

ASSESSMENT OF RISKS TO THE FRENCH FINANCIAL SYSTEM

JUNE 2020

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Overview

Emergency measures in response to an unprecedented economic crisis

Drawing lessons from the 2008 financial crisis, public authorities have acted swiftly, deploying a wide array of fiscal, monetary and prudential measures to counter the effects of the economic shock caused by the Covid-19 pandemic and the associated lockdown measures. The shock, which is larger than any of the recessions in the post-Second World War period, is having a simultaneous impact, in France and around the world, on:

the supply of goods and services, due to supply chain disruptions and a slowdown in business at many companies owing to measures to prevent the spread of the virus, which has led to an unprecedented dash for cash; and

demand, with a pronounced decline in consumption in the very short term together with the medium-term consequences of the shock to household income.

In emerging economies, the collapse in external demand, especially for commodity exporters, has been coupled with substantial capital outflows.

The magnitude of the shock triggered a major stock market sell-off amid considerable uncertainty about the outlook for growth and profits. The sudden shutdown in activity fuelled high demand for cash, leading businesses to renegotiate higher credit lines, which they then drew on, while some financial intermediaries sold off their most liquid financial assets. Debt issuance conditions on primary markets were under strain for several weeks, but liquidity injections by central banks have since enabled financial markets to function satisfactorily on the whole, despite high volatility and wider credit spreads.

Governments implemented emergency measures aimed primarily at safeguarding corporate cash situations and household income while also facilitating access to bank credit by providing guarantees to maintain production capacity and ensure that the economy can restart quickly once the health crisis is over.

In the euro area, the European Central Bank (ECB) adopted a new public and private securities purchase programme designed to maintain favourable financing conditions throughout the area, which are necessary to meet its inflation target, and ensure the smooth transmission of monetary policy in all euro area countries. The new programme helped to relieve the strain on capital markets, especially the corporate debt market. Meanwhile, liquidity injection programmes and measures to ease the terms under which commercial banks obtain refinancing from the Eurosystem have preserved banks' capacity to lend to the real economy – a critical factor in the current crisis.

On the prudential front, authorities decided to allow banks to use capital and liquidity buffers to absorb the shock by enhancing their capacity to lend more to the economy: national authorities released countercyclical buffers, while the ECB, acting as the sole supervisor for the banking sector in the euro area, authorised banks to operate temporarily below the minimum capital requirement (pillar 2 recommendations, capital conservation buffer) and to draw on liquid asset reserves to respond swiftly to the real economy's financing needs. The European banking regulator also adopted transitional measures covering the accounting and prudential treatment of claims restructured via moratoria introduced by banks to temporarily reduce borrowers' financial charges.

Risks to the French financial system

The early part of this crisis has illustrated the resilience of the financial intermediation system in France and Europe, which is the result of reforms introduced on an international basis since 2009 and in Europe in the aftermath of the euro area crisis. As they face up to an economic recession, French banks are in a much more robust financial position, in terms of their capital levels and liquidity position, than they were during the financial crisis of 2008. As a result, they are able to make an effective contribution to the economy's additional financing needs and have extensive capacity to absorb higher risks, especially credit risks.

However, the crisis is exacerbating risks attached to the trend increase in private debt (households and companies) in France as well as specific weaknesses in market financing and asset management.

With their cash positions under severe strain, many companies are being forced to tap additional debt. Measures taken by the French government and other European governments, including state-guaranteed loans, have helped to respond quickly to these financing needs. The scale of this liquidity shock remains uncertain, and how it is dealt with will depend on the pace of the economic recovery. A rise in company debt could undermine the solvency of many businesses. Furthermore, this risk would be increased by a sluggish recovery and credit rating downgrades. A sharp upturn in company failures could in turn lead to more bad debts on bank balance sheets, dampening the credit growth that is needed for the economic recovery.

At this stage, household solvency remains largely intact thanks to public support measures. Yet a significant rise in unemployment could increase the share of loan repayments, notably on property loans, which make up the bulk of debt service payments, resulting in greater credit risk and/or slacker consumption.

At the same time, the size of the automatic budget stabilisers and the implementation of massive public support measures are leading to a surge in government debt throughout the European Union.

Besides the vital emergency measures, preserving the solvency of viable companies is critical to promoting a recovery. More generally, controlling company debt, household debt and the public finances will be key, not just at the macroeconomic level, but also to financial stability.

Liquidity stress on financial markets and rising credit risk have highlighted the tension that exists between certain individually legitimate actions and their collectively sub-optimal consequences: specifically, investment management funds seeking to strengthen their own individual liquidity positions have exacerbated problems at the global level, creating liquidity stress for other stakeholders, including banks and non-financial companies. The need to develop a macroprudential approach for investment funds, which make a substantial contribution to the disintermediated financing provided to the real economy, and the fragility of leveraged finance are two additional priority areas for French authorities.

Further out, the risks associated with failing to take proper account of the major structural shifts currently under way are growing. Massive use of teleworking and remote service provision heralds an acceleration in the digital transformation of the overall economy and especially of the financial sector, which will entail major investments to make business models more profitable. Financial institutions, whether banks or insurers, must also do more to encourage all participants to switch to a low-carbon economy. The European stimulus plan currently under discussion will definitely have a crucial role to play in supporting the energy transition.

In the face of all of these risks, the French authorities responsible for financial stability are ready to act both to limit adverse developments and to mitigate risks in advance.

Matrix of risks to the financial system in June 2020

1. Risks linked to indebtedness

The debt of non-financial companies has increased very swiftly as firms contend with a massive cash shock. Companies are exposed to increased solvency risk in connection with the deterioration in economic conditions.

Through a second-round effect, the deterioration in asset quality could depress the profitability of banks and institutional investors, which could in turn have a detrimental impact on the supply of credit to companies and households.

Amid a sharp slowdown in activity, automatic stabilisers and budget support measures have aggravated the government deficit and helped fuel a rapid run-up in government debt well beyond commitments made under the European stability pact, which has been suspended. Given their debt levels, households will continue to face high repayments. In the event of a substantial increase in unemployment, household solvency could deteriorate.



2. Market risks

Following a market correction and severe stress, especially on liquidity and short-term debt markets, interventions by public authorities, including central banks, and the perception that the health crisis was improving with a gradual exit from lockdown drove a swift, large-scale rebound in prices.

The sharp downturn in earnings expected for FY2020 and uncertainty over the speed of the economic recovery mean that a further equity market sell-off cannot be ruled out, while bond (credit) markets could become strained again following a surge in rating downgrades and/or if credit risk materialises. Episodes of financial stress would likely be reflected by a resurgence in volatility or even another liquidity shock.



3. Risks for financial intermediation of persistent low interest rates

While beneficial to borrowers, the now widespread low interest rate environment will continue to act as a drag on:

- the future profitability of banks, whose lending returns are being hurt by the flatter yield curve; in the immediate future, the terms under which they can obtain refinancing from the Eurosystem (negative rates of as low as -1%), coupled with interest rate tiering, should mitigate the margin impact of low interest rates;
- life insurers' asset-liability management constraints are increasing, while returns on their asset portfolios continue to shrink gradually.



4. Risks linked to structural changes

The crisis is accelerating digitalisation-related transition requirements, prompting traditional firms to make changes to their products and services and operating approaches, against a backdrop of sustained competition. The need to recognise climate issues in order to properly support the transition to a low-carbon economy is growing increasingly urgent. There is a continued risk that the financial sector could be weakened by an insufficient or inadequate response to these structural challenges.



 **Systemic risk**  **High risk**  **Moderate risk**

*The **colour** represents the level of risk based on an expert assessment reflecting the probability that the risk will materialise and its potential systemic impact. The **arrow** indicates how risk is expected to develop over the next six months.*

Measures to limit risks and ensure that the French financial sector continues to operate smoothly while serving the economy

Confronted with the greatest economic crisis since the Second World War, fiscal, monetary and prudential authorities have taken exceptional measures to respond to the challenges facing the economy and the financial sector. The key priorities are to maintain the provision of financing to the economy, support the recovery and promote a greener and more digital economy.

1. Response to the economic crisis caused by the pandemic

Prudential measures:

- Responding to the sudden increase in corporate financing needs after health measures caused business activity to grind to an abrupt halt, the Haut Conseil de stabilité financière (HCSF – High Council for Financial Stability) decided on 1 April 2020 to lower banks' countercyclical capital buffer rate to 0%. This had the effect of postponing the council's 2019 decision to raise the rate from 0.25% to 0.5% on 2 April 2020. The aim is to provide credit institutions with enough room for manoeuvre in terms of their capital to respond to increased credit demand from companies dealing with a major liquidity shock owing to the downturn in activity.
- Previously adopted decisions and recommendations remain in force:
 - **The decision in May 2018 limiting banks' exposure to the most heavily indebted companies** requires systemically important institutions to keep exposure to a single heavily indebted counterparty to below 5% of capital. This decision is designed to mitigate the risk associated with financially stressed non-financial companies, a risk that has been increased by the recessionary environment and the rise in corporate short-term debt as a result of the liquidity shock.
 - **The recommendation of December 2019¹ on the conditions applicable to household property loans**, which reiterates industry best practices (maximum debt-service-to-income ratio of 33%, credit period of no more than 25 years, framework provided for exceptions). The current environment, which has led to an income shock for households and is expected to be accompanied by an increase in unemployment in the short and medium term, adds to the need for compliance with these best practices, as the solvency of some debtor households may be affected.

Monetary measures:

- The Eurosystem (ESCB) responded promptly **by hugely expanding liquidity provision** (LTROs and TLTROs) **and its public and private securities purchase programmes** to get conditions on debt markets back to normal quickly. The Pandemic Emergency Purchase Programme (PEPP) was thus increased in two stages to EUR 1,350 billion, and may be raised further if need be. This plan, combined with massive provision of liquidity by central banks, made it possible to reopen the euro area bond market, which shut down temporarily in March, while also permitting significant risk premium compression for euro area sovereign issuers and private issuers (companies and financial institutions).
- **The ECB extended its purchase programme to securities maturing in less than one year**, including commercial paper issued by companies, local authorities and financial institutions. The market, which dried up temporarily in late February, reopened with outstanding amounts exceeding pre-pandemic levels.

¹ Recommendation No.R-HCSF-2019-1 on lending-related developments in the residential property market

Fiscal measures:

Measures to make up for lost income (partial unemployment scheme, financial assistance for the self-employed) and **cancellations and postponements of business charges** are helping to sustain final demand from households while also supporting companies by lowering their costs at a time when their business has shrunk, drastically in some cases.

Introduction of a EUR 300 billion state-guaranteed loan (PGE) scheme to secure bank loans to businesses. The guaranteed portion covers 90% of loans to small and medium-sized enterprises (SMEs) and 70% for large companies. As at the end of May, over EUR 87 billion in loans had been granted, 80% of which to SMEs, illustrating companies' substantial cash needs as well as the speed with which lenders are reviewing applications.

The European Commission's announcement of its **Next Generation EU recovery plan, which is to be partly financed by common debt** and is designed to support European and national programmes, will help to strengthen national responses.

The financial sector is also playing an essential role in supporting the economy and has taken exceptional measures in this regard. Banks have agreed to establish a moratorium covering around EUR 20 billion in outstanding professional loans. Insurers, meanwhile, are contributing EUR 200 million to a solidarity fund for micro-businesses and self-employed people. Through **credit mediation**, the Banque de France is working to maintain dialogue between banks and businesses and to find financing solutions that are fair to both parties.

2. Structural issues facing the French financial system

Besides these responses to the urgent needs stemming from the economic crisis, the financial sector faces other structural issues:

In terms of market risks, the authorities have noted the relative caution of French institutional investors and are continuing efforts to support the development of new asset classes. With this in mind, they are paying particular attention to ensuring that investors approach these market segments with a sufficient level of expertise to properly understand the risks to which they are exposed.

A general environment of prolonged low interest rates is detrimental to the profitability of financial intermediaries, insurers and banks. The HCSF reiterated the need for insurers to adjust the rates offered to reflect current market conditions and called on them to continue diversifying the products that they market to customers. The council reminded credit institutions of the importance of pricing property loans in a way that ensures proper coverage of costs and risks.

