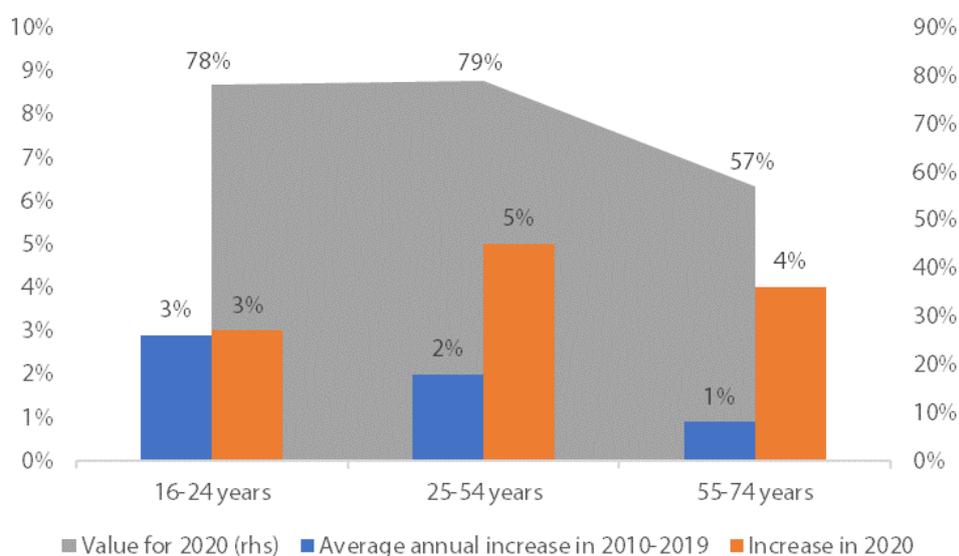
2. DIRECT CONSEQUENCES OF COVID19

2.1. The increase in remote shopping and its implications

The trend towards web-based purchases had been in place for a long time before Covid19.

Nevertheless, 2020 marked a significant increase in the use of Internet shopping, especially for those age brackets who were less familiar with it (see Figure 2). Almost four out of five Internet users aged between 16 and 54 have carried out at least one electronic purchase of goods or services in 2020. The share of users in the 25-54 age bracket experienced a 5% surge, more than twice the average annual increase in 2010-2019. Purchases by users aged 55 to 74 picked up markedly (+4%, vs. an average 1% per year in 2010-2019) and filled part of the gap *vis à vis* younger internet users.

Figure 2 – Share of Internet users who bought goods or services for private use, EU



Source: Eurostat² surveys and estimates.

As noted by (Bounie et al., 2020), online shopping helped contain the overall impact of Covid19 on consumption expenditure, thereby increasing economic resiliency. In France, the overall decline in online expenditure, around 30%, was well below that experienced by off-line purchases (-60%). This helped mitigate the overall drop in consumer demand.

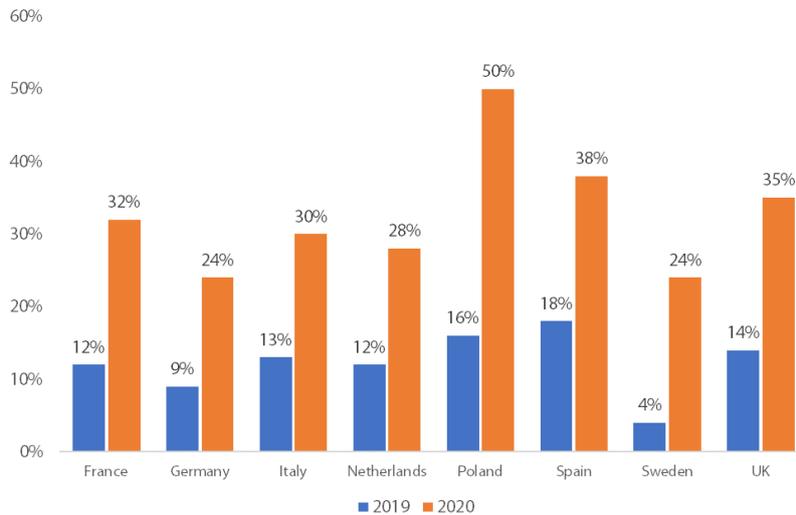
While the acceleration in the volume of Internet-based sales was remarkable (see Figure 3), Covid19 also extended the variety of goods and services being exchanged, including personal services that were hitherto considered unsuitable for e-commerce. Examples are remote medical consultations, psychological sessions and coaching, diet and workout mentoring, online speech therapist services,

¹ For similar reasons, Covid19-related measures by bank supervisors, allowing lenders to run down some of their capital buffers, have mostly been met with negative price reactions, suggesting that markets anticipate the downside risk associated with the possible depletion of capital buffers as credit risk in the loan portfolio is expected to rise (Demirguc-Kunt et al., 2021). For a confirmation of the link between capitalisation and ability to lend under troubled macroeconomic conditions, see (Basel Committee, 2021).

² See https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics_for_individuals#E-shopping:_biggest_increase_among_young_internet_users.

private teaching and investment consulting. Banks also experienced a considerable increase in digital sales, according to anecdotal evidence³.

Figure 3 - Annual growth in e-commerce sales



Source: (Oliver & Wyman, 2021) – 2020 data refers to January-November sales compared to the same period in 2019

As the focus of Internet-provided services shifted away from traditional IT- and office-related activities (such as code editing, website development and translations), new, unsophisticated buyers asked for a seamless user experience where product selection, customer identification, payments and online service delivery were as smooth and natural as they could be. 18 months into the Covid19 pandemic, banks can no longer expect customers to download forms, print, sign, scan and send them to a “no-reply” e-mail address.

As further discussed in §3.2, the ability to seamlessly integrate banking services into an e-commerce experience can also provide banks with additional outlets to sell their products (e.g., instalment loans for online purchases) and enhance their customer base. Through open architecture protocols and APIs⁴, such services can become scalable and economically sustainable even when they are offered through small e-commerce sites with a limited sales volume.

Greater familiarity with online services also makes brick-and-mortar branches increasingly obsolete⁵. As a result, the job cuts announced by several large lenders before the pandemic are likely to continue (even though some have been put on hold due to the health emergency). This includes plans to scrap 35,000 jobs at HSBC by 2022 (as part of an effort to achieve \$4.5 billion in cost savings),

³ (Accenture, 2020) reports that digital sales represented 44% of Bank of America's total customer sales in the third quarter of 2020, up from 29%; also, 75% of Commerzbank's new customers opened their account online in the second quarter of 2020, while 63% of BBVA's sales occurred through digital channels in the first half of 2020 (up from 57% one year before).

⁴ An API (“application programming interface”) is a connection between computer programs, usually based on a public-domain standard. APIs tend to be stable over time, even when other software components evolve, providing an easy way for programmers and web developers to write code that interacts with third-party software. API communication usually takes place over the Internet: this explains why, although the term dates back to the 1940s, widespread API usage can be considered a relatively recent phenomenon.

⁵ In the US, 18% of respondents to Bain & Co.'s Covid19 Pulse Survey (deployed in June-July 2020) said they expected to reduce the use of bank branches for routine interactions even after the pandemic is over. Interestingly, another 16% stated that they would reduce the use of branches also for product purchases or service interactions. For further details see <https://www.bain.com/insights/more-digital-more-flex-retail-banking-behavior-amid-covid-19/>.

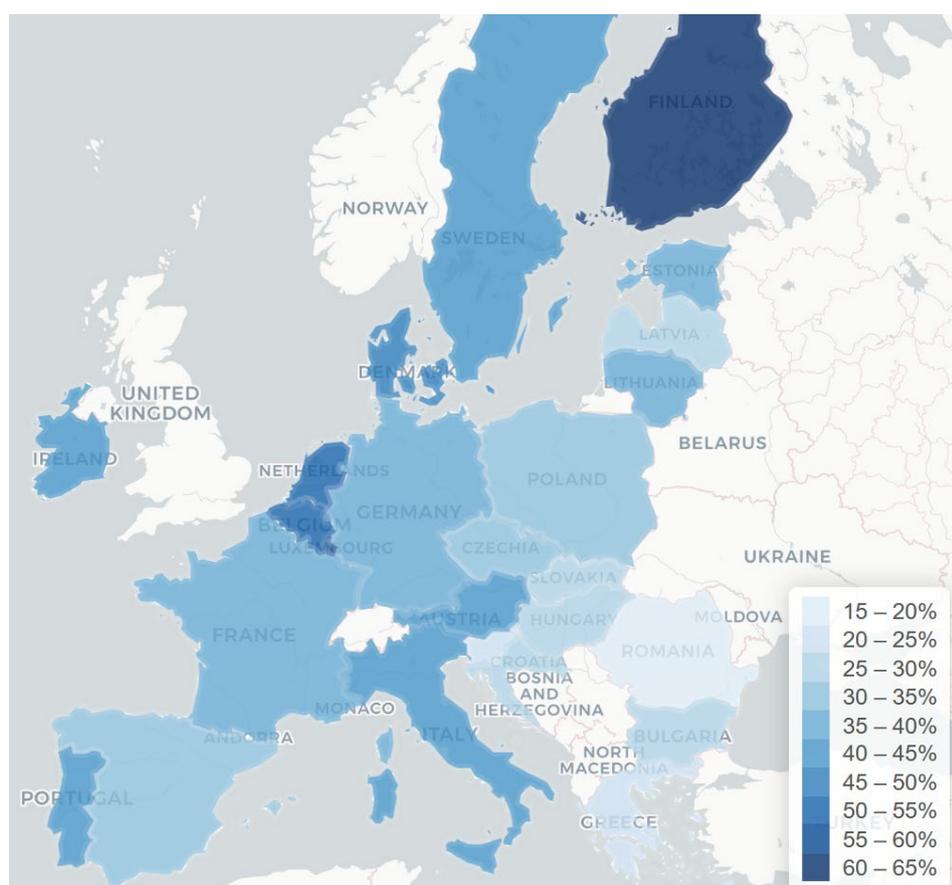
18,000 jobs at Deutsche Bank by the same deadline and 13,200 jobs at Unicredit within 2023 (Tyce and Tang, 2020).

2.2. Telework, and why it is here to stay

Telework was already largely used in some European industries before the pandemic. According to the European Commission’s Joint Research Centre (Milasi et al., 2020), customary usage exceeded 10% in several sectors, including IT and other communication services, education and publishing activities (with occasional usage accounting for another 20%-30%).

The lockdowns mandated by EU Member States in the wake of the first Covid19 wave have led to a rapid increase in telework (see Figure 4), reaching segments that were previously unfamiliar with it and had to rely on home-built quick fixes⁶. Notwithstanding this lack of preparation, remote working is generally thought to have ensured business continuity in several fields; banking is no exception.

Figure 4 - Share of respondents who started to work from home as a result of Covid19



Source: Eurofound – Data refers to April-May 2020

⁶ The cross-country differences in Figure 4 are somehow similar to those observed ahead of the Covid crisis, with telework being more widespread in Nordic countries and significantly less used in Greece, Spain, Italy and Cyprus (as well as in some Eastern jurisdictions like Bulgaria and Romania). In turn, such differences can be ascribed to industrial structures (e.g., workers in knowledge- and ICT-intensive service sectors are account for a larger share of total employment in Sweden, Finland, and the Netherlands), as well as to differences in the occupational mixes, the distribution of employment by firm size, the rate of self-employment, organisation and management cultures (Eurofound, 2021).

Eighteen months later, banks possess a clear picture of the benefits and weaknesses associated with smart working. First, working from home increases the level of real wages because it allows employees to cut costs (transportation, as well as the value of time spent to reach the office). This “bonus”, however, does not increase company expenses: indeed, heating, cleaning and electricity charges are reduced or shifted to employees (not to mention environmental costs due to carbon emissions and paper consumption).

The impact on productivity is still unclear. While office work certainly shields employees from minor domestic distractions, telework often involves an extension of their time commitment beyond 9-to-5. Greater flexibility reduces the need for one-day paid leaves; the ability to work without leaving one’s home makes it easier to cope with trivial diseases that would have required a short absence⁷. The fact that managers do not exert visual control on employees can prove an issue only for companies that do not work by objectives (and may indeed represent a beneficial push towards better organisational arrangements).