In terms of operating risks, the pandemic has spurred a massive and successful shift in financial activities towards teleworking and remote service provision. In this specific context, some of whose effects are here to stay, the authorities are emphasising the importance of policies to prevent operating risks and notably cyber-risks, whose likelihood of occurring is set to rise. Digitalisation investments in the financial sector must continue to keep step with customer demand and help to promote control over management costs to ensure that profitability recovers in the banking and insurance sector.

Regarding adjustments to the financial system to reflect climate change, whose importance is underlined by the current health crisis, the Banque de France and the ACPR are working on a programme to accelerate the necessary changes and strengthen risk management. The execution in 2020 of a climate review by French banks and insurers is designed to ensure that French financial institutions have the capacity to introduce procedures to manage climate risks. The exercise is intended to measure the exposures and vulnerabilities of the French financial sector to various climate scenarios developed in partnership with industry. The aim is to raise awareness in the banking and insurance sector about climate change risk and its financial consequences, particularly by encouraging institutions to integrate a longer-term view in their strategic decisions.

1. An exceptional economic crisis, an unprecedented response

1.1 From pandemic to global recession

A global recession and a U-shaped recovery, with definite GDP loss through to 2021

After slowing in 2019 amid mounting trade tensions and growing uncertainty, the global economy was hit in late February of this year by the COVID-19 pandemic, which resulted in a major health crisis requiring the adoption of drastic containment measures.

Although restrictions are now starting to be eased, as this report went to press uncertainty still remained about when they would actually be removed. This factor is a key component in the macroeconomic projections. The Banque de France's growth and inflation forecasts assume a lockdown period of eight weeks, primarily in the second quarter of 2020, except in China and other Asian countries, which began their confinement in the first quarter. The forecasts do not factor in the consequences of a major second wave of the epidemic. These assumptions are the same as those used in the forecasts by the International Monetary Fund (IMF – April World Economic Outlook) and are close to those of the European Central Bank (ECB). The ECB's most severe scenario assumes that physical distancing measures will be extended until 2021 if no vaccine is found before then.²

Countries took a wide range of emergency fiscal, monetary and prudential measures to cushion the economic shock caused by the sudden decline in economic activity, providing households and companies with support to promote a swift economic recovery after the health crisis.

Yet even so, uncertainty remains over the possibility of a rapid pick-up in the economy, also called a V-shaped recovery. A gradual recovery over the second half of 2020, in the shape of a bird's wing, has emerged as the most likely scenario for France and the global economy. The exit trajectory from the health crisis will have a major bearing in this regard. Uncertainty linked to future developments in the health situation around the world could dampen activity over a long period and lead to protracted weakness in investment as confidence wanes among economic participants.

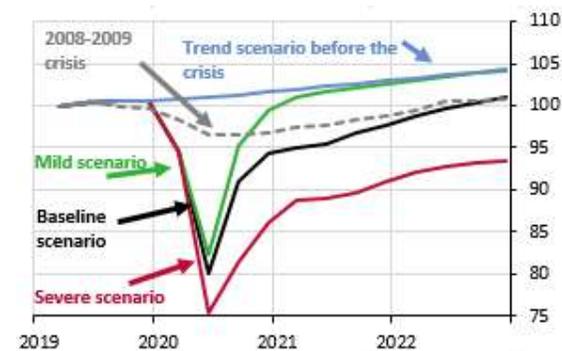
According to Eurosystem estimates published in early June, which factor in the monetary, fiscal and prudential policy measures taken by the main countries, global growth is expected to bottom out in the second quarter of 2020, which would correspond to the peak of the lockdown in many countries.

Overall, global GDP (excluding the euro area) is set to shrink by 4.0% in 2020 before expanding by 6.0% in 2021. The contraction in global GDP far exceeds that seen during the 2008 financial crisis, a characteristic shared by most countries.

Global GDP is not expected to get back to its end-2019 level until mid-2021. Based on estimates by different institutions and depending on the health scenario applied, global GDP is going fall by between 3% and 4% by the end of 2020. According to the ECB, euro area GDP could contract by more than 10% if physical distancing measures are continued in 2021 (under its "severe" scenario).

Chart 1.1: the COVID-19 crisis has had a major impact on activity in France

x: time axis / y: index (Q4 2019 = 100)



Source: Banque de France

² Cf. ECB [press release](#) of 4 June 2020

Banque de France forecasts estimate that economic activity in France, the euro area country that has been third-hardest hit by the health crisis, will see a record fall in 2020 (over 10%), before rebounding in 2021 and 2022 and reverting to its pre-crisis level towards the end of 2022 in the baseline scenario.

After this massive shock, the catch-up process will be spread over time. Projected GDP growth rates for 2021 (7%) and 2022 (4%), while elevated, would still not see activity get back to end-2019 levels until the close of 2022. In 2020, private consumption is expected to fall by slightly less than GDP, while private investment and exports will record more pronounced decreases.

In 2020, household purchasing power should only see a small decline, thanks to the size of budget stabilisers. The household saving rate is expected to jump to 22% in 2020, before falling back again in 2021 and 2022. These “forced” surplus savings, exceeding EUR 100 billion over 2020 as a whole, may be only partially consumed in the coming quarters, depending on how the epidemic and unemployment develop. Unemployment is expected to continue rising until the start of 2021, before starting to decline again. For households, the increase in unemployment will be the main factor that is likely to influence their consumption and solvency, and, by extension, the quality of credit risk (primarily housing-related) to which banks are exposed. Hit by the shutdown in construction, household investment is expected to collapse in 2020, before gradually recovering in 2021 and 2022.

On the business side, the fall in activity is set to be accompanied by a steep decline in investment in 2020, before a pronounced upturn in 2021 and 2022. Combined with the rise in debt, the size of the contraction in activity represents a major risk to business solvency: while it looks as though budget support measures and state-guaranteed loans will deal with the liquidity shock, the strength (or weakness) of the recovery will have a key bearing on the level of company failures.

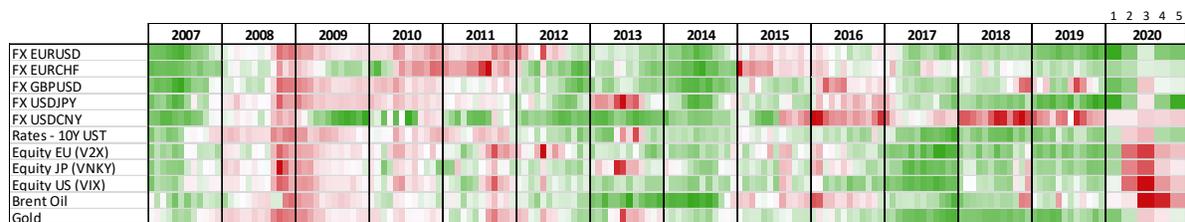
A major impact on developing countries

The contraction in activity caused by the pandemic and associated health measures has hit developing countries with a twin economic and financial shock: global demand has collapsed, with a downturn in commodity prices, while capital outflows have caused exchange rates to fall and drained currency reserves. The risk of a balance of payments crisis for the weakest countries is growing strongly, requiring action by foreign public lenders, i.e. international institutions and lender countries. Among other things, this led to the G20's decision to suspend debt service payments by the world's poorest countries in 2020, which is a necessary although insufficient step towards easing the financial burden on these countries and preventing possible sovereign defaults. The IMF has received emergency financing requests from over 100 member countries and is getting ready to release USD 100 billion to help these countries weather the crisis.

Assessment of the situation by financial markets: a severe correction followed by renewed confidence after the introduction of economic policy measures

Chart 1.2: Volatility

x: year / y: z-score



Sources: Bloomberg, Banque de France calculations

Guide: volatility z-score. Periods of low volatility are shown in green, while periods of high volatility appear in red.

Expectations surrounding the pandemic's global economic impact triggered a severe correction in asset prices starting at the end of February 2020. Two simultaneous factors drove the correction. First, the downside revision to economic growth and business earnings forecasts had an immediate and substantial impact on stock markets, as equity prices tanked and corporate bond yields (financial and non-financial corporations) surged. The implied volatility of the main stock indices and other financial instruments increased sharply as a result. Second, the liquidity crunch generated by the decline in business cash flow and demand for liquidity among investors prompted sales of defensive assets, such as sovereign bonds and gold, in order to obtain cash quickly.

This liquidity crunch was further magnified by the need for financial participants, including banks and their clients, to collateralise financial positions (whether cleared or not by central counterparties) owing to the increased volatility. This fairly unprecedented double movement of risky and non-risky asset sales was driven by a quest for liquidity as companies and investors looked to bolster their holdings of immediately available cash by selling investments in money market and bond funds. Investment funds, meanwhile, had to contend with high withdrawal requests, which led them to sell off their most liquid assets. Finally, at central counterparties (CCPs), the spike in volatility coupled with the increase in trading volumes observed in mid-March resulted in a sharp rise in margin calls, creating additional liquidity requirements for participants.

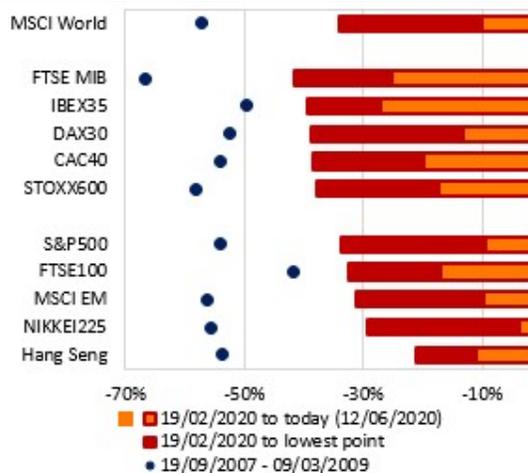
Volatility indices for the main asset classes began surging higher in February, with more pronounced increases for equities and commodities (gold and oil) than for currencies and sovereign yields.

With the outbreak of the health crisis, euro area stock markets corrected sharply, with the European equity index, the Stoxx600, and France's CAC 40 index both losing around 40% between 19 February and 18 March. Global stock markets sustained similar losses, as the S&P500 fell by 34%, while emerging market equities were down 31%.

Markets then rebounded sharply, lifted by support measures by public authorities and especially announcements by central banks (Chart 1.3). By 12 June, the Stoxx600 had rebounded by 33% to sit at 17% below its pre-crisis level. The S&P500 posted an even sharper 37% recovery. By 12 June, it was just 10% below its pre-crisis record level and was back at where it had been in November 2019.

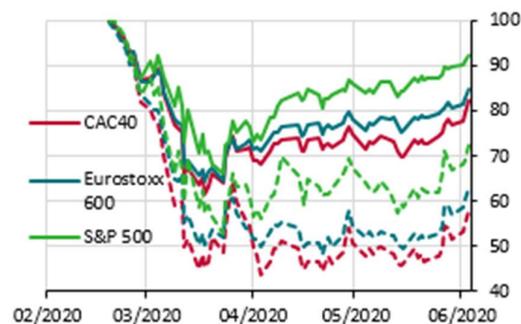
Although uncertainties persisted in early June about company earnings in FY2020, all equity markets clawed back ground, climbing 36% from their lows and wiping out most of the decline seen in March. Markets appeared to react more to measures introduced to support the economy than to the effects of the recession on activity and future company earnings. It is impossible to rule out another downward phase, triggered by an upsurge in the pandemic or massive downward revisions to company earnings in 2020.

Chart 1.3: the COVID-19 crisis has impacted equity markets on a scale rarely seen
x: Total return / y: Equity indices



Sources: Bloomberg, Banque de France calculations
Most recent value: 12/06/2020

Chart 1.4: The banking sector is underperforming other sectors
x: month / y: index



Sources: Bloomberg, Banque de France calculations.
Note: unbroken lines shows the main indices, dotted lines show the banking indices in different geographical areas.
19/02/2020 = 100 Most recent value: 01/06/2020

Some sectors experienced steeper falls in share prices, including the energy sector, in connection with the collapse in oil prices, while tourism, transport and discretionary consumption were hit by health measures and the sudden drop in consumption.