However, remote interaction can be more complicated and less effective, especially for young people who would like to learn the job by working side by side with more experienced colleagues. This is one of the reasons why telework has not always been well-received by employees. Negative symptoms range from back pain due to non-ergonomic furniture to anxiety triggered by prolonged loneliness and the “always on” syndrome. Large European banks are working to minimise these side effects through hybrid models (where 40% to 60% of working days take place in the office) and new office layouts hosting common rooms dedicated to informal interaction. Telework also provides an opportunity to revisit how professional skills are managed, drawing on a formerly inaccessible pool of talents: externally (as flexibility makes it easier to recruit qualified profiles), but also internally, as it allows to put back into play those employees who had renounced their career ambitions because of family constraints.

Together with the rise in e-commerce and mobile banking, home-working increases risks for cybersecurity, as personal devices are more prone to being hijacked and serve as a gateway for large-scale attacks. As further discussed in §3.3, this calls for further investments in IT security and new professional figures.

2.3. Less appetite for coins and banknotes

As noted by (ERPB Secretariat, 2020), since the outbreak of the pandemic electronic payments (including contactless payments at the point of sale) have surged in popularity, with national central banks’ surveys showing a significant shift in payment behaviour from cash to cashless (e.g., 43% of German consumers reported a change in their payment habits in shops).

Covid19 induced retailers and customers to avoid any unnecessary contact, including when it came to paying. Although cash is probably not a major channel of contagion⁸, increased caution in the use of banknotes caused an acceleration in the adoption of digital payments. Using daily data on transactions in Italy during the first lockdown, (Ardizzi et al., 2020) have documented a 9.7% decrease in the cash-to-card ratio after March 8 2020; the decrease (compared to pre-Covid19 levels) did not reverse after May 3, 2020, when the lockdown ended, but instead rose to 11.6%, suggesting a permanent shift away from cash, as consumers kept using alternative payment methods. The share of contactless payments, which was up by 20.1% during the lockdown, increased by another 4.4% after

⁷ Quoting data from the Australian Bureau of Statistics, (Ker et al., 2021) notes that around one-in-four of teleworking employees reported having felt unwell and choosing to work from home instead of taking an absence from work.

⁸ See e.g. (Auer et al., 2020).

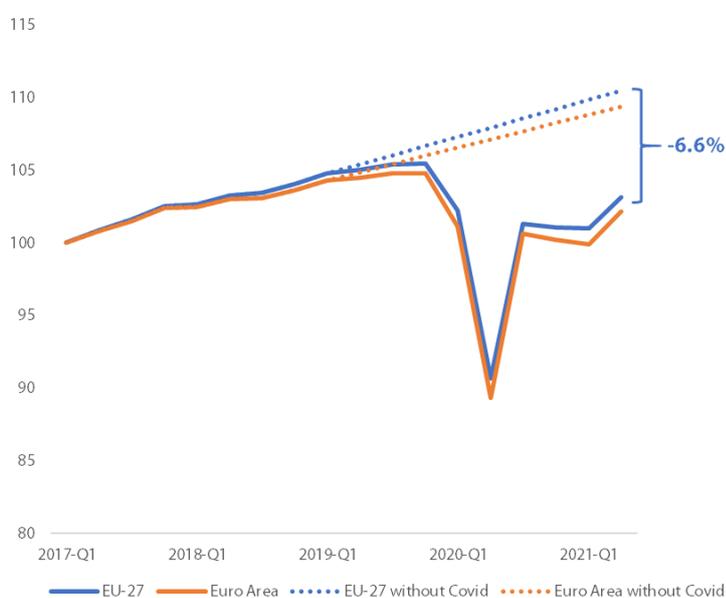
May 3 2020, thanks to higher limits for PIN-less credit card transactions (a new €50 threshold was introduced in many EU countries) and to widespread usage of digital solutions like Apple Pay and Google Pay, which allow contactless payments even for larger amounts (Weimert and Saiag, 2020).

A recent survey of 50 European payment services providers (Deloitte, 2021) has found that almost 60% of respondents expect that cash usage will return up to only 30% of pre-Covid19 usage when the pandemic ends. In the US, 24% of respondents to Bain & Co.'s Covid19 Pulse Survey (deployed in June-July 2020) said they expected to reduce the use of cash even after the pandemic is over. Additionally, another 11% stated that they would reduce the use of physical debit/credit cards, in favour of pure mobile, contactless systems⁹.

2.4. The economic slowdown and its toll on bank loans

Although the real economy is expected to pick up quickly in the third quarter of 2021, it still has a long way to go before the drop in GDP caused by the pandemic is offset (see Figure 5). The contraction has been uneven across companies and households, with the fall in production and income being considerably worse than average for some industries and layers of population.

Figure 5 - Real GDP (index: 2017Q1 = 100)



Source: Eurostat. The “without Covid” values are a simplified projection obtained by applying the average quarterly compounded rate in 2017-2019 to all quarters after 2020-Q1. All values are seasonally- and calendar-adjusted

To prevent the pandemic from causing permanent damage to production and social cohesion, all Member States engaged in an array of support measures, including public guarantee schemes (“PGS”) on bank loans, moratoriums and one-off tax relief (Resti, 2021). According to (Joint Committee of European Supervisory Authorities, 2021), exposures assisted by a PGS have reached €381 billion in the first quarter of 2021, most of which concentrated in a few countries; this has hitherto shielded the banking system from a rise in non-performing loans. However, public support may have encouraged

⁹ See <https://www.bain.com/insights/more-digital-more-flex-retail-banking-behavior-amid-covid-19/>.

banks to accommodate an “unhealthy” demand for credit lines, aimed at supporting weaker companies (especially SMEs looking for liquidity to bridge a working capital gap), rather than investments directed at increasing productivity. Furthermore, as market rates were kept forcibly low by central banks in order to support economic activity, risk premiums remained thin and leveraged lending continued to thrive notwithstanding the pandemic (European Central Bank, 2021).