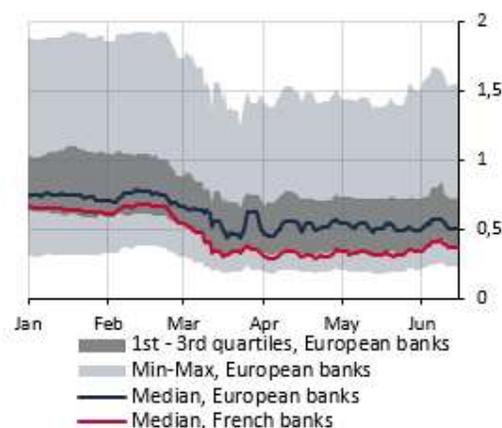
Tech and health put in positive year-to-date (YTD) performances, reflecting the soaring increase in digital services and higher health spending.

Financial stocks (banks and insurers) corrected by more than the market average owing to the decline in interest rates and investor concerns about rising financial risk (Chart 1.4). Financials typically underperform when economic activity receives a negative shock.

Although banks recorded solid results for FY2019,³ the banking sector's recent stock market performance highlighted a number of residual weaknesses among French and European banks: i) the low interest rate environment is undermining profitability by squeezing net interest margins, ii) banks are struggling to control management expenses in order to significantly improve cost-to-income ratios, iii) questions persist about banks' future business models, notably in connection with the sector's digitalisation.

French banks, whose cost-to-income ratios are high notably due to their dense branch networks, have stock market valuation ratios that are structurally lower than those of European banks, highlighting financial markets' low expectations concerning their future profitability. The median price-to-book ratio (Chart 1.5) of French banks, which relates their market value to their book value, was below that of European banks in early 2020 (0.66 compared with 0.74). Meanwhile, the price/earnings ratio of US banks is considerably higher than that of French and European banks (22 compared with 16 for FY 2020)⁴. The Covid-19 crisis has resulted in a sharp fall in price-to-book ratios at all banks. But it has also accentuated the gap between French and European banks, reflecting investors' unfavourable expectations about the profitability of French banks. This situation justifies the measures taken by French banks in three areas, namely to curb management costs, develop new areas of income that are independent of interest margins, and step up the pace of digital innovation.

Chart 1.5: Comparison of price-to-book ratios at French and European banks
x: month / y: price-to-book ratio



Sources: Bloomberg, Banque de France calculations.

Primary markets shut down temporarily and secondary markets were disrupted at times, impacting non-financial corporate borrowers

The spread of the virus led to an abrupt repricing of the risks relating to non-financial corporations. At the same time as equity prices fell, bond spreads rose substantially, while primary bond markets closed down temporarily.

Euro bond yields increased sharply, rising from 0.3% in mid-February 2020 to 2.0% by the end of March 2020 for the investment grade, i.e. top-rated, bonds of non-financial corporations, while yields in the high-yield, i.e. lowest-rated, category climbed from 2.5% to 8.2%. Energy sector, financial sector and consumer sector securities were the hardest hit as spreads widened.

High-yield credit spreads increased sharply: borrowing costs for European high-yield corporations tripled in less than a month, with the yield of the index of European high-yield bonds (ICE BofA Euro High Yield) closing on 18

³ See Analyses & Synthèses report on the situation of French banks in 2019, <https://acpr.banque-france.fr/liste-chronologique/analyses-et-syntheses>.

⁴ Source: Bloomberg (S&P500 bank index vs. Eurostoxx 600 bank index)

March 2020 at just over 7.8%, the highest level since 2012 (Chart 1.6). US securities rated CCC or lower saw their risk premiums rise to 1,828 basis points on 19 March 2020 (Chart 1.7).

Chart 1.6: High-yield debt yields increased sharply...

x: year / y: % yield



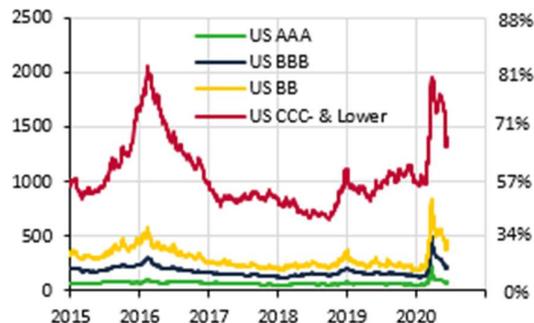
Sources: Federal Reserve Bank of St. Louis, Banque de France calculations

Notes: indices used are ICE BofA US High Yield Index and ICE BofA Euro High Yield Index.

Most recent value: 4 June 2020

Chart 1.7: ... particularly for BB- and CCC-rated debt

x: year / y [left]: spread in basis points / y [right]: implied probability of default on a five-year horizon



Sources: Bloomberg, Banque de France calculations

Notes: ICE BofA indices for IG-rated (AAA and BBB) and HY-rated (BB and CCC or lower) US corporations.

Most recent value: 4 June 2020

In Europe and the United States, activity on the primary bond market contracted sharply: between 17 February and 13 March, bond issues by European non-financial corporations shrank by 80% (just EUR 6.5 billion issued) compared with the same period in the previous year. The French bond market dried up for several weeks, with only three issues between 5 February and 20 March for a total of EUR 2 billion. The European high-yield market remained frozen for about six weeks starting in the first half of March.

Box 1: the commercial paper market revived by ECB intervention

Non-financial corporations (NFCs) also struggled to obtain financing on short-term markets. Issuance of negotiable debt securities, including negotiable European commercial paper (NEU CP) issued on the French market, which had been at elevated levels, fell sharply in mid-March before new issuance ceased almost entirely. This was because the main investors in these notes, French money market funds, which hold approximately 80% of outstanding amounts in EUR across Europe, recorded outflows of more than EUR 58 billion between 19 February and 7 May 2020, before the movement eased off. In fact, the trend then reversed as inflows became clearly positive, with a EUR 16 billion increase between 20 May and 8 June.

Between mid-February and early June, French money market funds thus lost 13% of their assets under management. Since these funds are traditional investors on the commercial paper market, their weakened investment capacity drained a natural investment pool for commercial paper issuers. In parallel, average weekly issuance on the French NEU CP market decreased by 23% from EUR 6.4 billion in March 2019 to EUR 4.9 billion in March 2020. A similar trend was observed in the United States.

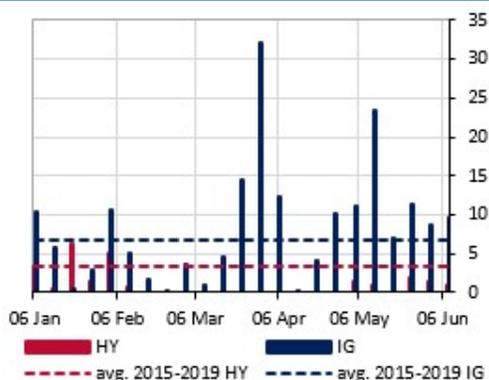
Responding to the fact that the CP market had seized up, the Eurosystem took the innovative step of expanding its private securities purchase programme to short-dated securities, including short-term debt securities, i.e. maturing in less than one year, traded on the CP market and issued, among others, by non-financial corporations for cash management purposes. This made it possible to normalise short-term market financing conditions for non-financial corporations. By the third week after the launch of the purchase programme, companies had managed to raise EUR 9 billion, on a par with volumes recorded at the start of the year, compared with just EUR 1.8 billion in the week preceding the Eurosystem's intervention. The outstanding amount of NEU CP issued by non-financial corporations thus stood at EUR 74 billion on 31 May 2020, up from EUR 58 billion at the end of January 2020.

The combined effect of monetary easing and fiscal support measures introduced in Europe and the United States restored investor confidence and helped trading conditions to normalise on all financial markets.

The corporate bond market reopened quickly, recording sustained levels of activity compared with historical averages, while risk premiums settled at levels well below those observed at the peak of the 2008-09 financial crisis or the 2011-12 sovereign debt crisis.

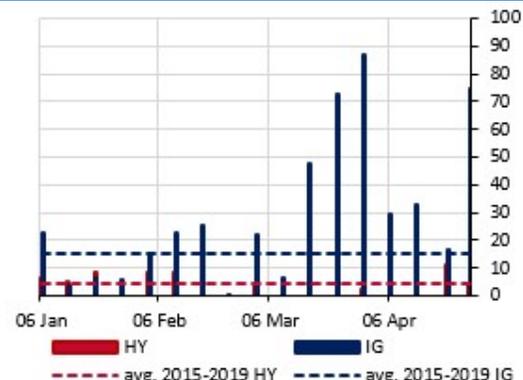
While in the six preceding weeks, issues of debt securities by non-financial corporations in the euro area were well below the 2015-2019 average, issuance rebounded to EUR 14.3 billion and then EUR 32.5 billion in the two weeks beginning 23 March and 30 March respectively, i.e. more than over the 11 previous weeks combined (Chart 1.8).

Chart 1.8: issuance of debt securities by euro area NFCs in 2020
x: week / y: EUR billion



Sources: Dealogic, Banque de France calculations

Chart 1.9: issuance of debt securities by US NFCs in 2020
x: week / y: USD billion



Sources: Dealogic, Banque de France calculations

The chart captures US non-financial corporations that also have a non-financial parent company.

An issuance window opened in April for IG issuers, starting with top-rated issuers followed by the BBB segment. Primary market issuance in the IG segment rose to EUR 49.5 billion in April (Chart 1.8). Although issuance was more expensive than at the start of the year owing to the increase in risk premiums, terms were also more favourable than at the height of the liquidity crisis in March. Access to financing via CP issuance has also opened up progressively, with non-financial corporations issuing more than EUR 30 billion in securities on the French NEU CP market since 28 March (Charts 1.8 and 1.9).

In the euro area, borrowing costs for lower-rated (HY) corporations also stopped rising steeply, enabling some companies to return to the debt market. As of early June, however, interest rates were still higher than in previous years. Borrowing costs for European HY corporations thus stabilised after tripling in less than a month, settling at 5.8% on 5 May, compared with 8% on 23 March (the highest since 2012) and 3.6% on average since 2015. Just EUR 1.1 billion was issued in April, following a month of March that featured virtually no issuance (just two issues worth a combined EUR 60 million).

A moderate overall impact on sovereign risk premiums at this stage in March 2020

Liquidity on euro area sovereign bond markets deteriorated in a setting of heightened credit risk and increased risk aversion.

Measured using bid-ask spreads (Chart 1.10), liquidity hit a six-year low around 18 March.

Looking at the euro area's peripheral countries, Italian government bonds saw the steepest fall in liquidity, as bid-ask spreads (an indicator of transaction costs) rose significantly.

1. An exceptional economic crisis, an unprecedented response

Liquidity stress eased on the sovereign bond market following the announcement on 18 March of the ECB's Pandemic Emergency Purchase Programme (PEPP), a temporary purchase programme covering private and public securities. The PEPP's initial envelope of EUR 750 billion was subsequently increased to EUR 1,350 billion.

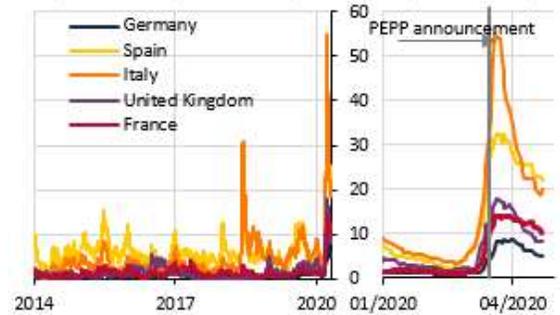
Unlike previous securities purchase programmes, the PEPP has considerable flexibility, not only in terms of purchase flows over time, but also across asset classes (private and public securities) and among jurisdictions (Chart 1.10).

Increased risk aversion led initially to a sharp decline in German sovereign bond yields, whose 10Y interest rate fell from -0.2% on 1 January to -0.9% on 9 March 2020 before gradually converging towards -0.3% in early June.

The increase in 10Y spreads between German and French sovereign bonds was contained, reaching a maximum of 64 basis points over the period, but spreads widened much more significantly for Italian and Spanish sovereign bonds, climbing to 280 and 153 basis points respectively (Chart 1.11).

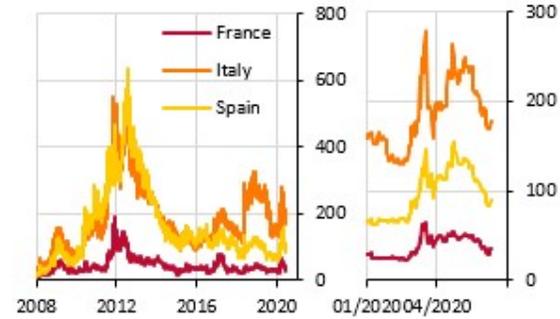
Overall, the increase in funding costs for euro area sovereigns appears contained at this stage given the expected deterioration in their public finances in 2020 and in comparison with the 2011-12 crisis. The cost of refinancing and issuing short-term debt (< 1Y) for the euro area's four largest economies increased by around 30 basis points (Chart 1.12), but from record low levels. Medium- and long-term refinancing costs likewise recorded a noticeable but contained increase (Chart 1.13).

Chart 1.10: Liquidity on sovereign bond markets deteriorated, especially in the euro area's peripheral countries
x: year / y: index



Source: Tradeweb (Tradeweb LCI index values for government bonds with a maturity range from 5.5 to 11.5 years and calculated using bid-ask spreads)
Note: a higher index indicates lower liquidity.

Chart 1.11: 10Y bond spreads
x: year / y: basis points



Sources: Bloomberg, Banque de France
Note: Data at 9 June 2020

Chart 1.12: The cost of short-term debt at issuance increased in April 2020
x: year / y: interest rate at issuance



Sources: Government debt management agencies, Banque de France
Note: Data at 9 June 2020

Chart 1.13: The cost of ST, MT and LT debt at issuance increased for the euro area (Proxy All, Fr, Esp, It)
x: year / y: interest rates at issuance



Sources: Government debt management agencies, Banque de France
Note: Data at 9 June 2020

1.2 Measures by public authorities to safeguard the real economy

A swift and massive response from governments, central banks and prudential authorities

The measures implemented by countries to cope with the economic and social consequences of the COVID-19 crisis were fairly similar in terms of their objectives and methods.

Unprecedented fiscal measures

In Europe: supporting the work of national governments, the European Commission responded to the emergency by helping to set up new safety nets and proposing an ambitious Next Generation EU recovery plan

On 13 March, the European Commission launched the Corona Response Investment Initiative, activated the general escape clause of the Stability and Growth Pact on 20 March, and adopted a Temporary Framework for State Aid.

On 9 April, the Eurogroup agreed in principle to three new protection and support tools (i) for public finances through the European Stability Mechanism (opening up the possibility of providing loans to Member States of up to 2% of their GDP), (ii) for SMEs via the European Investment Bank and a pan-European Guarantee Fund and (iii) for households via the Support to mitigate Unemployment Risks in an Emergency (SURE) programme. In all, the new mechanisms, which will remain in place in 2020, are worth EUR 540 billion.

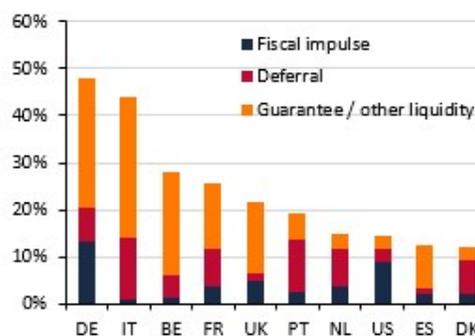
On 27 May, the Commission proposed a EUR 750 billion recovery plan, Next Generation EU, covering the period until the end of 2024. Under the proposal, the Commission would be able to borrow on the markets in the name of the European Union at long maturities (repayment from 2028 to 2058), with a credit rating of AAA.

These two envelopes, worth EUR 540 billion and EUR 750 billion respectively, are on top of the EU's multi-annual financial framework for the 2021-2027 period, which has an overall envelope of EUR 1,100 billion, giving a total of close to EUR 2,400 billion.

In France: approximately EUR 500 billion (20% of GDP) for companies and households

Most advanced economies have introduced fiscal plans of unprecedented size (over 10% of GDP in the United States, over 20% of GDP in the United Kingdom and in France, including France's EUR 300 billion state guarantee scheme). These plans are chiefly aimed at non-financial corporations and are designed to cover their financing needs and cash consumption resulting from the abrupt downturn in business (social security charges and tax deadlines cancelled or pushed back, loan moratoria, state guarantees for new loans). They are also designed to help maintain household income (support and extension of partial unemployment scheme in the EU and in France with EUR 24 billion provided to over 12 million employees by mid-May, expanded access to unemployment insurance in the United States, childcare assistance, assistance for low-income families, support for self-employed people).

Chart 1.14: Fiscal response
x: selected countries / y: % of GDP



Source: Bruegel Institute

Credits designed specifically for micro companies were released in a number of countries, including France, which set up a solidarity fund (approximately EUR 7 billion) and introduced measures targeting the weakest companies and firms hardest hit by the crisis (suspension of commercial rents, charge cancellations). EU Member States also increased spending on hospital and health services (between EUR 3 billion and EUR 10 billion depending on the country, EUR 8 billion for France).

Several countries whose existing welfare schemes had proven inadequate implemented direct fiscal support measures, paying stimulus cheques directly to the most disadvantaged households. These countries included the United States (USD 300 billion), South Korea (EUR 10 billion) and Japan (EUR 80 billion).

While the support plans are similar in terms of their overall size, including those of the European Union and the United States, approaches and resources vary from country to country, particularly reflecting their fiscal room for manoeuvre. Germany, for instance, is using capital contributions to help companies, with EUR 100 billion provided to a strategic fund. At this stage, France has provided just EUR 20 billion through this approach.

In the case of companies, following the European Commission's decision to ease the strict rules governing state aid, EU Member States are now authorised, subject to certain conditions, to provide assistance to firms affected by the crisis by taking a stake in their capital or by providing concessional loans. Such companies may not pay dividends or bonuses and are likewise prohibited from conducting share buybacks or acquisitions. This situation may last for up to seven years.

Given the asynchronistic nature of confinement measures, these various plans were also adopted at different times in order to meet the specific needs identified in each jurisdiction.

Monetary policy measures: massive deployment of unconventional tools

Central banks redeployed the unconventional monetary policy tools used in 2007-2008 and 2011. In places where policy rates were still in positive territory, such as the United Kingdom and the United States, they were cut to record low levels (0.1% in the United Kingdom, 0-0.25% in the United States). Huge net asset purchase programmes were redeployed, with the Eurosystem launching the Pandemic Emergency Purchase Programme (PEPP), which was initially set at EUR 750 billion on 18 March then increased to EUR 1,350 billion on 4 June (equivalent to 11% of euro area GDP), while the United States Federal Reserve (Fed) and the Bank of England offered potentially unlimited quantitative easing. These efforts were joined by new instruments and extensions to existing mechanisms aimed at correcting weaknesses specific to the current crisis, with the Fed offering programmes to facilitate the financing of money market funds and access to business financing on primary and secondary markets,⁵ the ECB conducting commercial paper purchases under the PEPP, and the Fed also extending provision of dollar liquidity to new counterparties. The Fed estimates its total support for the real economy at approximately USD 2.3 trillion, or more than 10% of US GDP (USD 600 billion Main Street Lending Programme for SMEs, USD 500 billion Municipal Liquidity Facility for states and municipalities, debt purchases worth around USD 1,000 billion).

Box 2: The ECB's monetary policy response to the COVID-19 crisis

Measures of exceptional size...

- Immediate and unlimited liquidity support for the euro area banking system (LTRO, TLTRO III, 3M USD tenders), at rates as low as -1%.
- APP purchases increased followed by introduction of the EUR 750 billion PEPP to maintain favourable financing conditions for the real economy and prevent fragmentation of euro area markets by using a flexible approach in terms of purchase flows over time, across asset classes and among jurisdictions.
- Expansion of eligibility for assets accepted as collateral for Eurosystem refinancing operations, notably to include non-investment grade securities.

⁵ Measures implemented by the Fed in response to the COVID-19 crisis: <https://www.federalreserve.gov/covid-19.htm>

... which helped to stabilise financial markets and financing conditions for the real economy.

- Volatility in the market environment was still high, but well down from March's record peak.
- Sovereign spreads over the Bund and EUR credit spreads tightened owing to the Eurosystem's massive public and private securities purchases.
- Gradual recovery on equity markets.

Measures announced on 4 June further boosted the mechanism to protect the transmission of monetary policy throughout the euro area and prevent inflation from being anchored at overly low levels

- EUR 600 billion increase in the PEPP envelope to a total EUR 1,350 billion.
- Purchases extended to June 2021
- Payments from maturing securities to be fully reinvested until the end of 2022

Timeline:

12 March: Asset purchase programme (APP) increased by EUR 120 billion, requirements eased for Targeted Long-Term Refinancing Operations (TLTRO III), Bridge Long-Term Refinancing Operations (Bridge LTRO) with favourable terms introduced.

15 March: new 3M dollar liquidity provision operations introduced for euro area banks.

18 March: launch of EUR 750 billion Pandemic Emergency Purchase Programme (PEPP) (6.3% of euro area GDP), extension of purchases under the Corporate Sector Purchase Programme (CSPP) to include commercial paper, extension of PSPP purchases to securities maturing in less than one year.

7 April: Expansion of eligible collateral, notably to include state-guaranteed loans, reduction in haircut for securities and credit claims accepted as collateral

22 April: Application of grandfathering clause to portfolio securities or securities accepted as collateral that are downgraded to high yield.

30 April: TLTRO III rate cut to 50 basis points below the deposit facility rate for the June 2020-June 2021 period, launch of new Pandemic Emergency Longer-Term Refinancing Operations (PELTRO).

4 June: PEPP increased by EUR 600 billion, bringing the programme's total envelope to EUR 1,350 billion.

Micro- and macroprudential measures for banks and insurers: flexibilities introduced after the great financial crisis activated for the first time.

In the banking sector, macroprudential and microprudential authorities activated the flexibilities provided for by regulations introduced after the 2007-2008 crisis (countercyclical buffer reduced to 0% in France, Germany and the United Kingdom, announcement about the possibility of drawing on preventive liquidity and capital buffers, “freeing up” close to EUR 400 billion in capital at banks under ECB supervision) and decided to delay the application of new rules (certain aspects of Basel III standards) and postpone several exercises and assessments, including EBA stress tests and ESMA's holistic impact assessment.

The competent authorities also called on financial institutions not to distribute dividends in order to hold onto the necessary capital. The temporary easing of prudential rules, combined with monetary policy easing, was designed to allow banks to respond promptly to the corporate sector's massive demand for financing, while still being in a position to absorb potential future losses.

National and European recommendations were issued to the insurance sector with a view to striking a balance between profitability and policyholder protection. In April, insurers announced that they were increasing their contribution to the efforts by all participants amid the crisis (EUR 400 million contribution to solidarity fund, goodwill gestures worth an estimated EUR 1.3 billion, EUR 1.5 billion investment plan). Use of these tools represents an innovative step forward from the financial crisis of 2008 and reflects the effect of reforms designed to learn the lessons from that period. However, there has been some debate over insurance coverage of business interruption.

Box 3: Brexit amid the health crisis

The crisis is taking place during the transition period provided for by the exit agreement, which has placed the United Kingdom in a unique situation since the end of January 2020. The country remains under European Union (EU) law until 31 December 2020, but no longer participates in any of the union's governing bodies. Accordingly, it is still concerned by most of the decisions taken by the Union in response to the COVID-19 crisis, including for example the measures to ease Stability and Growth Pact requirements or the financing released by the European Commission from the current budget (EUR 37 billion).