As public support is gradually rolled back, a new wave of bad loans is expected to surface in the bank balance sheets. According to simulations carried out by the OECD (2021), the peak in NPLs associated with Covid19 would stand below previous crises levels in most jurisdictions. Still, several banks would suffer a capital shortage under the most severe scenario and convert their contingent capital instruments (“CoCos”) to obtain new equity.

According to the EBA’s Riskassessment survey (see Figure 6), more than 50% of the banks are especially concerned by an increase in non-performing exposures in the SME, consumer credit and commercial real estate portfolios. Conversely, large corporates, residential mortgages, institutions and sovereign borrowers are perceived as less risky.

Figure 6 - Share of respondents expecting portfolio to deteriorate



Source: EBA Risk assessment survey in (Joint Committee of European Supervisory Authorities, 2021)– Share of respondents expecting the portfolio to deteriorate, net of respondents expecting the portfolio to improve

Nevertheless, the widespread use of PGSs (especially for some EU countries) may indirectly increase sovereign risk and contribute to a resurgence in the sovereign-bank loop that caused significant harm to bank stability during the Eurozone crisis in the early 2010s. According to (Joint Committee of European Supervisory Authorities, 2021), total direct exposure of EU banks towards general governments exceeded €3.2 trillion at the end of 2020 (51% of which was towards their home country).

In the past, the ECB has asked banks to commit to a multi-year NPL reduction strategy that would involve large sales of non-performing loans to private investors; Member States and the European Commission (2020) have sometimes championed the creation of asset management companies

(AMCs), also known as "bad banks", to help absorb the increase in NPL supply triggered by the banks' large disposals.

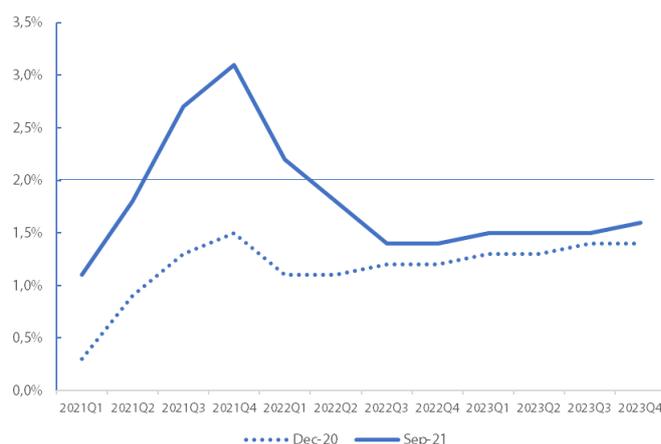
As noted by (Gual, 2021), however, this framework was set up in response to the previous financial crisis, but the rise in NPLs due to Covid19 may have its own features, making it different from the past. As shown above, the assets that are expected to be most damaged are now concentrated among SMEs, extremely heterogeneous and mostly without much valuable collateral. These assets may not fit very well with AMCs and specialised funds, as banks themselves may prove better prepared to manage them than outsiders.

2.5. Supply chain bottlenecks: is inflation back?

Another remarkable difference between previous crises and the one triggered by the Covid19 pandemic, is that the latter is not caused by a slump in aggregated demand, but also entails a drop in supply, (including for some goods that rely on specific components whose supply chain appears to have been disrupted by the pandemic, causing shortages and production delays).

Together with a significant increase in energy prices (which also responds to non Covid-related factors, such as stronger demand in China, higher emission rights prices in Europe and natural disasters disrupting oil supply in the US), this has caused inflation forecasts to spike, crossing the 2% threshold that is usually associated with "healthy" price increases and economic growth. The ECB had to substantially revise its expectations on the harmonised consumer price index (see Figure 7), but still believes inflationary pressure is transitory; the Federal Reserve updated its median forecast for PCE¹⁰ inflation from 3.4% to 4.2% for 2021, with values above 2% for 2022-2024¹¹.

Figure 7 – ECB forecasts for the HICP overall index



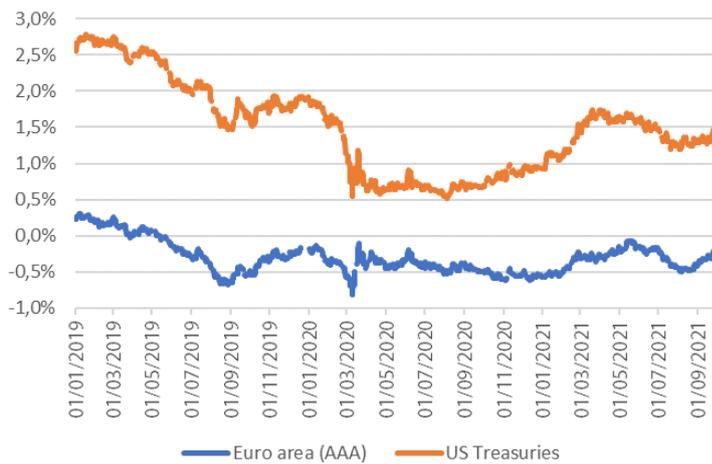
Source forecasts released by the ECB in December 2020 and September 2021, as reported in the ECB's Statistical Data Warehouse

As a consequence, Covid19 may not be associated with a "lower-for-longer" scenario of low/negative interest rates (Carletti et al., 2020), but instead lead to a rise in yields. As shown in Figure 8, long-term rates have already picked up in 2021, although they are still below pre-Covid levels.

¹⁰ Personal Consumption Expenditure.

¹¹ See the "Summary of Economic Projections" released on September 22, 2021, by the Federal Open Market Committee, available at <https://fraser.stlouisfed.org/files/docs/historical/FOMC/meetingdocuments/fomcproitabl20210922.pdf>.

Figure 8 - 10-year rates in euros and US dollars



Source: ECB Statistical Data Warehouse, Federal Reserve of St. Louis.

In the medium term, higher interest rates may prove beneficial for banks by revitalising margins earned on retail deposits; in the short term, however, higher yields may translate into losses on the lenders' fixed-income portfolio. Furthermore, as noted by (Joint Committee of European Supervisory Authorities, 2021), higher rates may raise challenges for corporate lending, as ultra-low yields have led banks to invest in riskier assets as a result of a search-for-yield behaviour, and allowed borrowers to increase leverage. Rising interest rates would also imply higher borrowing costs for non-financial companies, leading to greater default risk, especially for highly-indebted companies.

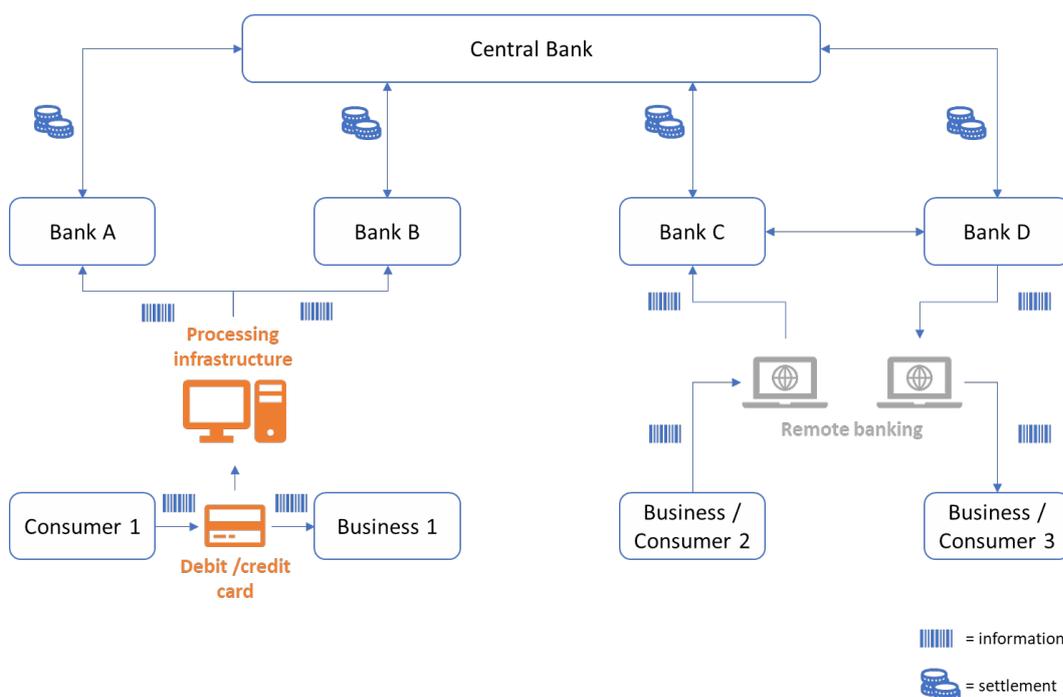
3. INDIRECT CONSEQUENCES OF COVID19

3.1. New payment services

The rise in e-commerce and contactless payments associated with the pandemic has further increased the number of initiatives in the payment services’ arena, strengthening new players that threaten the incumbents, and may undercut bank profits in the next few years.

Traditional business models in the payment services sector typically rely on banks working as a gateway for consumers and businesses wishing to exchange money (see Figure 9). Although the front-end infrastructure may vary (e.g., debit cards, credit cards, internet banking and other remote banking services for businesses), banks are the ones exchanging information on amounts to be debited/credited and settling outstanding balances via the central bank.

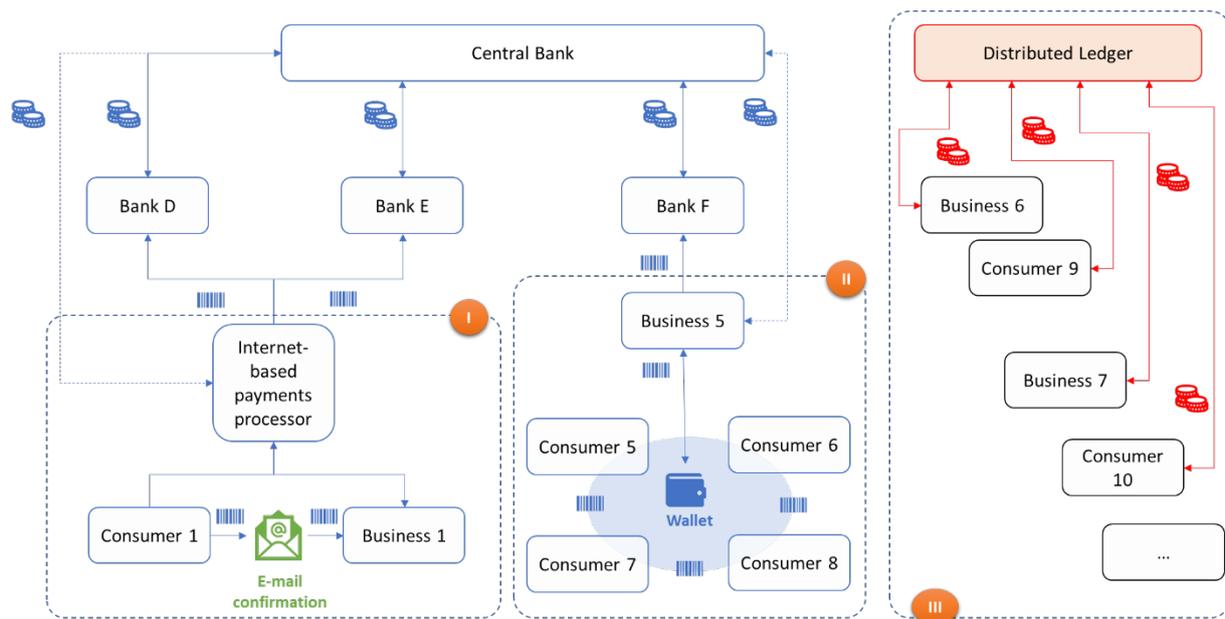
Figure 9 – Traditional business models in the payment services sector



Source: Author’s own elaboration

In the last 15 years, banks have seen their market power eroded by new initiatives and technologies whose potential has been further enhanced by the pandemic. Figure 10 provides some examples of such innovations (additional examples of payment-related platforms are discussed in §3.2).