Like EU countries, the United Kingdom is likely to be severely affected by the crisis. The OECD's June 2020 economic outlook suggests that the United Kingdom will suffer one of the worst recessions following the COVID-19 crisis, with GDP expected to contract by 11.5% and an unemployment rate of approximately 9% in 2020. If a second wave of infections occurs, this forecast is revised to a 14% contraction with an unemployment rate of approximately 10%. If the health situation becomes manageable, removing the need to implement new health protection measures, economic growth is forecast to rebound the following year, with a 9% increase in 2021 (compared with just 5% if a second wave occurs) and an unemployment rate of slightly below 8%.

The crisis has delayed negotiations: most of the meetings scheduled for March were held by video conference. Many issues are at stake, including access to service providers, recognition of UK auditors on the European market, recognition of professional qualifications, and the granting of equivalences in financial services.

With conditions surrounding the talks becoming more challenging, uncertainty persists over whether the transition period might be prolonged. The two parties, acting through the Joint Committee, have until 30 June 2020 to request a postponement, which can be for a maximum of two years. Despite the current crisis, the United Kingdom has stuck to its position so far, refusing to consider any extension of the transition period beyond 31 December 2020.

As a result, it is still possible that no deal will be reached on future relations by 31 December 2020. The economic impacts of Brexit would then compound the effects of the health crisis, for the United Kingdom and for the EU alike, further fuelling the economic uncertainty. However, the Banque de France and the Autorité de contrôle prudentiel et de résolution (ACPR – Prudential Supervision and Resolution Authority) are not unduly concerned about the readiness of French participants for such a scenario, given the contingency plans and measures implemented by the entire financial sector, under the watchful eye of supervisors, since 2017.

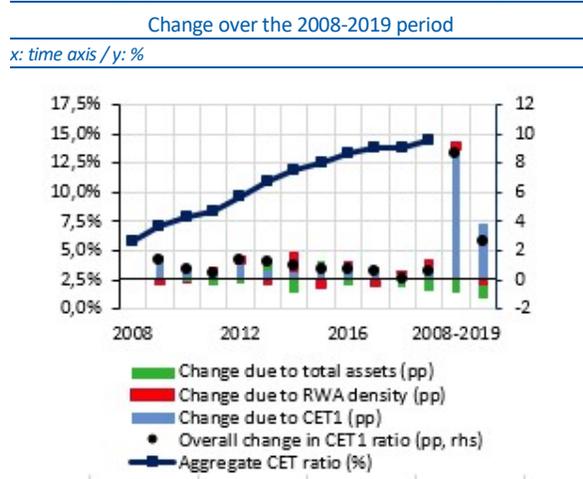
Financial participants have built up the capacity to cushion the macroeconomic shock

French banks have greatly increased their shock-absorbing capacity since the 2008 crisis

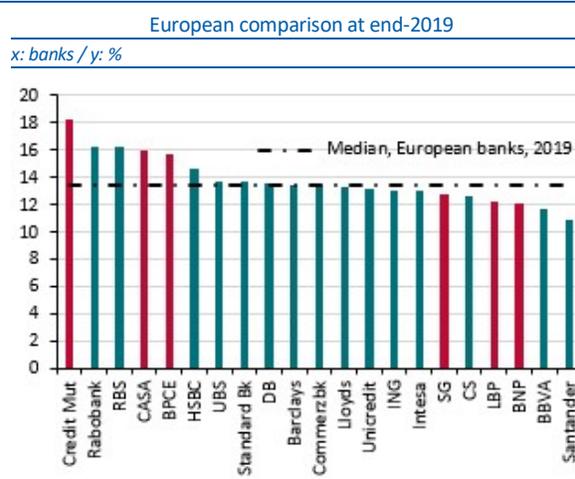
Since the financial crisis of 2008-2009, efforts to strengthen the international prudential banking standards set by the Basel Committee and the regulatory adoption of these standards in the European Union have led credit institutions to strengthen i) the quality and amount of their capital and ii) their funding structures.

Premiums on credit default swaps (CDS), agreements that allow investors to protect themselves against default, illustrate the solidity of French banks. The price of protection against a default by one of the major French banks has fallen steeply since the sovereign debt crisis. Although premiums jumped when financial market stress was at its highest, they remained contained, in a sign of the French banking system's ability to weather the crisis whilst continuing to finance the economy.

Chart 1.15: Aggregate CET1 ratio of the six main French banking groups



Sources: BAFI/SURFI, FINREP and COREP regulatory reports, ACPR calculations⁶⁷



Sources: S&P Global Market Intelligence and financial reporting

Chart 1.15 shows that prior to the COVID-19 crisis, the six main French banking groups⁸ raised their solvency ratios substantially from 2008 onwards chiefly by increasing their core, or common equity tier 1 (CET1), capital. After more than doubling their CET1 solvency ratios in the space of 12 years, French banks are much better positioned to absorb potential future losses. In FY2019, the six main French banking groups strengthened their capital by half a percentage point.

All of them comply with minimum leverage and solvency requirements, taking into account the various regulatory buffers, including the pillar 2 buffer, the capital conservation buffer, the buffer for systemically important institutions and the countercyclical buffer. However, at end-2019, the CET1 ratios of French banks exhibited pronounced dispersion, with the three mutual groups well above the European median and full-service banks below.

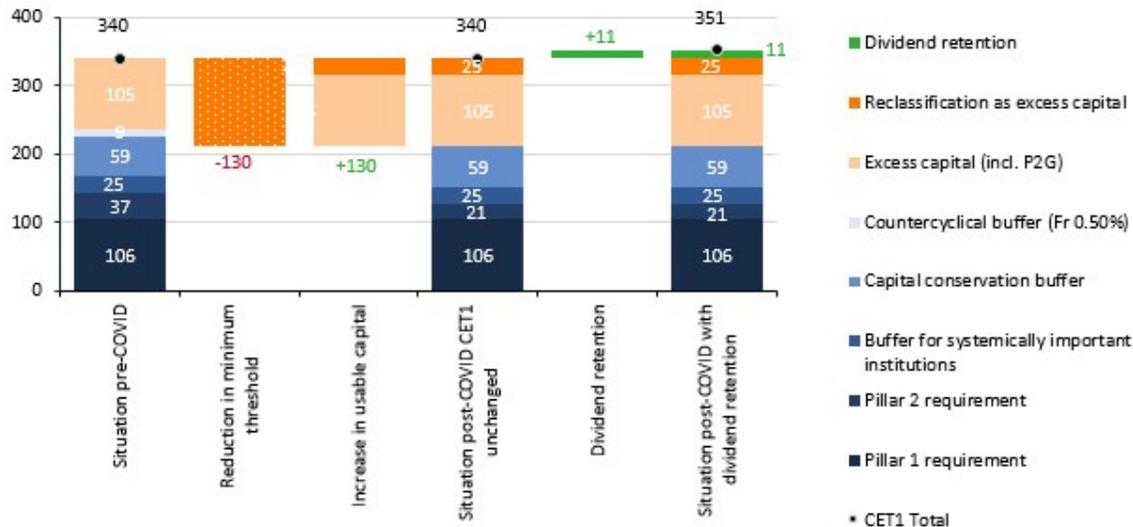
⁶ As far as possible, regulatory and reporting breaks have been restated to present CET1 and risk-weighted assets that are consistent over time with full CRR/CRD4 measures.

⁷ The decomposition of contributions to changes in the solvency ratio follows that proposed by Cohen & Scatigna (2014), "Banks and capital requirements: channels of adjustment", BIS Working Paper No. 443.

⁸ BNPP, BPCE Group (GBPCE), Cr dit Agricole Group (GCA), Cr dit Mutuel Group (GCM), La Banque Postale (LBP) and Soci t  G n rale (SG).

Furthermore, France's four global systemically important banks⁹ (G-SIBs) are comfortably in compliance¹⁰ with total loss-absorbing capacity ratio (TLAC) requirements, which came into force in 2019.

Chart 1.16: CET1 decomposition for the six main French banks
x: time axis / y: EUR billion



Source: ACPR

Finally, **French banking groups can point to solid funding structures**,¹¹ both in the short term, with elevated reserves of liquid assets (EUR 989 billion) and an aggregate average short-term liquidity coverage ratio (LCR) of 132%, and also in the medium term, with a net stable funding ratio (NSFR) of 105%.

These positives must not cause certain residual weaknesses of European and French banks to be overlooked: i) profitability has been hurt as the low interest rate environment has squeezed net interest margins while **ii) banks have struggled to improve their cost-to-income ratios significantly** because of the pressure on margins and challenges in controlling management expenses.

While the international banking sector was the main vector of the 2008 crisis, **the solid position of French banks at the end of 2019 means that the banking system is playing a central role in transmitting the fiscal and monetary supports** (cf. previous section) decided on by European countries and the European Central Bank to cope with the economic impact of confinement measures.

Technical prudential measures¹² **have further strengthened banks' capacity to respond to the real economy's increased financing needs and support the recovery**, despite the short- and medium-term risks, primarily linked to a deterioration in asset quality, to which they are exposed (cf. parts 3 and 4).

The measures introduced to ensure that banks are able to support an increase in lending to the real economy can be grouped into six objectives. Namely:

9 BNPP, BPCE, GCA, SG.

10 Analyses & Synthèses report on the situation of French banks in 2019, <https://acpr.banque-france.fr/liste-chronologique/analyses-et-syntheses>

11 Ibid.

12 Measures decided by international, European and French regulatory and supervisory authorities, including the Basel Committee, European Commission, European Banking Authority (EBA), Single Supervisory Mechanism (SSM), HCSF and ACPR.

1. **Ease liquidity management restrictions** through an authorisation to draw on liquid asset reserves and operate with an LCR of below 100% to be able to respond quickly and massively to loan demand from NFCs without being bound by liquidity constraints.
2. **Lower minimum capital requirements.** On 12 March, the SSM authorised banks to i) operate below the capital level defined by Pillar 2 Guidance (P2G) and ii) draw on the capital conservation buffer (CCB). The quality of capital required to meet Pillar 2 Requirements (P2R)¹³ was partially expanded to include additional Tier 1 and Tier 2 instruments, thereby relaxing CET1 restrictions. These measures were supplemented in late March by macroprudential decisions lowering capital requirements in relation to countercyclical buffers (CCyB) applicable in some European countries. In France, the *Haut Conseil de stabilité financière* (HCSF – High Council for Financial Stability) lowered the countercyclical capital buffer rate to 0% on 2 April 2020, whereas the rate was due to be raised from 0.25% to 0.5% on 1 April.
3. **Strengthen capital by not paying dividends.** By adhering to SSM and ACPR recommendations on suspending dividend payments to shareholders in respect of FY2019, banks further strengthened their capital, adding to the half-point or so increase in the CET1 ratio at the end of 2019.
4. **Measures to ease leverage ratio restrictions are to be introduced in the CRR to avoid hampering monetary policy operations** (under the European Commission's "quick fix" proposal, which was still being discussed by the European Council and Parliament in early June 2020). The idea is twofold: give commercial banks' central bank reserves a partial exemption from inclusion in the leverage ratio calculation, offset by an increase in the adjusted leverage ratio (aLR). This adjusted ratio would not be raised if commercial banks' central bank reverses subsequently increased.
5. **Mitigate the unintended procyclical effects of certain accounting and prudential regulations relating to the quality of claims:** authorities have encouraged banks to exercise flexibility and discernment in the accounting and prudential treatment of claims restructured under debt moratoria, to prevent these overarching measures from automatically resulting in massive impairments that would generate procyclical effects. Authorities have also provided for an extension to the transitional phase for the recognition in prudential capital of the switch to expected credit loss provisioning for performing loans linked to IFRS 9.
6. **Ease operational restrictions to allow firms to concentrate on their essential functions:** EBA has decided to delay its 2020 stress test by a year, extra time has been given for filing some regulatory reports and also for regulatory impact analyses (Basel Committee and EBA quantitative impact study (QIS)).

Regulatory and prudential reforms introduced after the financial crisis have made the insurance sector more resilient

The crisis is also set to have a significant impact on the insurance sector's results in 2020, even if it is too early to estimate the size of the effects precisely. On the income side, financial and premium income are expected to decline. On the claims side, the impact is likely to vary considerably from one area of activity to another. The insurance sector is however sufficiently solid and well capitalised to honour all of its commitments and withstand even the most severe scenarios. At 31 December 2019, the French insurance industry's overall solvency capital requirement (SCR) coverage ratio had increased to 265%.

In early 2020, French insurers were operating with a solid SCR coverage ratio, despite the low level of interest rates

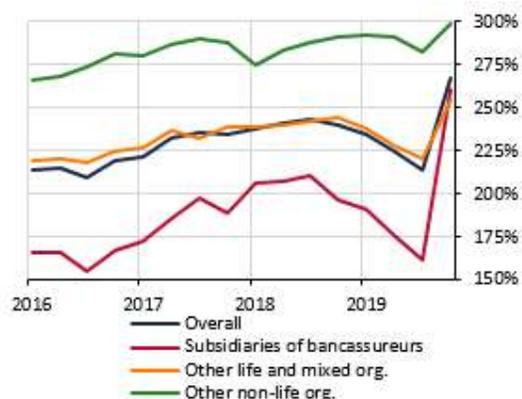
Like French banks, French insurers are operating with enough financial room for manoeuvre to weather the crisis. Implementation of Solvency II regulatory provisions introduced since the 2008 crisis has helped to bolster the insurance sector's financial strength. Since the Solvency II Directive came into force in 2016, French insurance undertakings have regularly posted solvency ratios of over 200% on average, which illustrates the sector's financial soundness.

¹³ Measure taken in advance of the Fifth Capital Adequacy Directive scheduled to come into force at the end of 2020.

The decline in rates in 2019, in the context of the low interest rate environment in place since 2014, and volatility on financial markets due to the coronavirus crisis, have affected the financial situation of French insurers and especially SCR coverage levels (see December 2019 Risk Assessment).¹⁴ The average SCR coverage ratio of life insurers declined between end-2018 and the end of the third quarter of 2019 before rising again by 31 December, driven by the combined effects of an increase in rates towards the end of the year, authorisation to include a portion of profit-sharing reserves in capital (see Box) and a change in the procedures for calculating the solvency ratio (see Box 4).

Insurance undertakings also introduced measures to bolster their financial situation, with some conducting capital increases or issuing subordinated debt and others suspending or deferring dividend payouts. Over 2019 as a whole, insurers thus improved their SCR coverage ratio overall, with the average rising to over 250% by the end of 2019 (Chart 1.17). The first few months of 2020 show that the deterioration in the environment had an immediate impact, with solvency ratios declining by around 20 to 30 basis points between 31 December 2019 and 31 March 2020.

Chart 1.17: Average SCR coverage ratio of insurance undertakings subject to Solvency II
x: year / y: average SCR coverage ratio as a %



Source: ACPR

Box 4: Order of 24 December 2019 on surplus funds in life insurance

An order on surplus funds in life insurance was published on 24 December 2019. It authorises struggling insurance undertakings (SCR not covered and negative underwriting income) to tap into their profit-sharing reserve (PSR)¹⁵ under specified conditions.¹⁶

This provision allows undertakings to include profit-sharing reserves not due in less than one year under eligible capital to cover capital requirements. These amounts represented over 15% of the eligible capital to cover the capital requirements of insurance undertakings with a life business as at the end of 2019. Inclusion of these reserves, which insurers have built up over years, made it possible to raise capital requirement coverage by 30 points on average. Authorisation to draw on the PSR to cover losses will be issued only if a plan is provided by the undertaking and approved by the ACPR. Among other things, the plan must provide for the repayment, based on future income and within eight years, of any amounts taken from the PSR, along with a ban on paying dividends until the sums taken from the reserve are repaid.

Impact of the coronavirus epidemic on the liabilities of non-life insurers

The effects of the crisis will vary across different areas of insurance business. Some areas may have seen fewer claims during the lockdown, but that does not rule out a subsequent catch-up.

¹⁴ https://publications.banque-france.fr/sites/default/files/medias/documents/ers2019s2_final_webv1.pdf

¹⁵ The profit-sharing reserve (PSR) is a financial reserve that insurers can use to spread profit-sharing payments to policyholders over time. Profits must be shared within eight years. Under the Insurance Code, policyholders must be allocated at least 85% of net financial income and 90% of underwriting income.

¹⁶ The order on surplus funds in life insurance of 24 December 2019 provides that an insurance undertaking may tap into the PSR only in exceptional situations, where the life insurance underwriting income account for the previous financial year shows a negative balance and where the SCR is no longer covered. The undertaking must also provide the ACPR with a plan providing for the return within eight years of any amounts taken from the reserve and for the non-payment of dividends until these sums have been returned.

While there was a decline in claims in auto insurance (32% of premiums earned in 2018) during the lockdown, prompting some insurers to return a portion of paid premiums to policyholders, in health, the downturn in medical consultations and purchases of equipment such as glasses is more likely to result in deferred purchases.

Table 1: non-life insurance market in 2018

2018 EUR billion	Premiums for the year	Underwriting income
Total direct business	68	5.0
o/w misc. fin. loss	1.8 2.6%	0.2
o/w credit	0.2 0.3%	0.0
o/w surety	0.4 0.6%	0.2
o/w death & disability	4.6 6.8%	0.8

Source: ACPR

Given the current uncertainties, it is harder to assess the impact on other areas, particularly business interruption insurance, credit insurance, which covers SME trade receivables, surety insurance, which protects consumers against financial failure by professionals, and death & disability insurance, which provides cover against work stoppages.

Credit and surety insurance

In the case of credit insurance,¹⁷ the government has partnered with insurers to set up a public reinsurance scheme (run by Caisse Centrale de Réassurance and BPI France with a government guarantee) to maintain the provision of credit insurance to French SMEs and mid-tier firms, similar to the scheme that was put in place in 2008-2009 and maintained for two years. Insurers have called for a similar scheme to be put in place for surety insurance.¹⁸

Death & disability

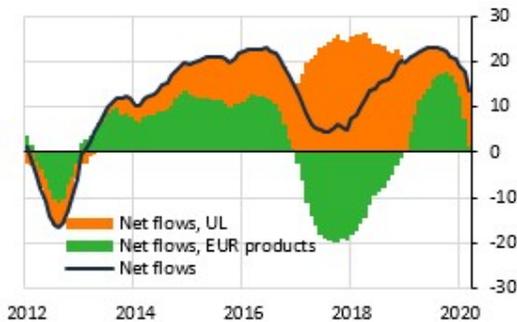
The current crisis is taking place during an already challenging time for the death & disability sector, which features a large number of participants. Since 2012, this sector has been forced to review its business model in order to improve profitability. It has been affected by the increase in work stoppages and by greater use of partial unemployment schemes and is likely to be impacted by a rise in business failures. Commitments on locking in policyholder prices are also going to affect their results.

Impact on life insurance, in an environment of historically low rates

A period of forced saving, directed mainly into bank deposits

Chart 1.18: Net cumulative life insurance flows (12-month period)

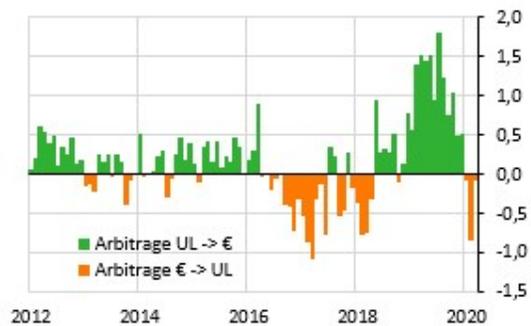
x: year / y: billion EUR



Source: ACPR

Chart 1.19: Cumulative switching from euro-denominated funds to unit-linked products (12-month period)

x: year / y: billion EUR



Source: ACPR

17 Credit insurance covers trade receivables against the risks of non-payment by customers.

18 Surety insurance is for companies that need a financial guarantee to operate, such as property developers, driving schools, temporary staffing agencies, forestry developers, transport companies and firms in the wine industry.

The sharp increase in retail saving in France during the lockdown caused bank deposits to swell by EUR 45 billion in March and April, with EUR 27.7 billion going into sight deposits and EUR 17.3 billion into interest-bearing deposits. New lending slowed over the same period, which saw net credit flows turn negative in April (EUR -4.2 billion), after being more or less stable in March (EUR -0.3 billion). All in all, excluding non-bank investments, households' net financial savings surplus (cash + deposits – loans) amounted to EUR 22.5 billion in March and EUR 31 billion in April, for a combined total of EUR 53.5 billion.

Gross inflows into life insurance, and notably into euro-denominated products,¹⁹ slowed dramatically from the start of 2020 (Charts 1.18 and 1.19), although the measured increase in surrenders did not signal a loss of confidence in life insurance. The slackening pace of inflows into euro-denominated products forms part of a trend that predated the crisis. For a number of years, life insurers have sought to curb inflows into euro-denominated products in favour of unit-linked (UL) funds, which expose insurers to less interest rate risk than euro-denominated contracts, whose returns are guaranteed.

While flows are increasing into UL products, which are likely to offer better returns but involve risk, retail savers typically seek safety in times of financial upheaval. This causes them to switch out of UL contracts and into euro-denominated funds when risky assets, such as equities and corporate bonds, fall. The start of 2020 was a notable exception in this regard.

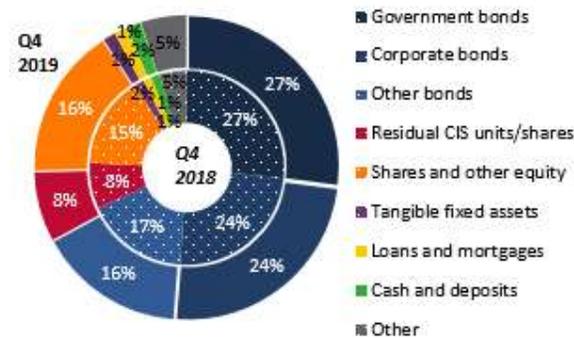
Life insurers have not significantly changed their asset allocation

Market volatility due to the coronavirus crisis represents an additional risk for life insurers, whose profitability was already being hurt by the prolonged low interest rate environment.

However, despite a decline in asset returns in recent years, insurers have made few changes to their overall asset allocation, which continues to prioritise safe and liquid investments, such as sovereign bonds (27% of investments after application of the look-through approach), NFC bonds (24%), financial sector bonds (16%) and shares and other equity (16%). Accordingly, the share of the riskiest assets – shares excluding UL products and equity investments, loans and low-rated debt securities – remained at a stable and low level of around 8% at the start of the crisis (Charts 1.20 and 1.21).

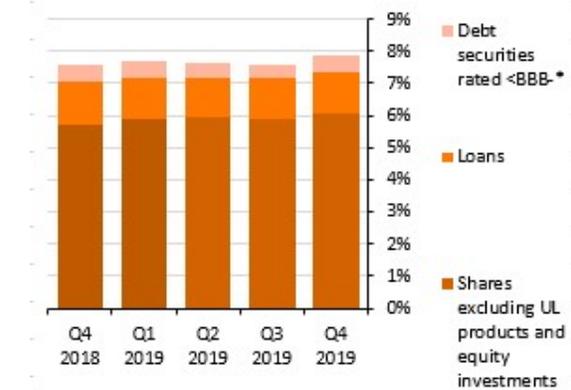
The share of liquid, high-rated investments also equips insurers to cope in the current setting with potential delays in collecting business contributions for the death & disability sector in particular or an increase in life insurance surrenders.

Chart 1.20: Decomposition of insurers' assets in Q4 2018 and Q4 2019
Each ring represents the decomposition at a given date



Sources: ACPR and DGSEI

Chart 1.21: Breakout of risky investments*
x: time axis / y: %



Sources: ACPR and DGSEI

*Rating applies to bonds, structured securities and guaranteed securities.

¹⁹ Euro-denominated funds are investment vehicles that are invested essentially in government bonds and for which investors provide a permanent liquidity guarantee as well as a capital guarantee that is adjusted based on past performances. They are different from unit-linked contracts, where the investor alone bears performance and liquidity risk.