Figure 10 – Examples of new business models in the payments arena



Source: Author's own elaboration

First (see Case I in the figure), new payment processors specialising in e-commerce transactions have emerged, providing consumers with a simple and safe way of transferring money (sometimes including free insurance coverage on their Internet-based purchases), and giving retailers an opportunity to sell goods and services worldwide through one single tool for which they are willing to pay a fee.

Second (Case II), non-financial enterprises like e-commerce sites and phone companies have started operating their own "electronic wallets", providing customers with an easy and cheap way to exchange money among themselves, sometimes with a focus on small transactions for which traditional transfers would prove too cumbersome and uneconomical.

In both Case I and Case II, new payment providers may turn to a bank to process interbank payments or choose to become themselves a chartered institution to gain access to central bank settlement.

Meanwhile (Case III), new distributed technologies have enabled payments to be carried out without relying on the banking system or even the Central bank; this includes crypto-assets (which, however, do not provide a reliable means of payment, due to the considerable volatility in their market value) and global stablecoins, which can be pegged to real-life currencies (the so-called "fiat money") and backed by an adequate amount of low-risk assets (Resti et al., 2021).

The advent of non-bank providers in the payment services sector represent a threat for the profitability of traditional lenders. As more and more consumers have become familiar with alternative channels during the pandemic, institutions must improve the accessibility of their systems to provide the same ease of use, standardisation and service breadth offered by the new entrants¹². This calls for significant IT investments and may lead to further consolidation.

In response to the increasing role of new entrants in traditional payment services, banks have also

¹² As one of the advantages of the new payment processors is the ability to allow for smooth cross-border payments, banks are also working on initiatives (like the so-called European Payments Initiative) aimed at unifying national payment circuits across Europe, reducing dependency on a few non-EU credit card schemes.

been using Internet-based platforms (including sites run by non-financial players) as an outlet to approach new customers and sell customised products with low distribution costs: such “digital platforms” are discussed in §3.2.

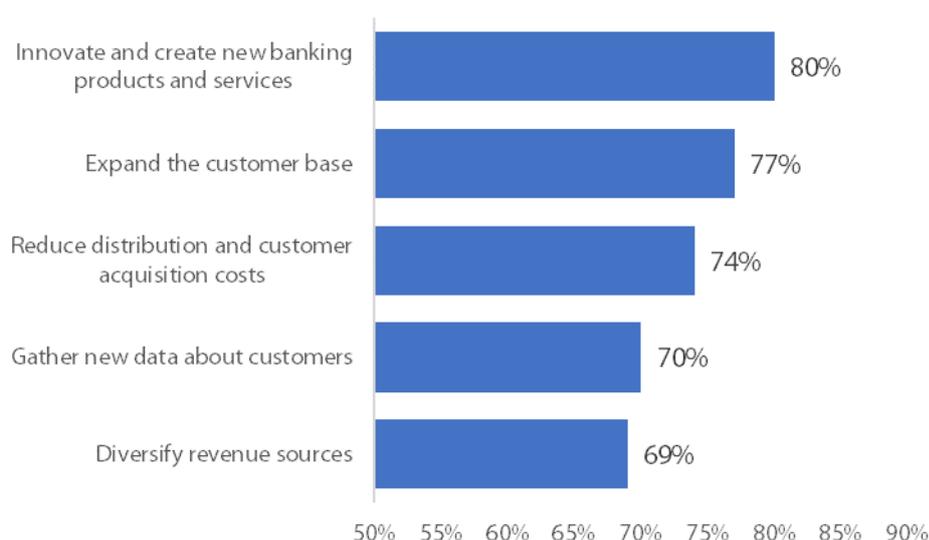
3.2. Further digitalisation of banking, and why it is a mixed blessing

As noted by (Campa, 2020), the Covid19 crisis has sparked a significant increase in the experimentation and roll-out of new technologies across the EU financial sector. On the customers’ side, (Baicu et al., 2020) have found that lifestyle changes due to the pandemic have implied more willingness to trust the safety of internet/mobile banking services, a positive perception about the ease of use of new technologies, and an increase in the perceived utility of these services¹³.

As part of this trend, the EBA has recently surveyed how banks use digital platforms, including comparators (sites comparing products offered by multiple institutions), platforms run by institutions to provide access to third party services, platforms marketing non-financial goods and offering bank services as a side product, ecosystems (i.e., platforms acting as a single point of entry to multiple third-party providers, both financial and non-financial) and enablers (platforms enabling access to pre-existing payment tools and leveraging data for service extension).

An example of non-financial platforms marketing banking services are travel-booking sites selling insurance or foreign exchange, real estate sales offering credit and/or insurance products, as well as e-commerce operators providing instalment loans. Such arrangements, sometimes referred to as “banking as a service” (“BaaS”), involve a brokerage fee to be paid to the site owner, who retains control of the distribution network (and may decide to switch to a different provider in a way that is almost unnoticeable to the final customer). However, according to a recent survey of retail bank executives, they also bring about several advantages, providing banks with a cheap, unprecedented way of extending their customer base and innovate their product portfolio (see Figure 11).

Figure 11 – Potential benefits of the BaaS model



Source: (Capgemini Research Institute and EFMA, 2021), based on a survey of 122 bank executives. Share of respondents who assigned 5 or above (on a scale of 1 to 7).

¹³ While the study refers to a specific national banking system (Romania), it should be noted that several large European lenders (including e.g. Société Générale, ING Bank and UniCredit) hold a significant market share in the Romanian market.

Ecosystems are different, in that banking services are not provided as an ancillary product, but form part of the website's offering, side by side with other financial and non-financial proposals. In turn, they differ from enablers (mostly, large technology companies), who typically operate in contexts where a contractual relationship with the customer already exists¹⁴ (e.g., a deposit account) and facilitate a new method of payment (e.g. a digital wallet hosted on the customer's smartphone, allowing payments through a NFC terminal or a QR code).

As noted by (European Banking Authority, 2021), the increased use of digital platforms presents a range of potential opportunities for both EU customers and financial institutions, as it can facilitate access to financial products and services, while providing lenders with new ways of reaching additional demand without the costs of a traditional sales network. However, as more and more lenders rely on digital platforms for the marketing of their services, this can give rise to new forms of financial, operational, and reputational dependencies between banks and non-financial players.