2. Pre-existing vulnerabilities

2.1 The shock is exacerbating concerns about the sustainability of private and public debt

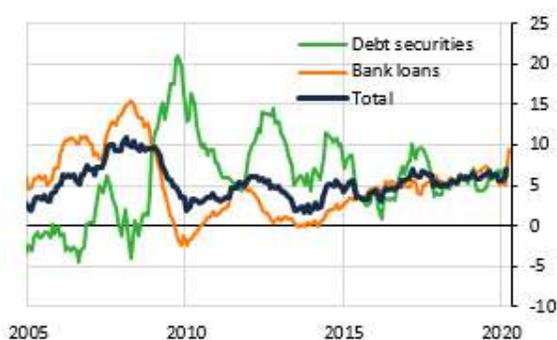
The level of corporate debt is a factor of weakness during a sudden reversal in activity

Trend increase in debt over the last decade

The consolidated debt of French companies amounted to EUR 1,779 billion at the end of 2019, or 73.5% of GDP, which was 12.6 percentage points higher than the euro area average. In the last decade, the debt of French companies has increased by 13 points of GDP, while that of euro area companies has decreased by 3.1 points (Chart 2.1). This trend continued in 2019: corporate debt increased by 5.7% in 2019 after 5.8% in 2018 (Chart 2.2).

Chart 2.1: Growth rate of corporate debt

X: year / y: %



Source: Banque de France

Chart 2.2: Ratio of NFC debt to GDP*

x: year / y: %



Source: Banque de France

Two main reasons may be put forward to explain the increase in debt. Some companies took on debt in order to build up cash and short-term securities (which can be easily mobilised), while scaling back their financial investments. As a result, their holdings of money market assets doubled as a proportion of GDP to reach 29% in 2019.²⁰ This trend was driven particularly by large companies, which accumulated cash reserves for example to finance acquisitions. Meanwhile, some large international companies took on debt at the parent company level in order to redistribute the funds to foreign subsidiaries through intercompany loans and thus finance foreign activities. Expressing their debt solely as a proportion of French GDP somewhat skews the picture provided by the ratio, as this conglomerate feature is not found in all EU countries. Using granular data that captures both of these factors, the IMF estimated that the debt ratios of French companies were in line with those of their peers.²¹

However, over the more recent period, a third reason may be proposed, which is that large companies have modified their funding structures to make more use of debt, taking advantage of the low interest rate environment to optimise their funding costs.²² The decline in interest rates seems to have led to a relative decrease in the cost of debt relative to that of equity.²³ This assessment prompted France's HCSF to adopt a measure in 2018 to limit the concentration of bank exposures to the most highly indebted NFC groups.²⁴ At-risk

20 [“Is the increase in French firms’ indebtedness a cause for concern?”](#), Marie-Baïanne Khder and Clément Rousset, INSEE Note de conjoncture, December 2017

21 [“France Financial Sector Assessment Program Technical Note Nonfinancial Corporations”](#), IMF Country Report No. 19/321, Financial Sector Assessment Program France, October 2019

22 [“Le recours croissant des grands groupes français à l’endettement: une stratégie de financement qui montre ses limites”](#), Bulletin Banque de France No. 226: Article 4, by H. Charasson-Jasson

23 [“Cost of equity and corporate profitability in France”](#), Clément Mazet-Sonilhac and Jean-Stéphane Mésonnier, Banque de France Eco Notepad, Post No. 32, October 2017

24 [Decision No. D-HCSF-2018-2 of 11 May 2018 on the major exposures of systemically important institutions.](#)

debt, according to the HCSF's definition, issued by companies with poor debt ratios, totalled around EUR 200 billion in 2018.²⁵

Indebted companies facing an unprecedented cash shock

The global health crisis and the measures needed to contain it have severely impacted business activity. The decline in revenues, which averaged 32% per week of confinement in March and 27% per week in April, greatly curtailed the ability of firms to generate:

- i. the cash needed to meet payments coming due (liquidity problems and risk of payment suspensions) and,
- ii. affected their earnings and by extension their capital levels.

The scale and acuteness of this liquidity shock remain highly uncertain. Moreover, how the shock is dealt with will depend on how fast economic activity gets back to more normal levels.

Table 2.1: impact of containment measures on activity (data in % at end-April 2020)

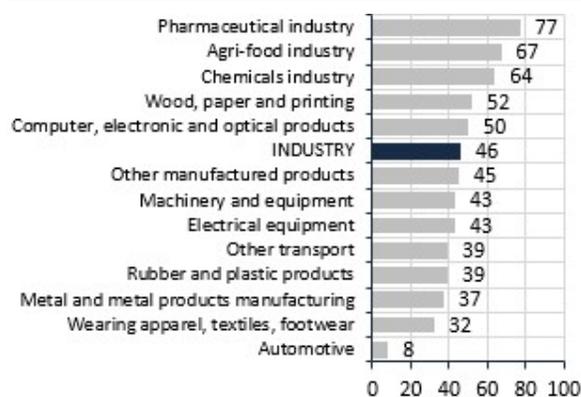
Sector	Share of value added	Impact of lockdown on activity	
		Typical week March	Typical week April
Agriculture and industry	15	-31	-25
Agriculture and agri-food	4	-6	-3
Energy, water, waste, coking and refining	3	-15	-17
Manufacturing industry excluding food, coking and refining	9	-48	-37
Construction	6	-75	-75
Market services	57	-37	-27
Wholesale and retail trade, transport, accommodation and food services	18	-65	-47
Financial and property services	17	-12	-3
Other market services	22	-34	-28
Non-market services	22	-9	-16
Total	100	-32	-27

Source: Banque de France

The business and cash shock varied considerably from sector to sector, not only in terms of the level, but also the recovery trajectory. In its *Update on business conditions at the end of April 2020*,²⁶ the Banque de France estimated that activity in the economy as a whole fell by 27% in a typical lockdown week according to the data available at the time of the survey (Table 2.1). Looking closer, though, the decline was 75% in construction, 47% in trade, transport and accommodation, and 37% in manufacturing industry, which itself featured a wide spread of performances, as illustrated by capacity utilisation rates (Chart 2.3). Conversely, activity was estimated to have declined by 3% in agriculture and agri-food.

Chart 2.3: Capacity utilisation rates in industry for the month of April 2020 (%)

x: % / y: industry classification



Source: Banque de France

²⁵ "Do highly indebted large corporations pose a systemic risk?", Cyril Couaillier, Dorian Henricot, Julien Idier, Banque de France Eco Notepad, Post No. 147, January 2019

²⁶ *Update on business conditions at the end of April, Banque de France, 12 May 2020*. These results were taken from the Banque de France's monthly business conditions survey, which looked at a sample of 8,500 firms between 28 April and 6 May and covered a complete month of lockdown. In its economic outlook published on 7 May 2020, INSEE estimated the loss of activity at 33% for the economy as a whole. The difference may be partly due to the fact that the Banque de France's survey was conducted slightly more recently than INSEE's.

The cash shock hit companies with strained cash positions especially hard. SMEs appear to be the most exposed in this regard: their cash reserves, which amount to just over two months of revenues on average, are well below those of large companies and mid-tier firms (cf. Table 2.2). These averages, however, conceal considerable disparities. Before the shock, 25% of companies were operating with cash amounting to less than two weeks of revenues.

The shock was cushioned by the partial unemployment scheme set up by the government²⁷ and by tax and social security debt moratoria (see Chart 2.4). In some cases, moratoria were extended to rents and even bank debt.

Table 2.2: business indicators for companies in the FIBEN database, by size category (2018)
(Revenue and value added in EUR billion, share of WCR and intercompany loans measured in days of revenues)

	revenues	value added	Share of operating WCR	Share of intercompany loans	Cash in days of revenues
Overall	3,397	910	16.7	2.5	96.8
SMEs	837	259	31.9	11.8	71.6
Mid-tier firms	1,127	284	26.1	5.7	91.1
Large companies	1,434	367	0.5	-5.6	115.9

Source: Banque de France

To meet their commitments, all sectors, especially those whose business has been hardest hit, are drawing on bank loans

While government schemes absorbed part of the cash shock, many companies also rebuilt their operating cash levels by increasing their debt, particularly by drawing on pre-existing and available credit lines or by taking out new cash loans, especially state-guaranteed loans (PGEs) for which the French government has earmarked an envelope of EUR 300 billion.²⁸ Large companies and mid-tier firms chiefly drew on credit lines, while the PGE scheme was used to guarantee applications for cash loans by SMEs and micro companies (of the EUR 100 billion provided in PGE loans, some EUR 76 billion went to SMEs or micro companies, Table 2.3).

Table 2.3: PGE beneficiaries by size category (outstanding amounts in EUR billion at 12 June)

	Number of beneficiaries		Amount loaned		Share of value added	Intensity of PGE uptake
	Number	Share	Amount	Share		
Large companies	11	0%	12.2	12.2%	32.9%	0.37
Mid-tier firms	853	0.2%	10.5	10.4%	26.9%	0.39
Small and mid-sized enterprises	25,469	5.1%	34.4	34.3%	23.7%	1.45
Micro companies	446,301	88.9%	41.4	41.4%	16.5%	2.51
Other	29,202	5.8%	1.7	1.7%		
Total	501,896	100.0%	100.1	100.0%	100.0%	

Source: Banque de France

Guide: uptake intensity is measured by dividing the sector's share of amounts loaned by the sector's share of value added.

Outstanding loans to all companies thus increased strongly, with year-on-year growth rising from 5.1% in February²⁹ to 9.3% in April, and expected to reach 11.5% in May according to provisional data. Security issuance has also risen considerably in parallel. Between March and May, this gross debt flow (EUR 143 billion increase) led to a roughly equivalent rise in the cash holdings of companies (EUR 130 billion increase in deposits).

The increase was driven in particular by large companies and mid-tier firms (annual growth of 13.5% and 3.8% respectively in April, compared with 3.1% growth and a 0.9% decrease respectively in February), which drew

²⁷ At 2 June 2020, over one million companies and more than 13 million employees had used the partial unemployment scheme, according to France's Labour Ministry (2020), "Situation sur le marché du travail au 18 mai 2020", DARES, May.

²⁸ A PGE loan can cover up to three months of revenues, roughly the period spanning the lockdown measures. Under the terms of the PGE scheme, 90% of the value of loans to SMEs and micro companies is guaranteed, compared with 70% and 80% for large companies and mid-tier companies.

²⁹ Banque de France (2020), "Loans by company size", Stat Info report, April.

heavily on the credit lines available to them.³⁰ The “major exposures” measure adopted by the HCSF in 2018³¹ has encouraged these companies to spread additional loans across multiple banks in order to limit potential concentration risks. Outstanding loans to SMEs increased by 9.1% year-on-year, compared with 5.8% in February, in step with the rapid run-up in PGE lending. According to the Banque de France’s survey of access to credit, demand for cash loans tripled among SMEs in the first quarter of 2020 relative to the previous period and doubled for micro companies, as reflected in the strong demand for PGE loans.³²

Leveraged finance under surveillance

The leveraged finance market segment is especially sensitive to financing conditions and investor risk appetite. This segment concerns highly indebted firms that have a debt-to-EBITDA³³ leverage ratio of over 4 and that take out loans. Leveraged buyouts (LBOs) are a typical example. Because of their debt, these companies are heavily exposed to a downturn in business conditions.

Loans to such firms are often securitised through collateralised loan obligations (CLOs). In such cases, the securitisation vehicle is highly sensitive to rating downgrades, which can have a cascade impact on investors in various tranches, from most risky to most defensive.

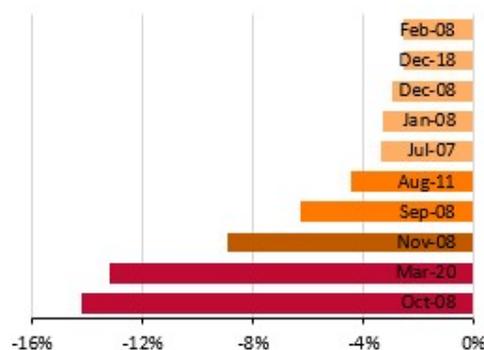
Leveraged loan and CLO issuance has plummeted since the onset of the crisis. Looking at cumulative data to end-May, CLO issuance was down 49% in the United States and 39% in Europe relative to the same period in 2019,³⁴ at USD 28.2 billion and EUR 7.7 billion respectively.