Non-financial entities acting as middlemen between lenders and customers are traditionally less regulated than financial institutions; additionally, the dialogue between bank supervisors and authorities regulating digital platforms run by non-financial entities may prove untested and lack speed of response (given the sector's steep innovation rate and the frequent provision of cross-border services). This may cause instability and trigger some kind of "step in risk" for banks who feel they would suffer a reputational damage if the services provided through digital platforms were to be disrupted. The institutions' dependency on third-party platforms may also be exacerbated by network economies rewarding large platforms, and by anti-competitive behaviours leading to a highly concentrated market¹⁵.

The ability of digital platforms to reach new customers that are not familiar with banking services may also pose issues in terms of mis-selling, conduct risk and customer protection (including, e.g., complaint handling, as the provision of banking services relies on multiple players and individual responsibilities may become blurred). Additionally, the platforms' ability to leverage on personal data to profile individual behaviours and preferences may cause concerns in terms of privacy protection. The European Banking Authority has recently acknowledged these risks, and highlighted an array of possible options to address them (European Banking Authority, 2021).

3.3. Cyber attacks

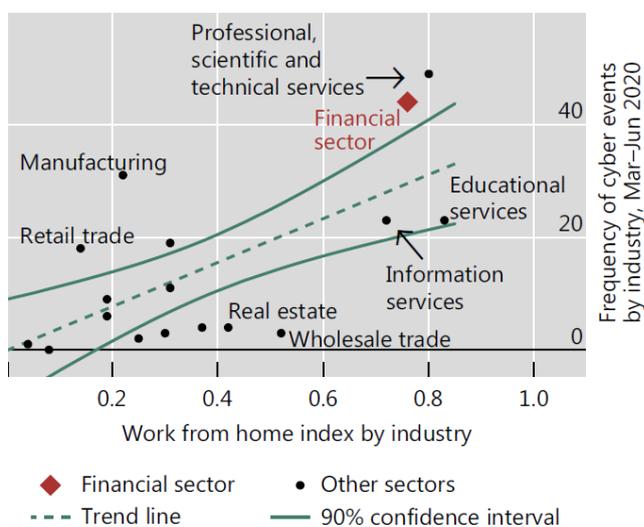
As vertical integration with external platforms gains momentum, banks find themselves increasingly vulnerable to cybercrime. The accelerated digitalisation of front- and back-office processes has led to increased reliance on third-party software that can be bought off the shelf to cut costs and meet implementation deadlines. Software-as-a-service, where multiple banks pay a fee to use programs that are maintained and updated by an outside provider, has compounded vulnerabilities to cyber-attacks, as third-party software can be used as a Trojan horse to circumvent a lender's defences. As noted by (Aldasoro et al., 2021), software supply chain attacks are one of the hardest types of threat to mitigate, as they take advantage of established trust relationships and machine-to-machine communications used to provide essential software updates.

¹⁴ Enablers can also partner with financial institutions (or start their own bank) to provide the credit cards or checking accounts needed to use their payment platforms.

¹⁵ As noted by (Carletti et al., 2020), the market power of BigTech platforms benefits from a feedback where: (i) their activity generates vast quantities of customer data; (ii) they process the data with artificial intelligence and machine learning techniques; (iii) they exploit network externalities; and finally (iv) they generate more activity and more data (due to dynamic learning curve-type economies of scale, since more data leads to better algorithms and prediction capacity). This feedback loop consolidates an ecosystem with high built-in switching costs for customers wanting to change platforms. Financial services may complement and reinforce the platform business model.

Such weaknesses were amplified by the sudden rise in smart working that took place in the early weeks of the pandemic (unplanned and based on relatively untested technical solutions), as telework and cyber-attacks tend to show a positive correlation across industries (see Figure 12). According to VMware, a specialised software company, attacks against the financial sector’s IT structures surged by 238% in the early weeks of the Covid19 pandemic (Kellermann and Murphy, 2020).

Figure 12 Work from home and cyber-attacks during Covid19



Source: (Aldasoro et al., 2021) – The “work from home index” (Dingel and Neiman, 2020) is the share of jobs that can be done from home

While ICT continues to be a major driver for cost reduction and increased efficiency in the banking sector, cybercrime leads to several additional costs, including:

- losses due to successful attacks (as affected customers usually get fully refunded by banks to avoid legal challenges and reputational damages);
- higher insurance costs against cybercrime-related losses;
- expenditures needed to secure and retain new professional talents specialising in cybersecurity, and to invest on sophisticated software tools simulating malicious attacks in order to test the resiliency of the bank’s infrastructures;
- compliance costs as new regulations are rolled out to ensure that cyber-risks are adequately monitored, and security breaches are timely and comprehensively reported to supervisors¹⁶.

As some of these expenses are fixed in nature (meaning that they do not depend on the amount of assets exposed to cyber-attacks), this might reinforce the tendency towards further mergers and acquisitions in the banking sector, especially for small lenders who lack the size required to face these additional costs.

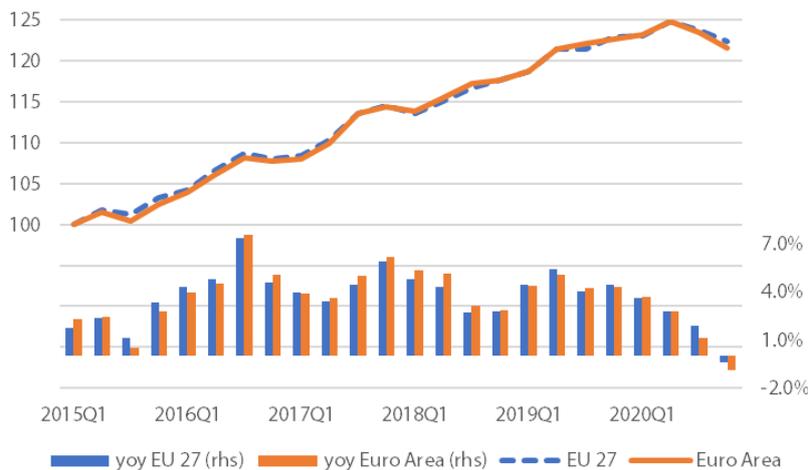
¹⁶ The European Supervisory Agencies (ESAs) have provided technical advice to the Commission, advocating the introduction on new rules to ensure that cyber-risks are adequately addressed by the financial sector (Joint Committee of European Supervisory Authorities, 2021). This has led to proposals for a new “Digital Operational Resilience Act” (“DORA”), consolidating and upgrading requirements that are currently spread across different pieces of legislation (including e.g. PSD2 and MiFID) and providing a framework for timely collection of data regarding IT-related incidents (European Banking Authority, 2021).

3.4. Real estate collateral values

As noted by (af Jochnick, 2020), increased use of telework and online shopping (including mobile banking, making traditional branches less sustainable) is putting pressure on commercial real estate prices.

In 2020, according to ECB statistics, commercial real estate prices have fallen, on a year-on-year basis, for the first time in several years. While the contraction is not dramatic in itself, it summarises different trends for individual property types, some of which are thought to have been considerably more affected. Indeed, while demand increased for logistics (which made up for 17% of total investment in Europe) and the fall in occupancy rates for prime office buildings proved overall manageable, retail spaces (both high-street and shopping malls) seem to have suffered more, and a fall in prices may be required to make assets attractive again (BNP Paribas Real Estate, 2021).

Figure 13 – Commercial property prices (index number, 2015Q1=100; year-on-year change)



Source: ECB Statistical Data Warehouse

According to a recent survey of European real estate investors (PWC and Urban Land Institute, 2021), Covid19 will bring lasting change to the way buildings are used and managed. Asset obsolescence is thought to be the main emerging trend, with 47% of the interviewees expecting it to get worse in 2021, and online shopping “accelerating to the extent that a decade of change may well be condensed to a couple of years”.

The adverse effect on banks of falling property prices may prove twofold: as legacy assets like closed branches and office buildings lose in value, real estate collateral associated with long term loans may provide a lower degree of credit protection than expected.

4. SAMPLE QUESTIONS FOR THE SSM'S CHAIRPERSON

The increased use of telework, e-commerce and third-party platforms has heightened the risks of cyber-attacks on European banks. What initiatives are being deployed by the SSM in this field and how are they being implemented uniformly across banks? Do you believe that legislative interventions are needed to increase the effectiveness of the ECB's supervisory powers in this area?

After Covid19, increased demand for innovative payment methods provided by new entrants, as well as the resurgence of non-performing loans, may significantly undercut the traditional banks' profitability, possibly creating an incentive for greater risk taking. How could such a process be contrasted? Should policy-makers pursue a level playing field across banks and non-bank competitors, and if so how? Should regulators and/or supervisors adopt a stronger stance concerning mergers between middle-sized lenders, to fully exploit economies of scale?

As suggested by a recent EBA's risk assessment survey, SMEs represent the portfolio where non-performing loans are most likely to increase as a result of the Covid19 pandemic. As SME exposures are extremely heterogeneous and mostly without much valuable collateral, would you agree that banks may prove better prepared to manage them, as opposed to outsiders such as asset management companies or specialised investment funds?

The ECB's decision in January 2021 to keep most individual Pillar 2 requirements and guidance unchanged ("pragmatic SREP") was entirely understandable and helped shielding the banking sector from further pressure. However, as individual risk profiles have significantly evolved since January 2020, including due to new threats associated with the pandemic, material adjustments may be needed when the updated requirements are announced in a few months. Do you anticipate a major shift from the past in light of new relevant vulnerabilities? Would you expect to see significant changes in the level of SREP capital charges and in the underlying drivers?

5. FINAL REMARKS

The post-Covid19 world reinforces trends and issues that were already present before the pandemic. The increase in e-commerce and telework, the reduced role of cash and the widespread interest for cheap, convenient payment methods, the need for banks to manage operating costs and invest in innovation: all this pre-dated Covid19 and does not come as a surprise. Still, the post-lockdown economy is likely to witness an acceleration in the demand for simple, intuitive, personalised services delivered through integration in digital platforms, both bank-owned and run by non-bank players. As digitalisation becomes key to the provision of financial services, even to unsophisticated customers, cyberattacks are likely to increase their disruptive potential and become a major issue for financial stability.

This is not to say that the post-Covid19 world does not pose threats of its own: higher NPLs, resurging inflation, the fall in the value of commercial property pledged as collateral are all examples of headwinds that the banking sector has to weather in order to find a path to renewed profitability. Indeed, lower margins provide less space to cushion a rise in loan loss provisions, and revenue shrinkage may further accelerate current plans for downsizing and job shedding, possibly leading to unintended effects in terms of the quality the lenders' processes and controls.

Against this background, supervisory priorities may have to be recalibrated in order to face unprecedented changes, with a view to:

- challenging business models that have become irreversibly unprofitable, and promoting mergers and acquisitions as a way to ensure a smooth market exit for institutions weakened by the new economic and technological context;
- promoting competition while ensuring that new entrants do not enjoy any undue comparative advantages, and that risks are uniformly disciplined across Member States, regardless of the institution type by which they are generated;
- protecting consumers and other financial services users as artificial intelligence and big data originate new risks for privacy and financial inclusion.

While a lot can be done by supervisors alone – by leveraging on day-by-day interaction with lenders and making use of the discretionary tools already in place, like SREP and supervisory expectations – attention must be given also to regulatory gaps that need filling. Innovation and the advent of new players may prove disruptive and exacerbate the banks' inherent weaknesses; but could also provide the Euro Area banking system with the boost that it needs to overcome Covid19 strains and make up for the time lost – in terms of economic growth – in the last 18 months.

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We discuss the main structural changes triggered by Covid19 in banking. Direct consequences include: the impact of the lockdown on remote shopping and telework, lower cash usage and a further shift towards innovative payment methods, the downturn suffered by the economy and bank borrowers. Indirect consequences (partly reinforcing pre-existing trends) include: the further development of payment services provided by non-bank competitors, an acceleration in bank digitalisation, a rise in cyber-attacks, a drop in the value of real estate collateral.

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