Leveraged loan credit spreads have increased substantially, causing the leveraged loan market index to record an annual decline of 14% in March 2020 (Chart 2.4). Prices have risen since the height of the crisis, with the fall contracting to 10% in April. The deterioration took a particularly severe toll on the leveraged finance sector, which is characterised by heavily indebted companies that are highly exposed to a downturn in business conditions. While the market remains modestly sized in Europe compared with the US market, it acts as an early warning system for credit market stress.

The market is closely watched by credit rating agencies, which issued negative watch/negative outlooks or rating downgrades. These affected leveraged loans, but also CLOs (especially the lowest rated tranches), which are backed by leveraged loans. As the credit quality of leveraged loans deteriorated, many European CLOs were put on watch in May for potential rating downgrades. Developments on the high-yield credit market in the coming months will naturally have a decisive impact on the future path of ratings.

The ability of investors facing asset impairment to hold off on selling these assets (as well as potentially, through contagion effects, a broader spectrum of risky debt such as BBB-rated assets) based on their financial and regulatory constraints will be decisive in the months ahead, with initial observations in March 2020 already showing signs of a flight to safety.

Chart 2.4: The fall in the leveraged loan index for the month of March 2020 was almost as large as the decline recorded in October 2008
x: change (%) / y: month



Sources: Bloomberg, S&P/LSTA Leveraged Loan Index (data as at 31 May 2020)

30 Banque de France (2020), “Loans by company size”, Stat Info report, March.

31 See Decision No. D-HCSF-2018-2 of 11 May 2018 on the major exposures of systemically important institutions, adopted on the basis of CRR Article 458.

32 Banque de France (2020), “Company access to credit”, Stat Info report, Q1 2020.

33 EBITDA: Earnings Before Interest, Taxes, Depreciation and Amortisation.

34 Source: S&P LCD, Barclays, CLO & Leveraged Loan Monthly Update May 2020.

Strengthen capital to maintain companies' solvency

The twin effects of an increase in debt resulting from use of cash loans to offset lost business cash flow together with a sharp decline in earnings affecting capital accumulation have weakened corporate funding structures and could threaten firms' long-term viability. While the emergency measures introduced are helping to limit the immediate threat associated with this liquidity shock, they cannot mitigate the risk of default linked to reduced corporate solvency. The risk looks to be more acute in sectors where companies simultaneously (i) operate with low levels of profitability (interest coverage ratio of less than one), (ii) had a high level of debt before the crisis (leverage ratio of over 100%) and (iii) are likely to experience a slow recovery in business or operate in a sector that is likely to see prolonged excess capacity in the post-crisis period.

Measures to bolster balance sheets (through equity or quasi-equity contributions) are therefore worthwhile, at the risk of hampering the ability of viable companies to repay accumulated debt and invest. Whatever methods are used to strengthen balance sheets, two main challenges must be met to ensure the effectiveness of these interventions and control their cost to the public finances:

- The need for selectiveness in equity contributions to concentrate these interventions on viable companies in order to maximise the economic benefits – from this perspective, the private sector, with its ability to select risks, needs to be involved through skin-in-the-game incentives, which give creditors a stake in the success of the recoveries and minimise adverse selection;
- Risk needs to be shared fairly between private investors and public authorities, and the public finances should be fairly remunerated for the risk borne.

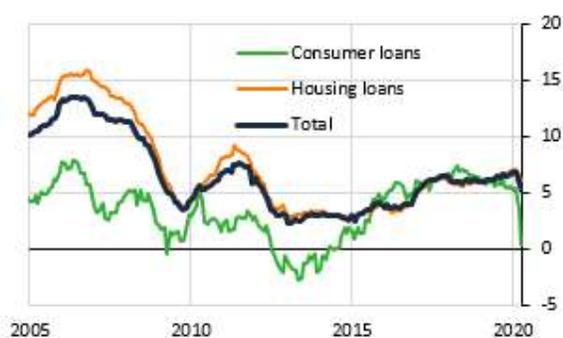
In addition, a concern for sustainable viability, e.g. with regard to climate change issues, is critical to a successful rebound, while effective collective restructuring and liquidation procedures will be vital to ensure that clearly compromised situations are dealt with swiftly and effectively.

Controlling the debt-service-to-income ratio in the face of the household income shock

Developments in household property debt

Chart 2.5: Growth rate of lending to individuals

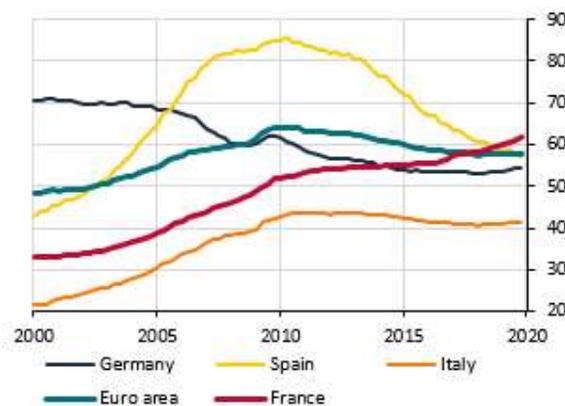
X: year / y: %



Source: Banque de France

Chart 2.6: Ratio of household debt to GDP*

x: year / y: %



Source: Banque de France

The bank debt of resident households amounted to EUR 1,305 billion in April 2020, including EUR 1,088 billion in housing loans (83%). The growth of household debt accelerated sharply from 2015, sustained by a decline in lending rates and firming economic conditions. Since the start of 2015, households' outstanding debt has increased by 28%. This trend is perceptible not just in home loans (growth rate of around 6% to 7% per year since 2017) but also in consumer loans (Chart 2.5).

From March 2020, the lockdown caused a sharp deceleration in new lending, particularly in consumer loans. Home loans have been less affected so far because loan application procedures are lengthier, causing a certain amount of inertia. The reasons linked to the lockdown are obvious: property visits and search activities have been suspended, signatures have been delayed, loan offers are taking longer, and so on.

Overall, the debt ratio of French households has risen steadily over the last 20 years, reaching 61.6% of GDP in the fourth quarter of 2019 (Chart 2.6). Unlike most other European countries, France did not see a period of decline after the 2008 financial crisis. As a result, the debt of French households as a ratio of GDP has exceeded the euro area average since 2017 (57.9% of GDP).

Faced with easing credit standards for housing loans, the HCSF, which is chaired by the Minister for the Economy and Finances and which includes the governor of the Banque de France, issued a recommendation³⁵ last December on credit standards for housing loans. **In its recommendation, the HCSF reminded banks and households to apply common sense rules to prevent the risks of overindebtedness: in most cases, the loan repayment burden should not exceed one-third of a borrower's income and should be spread over a reasonable period, preferably not exceeding 25 years.** The recommendation seems especially timely in the current environment, as the recession is already impacting household employment and income.

The recession will have a severe impact on the public accounts and push up debt

The health crisis has spurred France, like most other countries, to implement major fiscal measures to cushion the health and economic impact of the COVID-19 pandemic and promote a subsequent economic recovery. The sharp slowdown in activity in 2020, coupled with these exceptional support measures, will lead to a severe deterioration in the public finances in 2020. The general government budget balance is thus expected to deteriorate considerably in 2020 to reach a deficit of 10% of GDP. However, it is expected to recover thereafter as exceptional support measures are lifted and more vigorous economic activity returns. As a result, the debt level should stabilise (or even decline slightly) next year, but will remain higher than the pre-crisis level by some 20pp of GDP.

According to the Banque de France's June 2020 forecasts,³⁶ French government debt will stand at 119% of GDP in 2020 after 98.1% in 2019, an increase of 21 points of GDP, and is expected to be at 118% of GDP in 2022. The situation in France is fairly similar to that of other leading economies. According to the European Commission's May 2020 forecasts, German government debt is expected to increase by 16 points to 75.6% of GDP in 2020. In the euro area as a whole, government debt is expected to increase by 17 points to 101% of GDP in 2020 before edging down to 100% of GDP in 2022. Similarly, the United Kingdom's government debt will rise by 17 points to 102.1% of GDP in 2020 and then 101.5% of GDP in 2021, according to the European Commission's forecast. The deterioration in Europe's public finances is mirrored in other advanced economies: Japan will see its government debt increase by a comparable degree (about 18 points of GDP in 2020), while the US government debt ratio is set to rise by 25 points of GDP.

This major increase in debt raises questions about the sustainability of public debt and the risks surrounding its trajectory. The sustainability of government debt depends primarily on two factors: the difference between the nominal interest rate and the nominal growth rate ($r-g$), which determines the "snowball effect", and the change in the primary balance. Where $r-g$ is negative, i.e. nominal growth is higher in the medium term than the nominal interest rate paid on government debt, the snowball effect, which corresponds to the spontaneous trajectory of the government debt ratio excluding new deficits, remains favourable and allows the debt ratio to decrease. When $r=g$, and the primary balance is in equilibrium, government debt stabilises.

Accordingly, in the current setting, even a large increase in the level of government debt, provided it is temporary, will not affect the future debt trajectory under the central scenario. The French public finances should also continue to benefit, at least in the short and medium term, in an environment where low inflation is forecast,

35 Recommendation No. R-HCSF-2019-1 of 20 December 2019

36 Source: <https://www.banque-france.fr/economie/projections-macroeconomiques-france>

from low interest rates, which should favourably impact the debt trajectory. As long as g remains above r , government debt can be stabilised. However, this goal remains dependent on a return to a sufficiently high primary balance³⁷ following its sharp deterioration due to the recession.

Looking ahead, a reduction in government debt will depend primarily on the effect of measures to support potential growth in response to the economic consequences of the health crisis, rather than on the short-term cyclical trajectory of the public finances. It will likewise depend on the structural fiscal adjustment required to obtain a primary balance compatible with a sustainable decrease in debt together with, if possible, the return to a position close to equilibrium.

A sustainable decline in government debt relative to GDP is a key objective, as an increase in the government debt ratio reduces the fiscal room for manoeuvre in the event of a macroeconomic shock or an increase in interest rates that pushes up the cost of debt, even if such a risk looks small in the current situation.

At the level of the euro area, efforts by the Eurosystem have reduced the share of debt held by residents and non-residents since 2014. The share of French central government debt held by non-residents (Chart 2.10) has remained stable at just over 50% of outstanding amounts in recent years, following a slight decline linked to the ECB's securities purchase programmes. This level, one of the highest in Europe, reflects the debt's attractiveness. However, a high level of debt ownership by non-residents has potential implications for financial stability because it is more volatile: if there is a change in behaviour by foreign investors, resident investors need to be in a position to absorb non-residents' withdrawals, as in the sovereign crisis of 2012. Furthermore, the debt's average maturity (Chart 2.7) has stayed relatively constant over time at between seven and eight years, reducing refinancing risks in the event of a rise in interest rates.

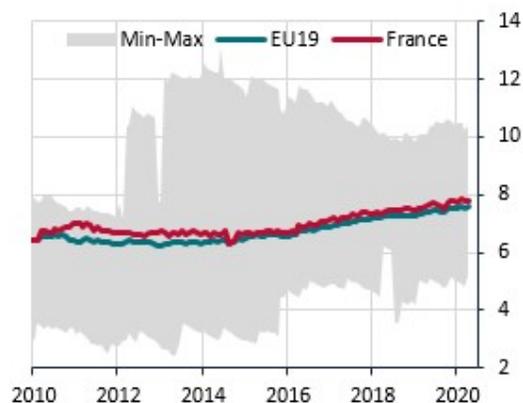
The suspension of EU fiscal discipline rules has temporarily increased the room for fiscal manoeuvre, despite the fact that the starting position was already compromised according to historical criteria. When the macroeconomic shock hit, however, some euro area countries were in a more favourable fiscal situation, giving them additional room for fiscal manoeuvre to provide economic stimulus.

The combination of a massive intervention by the ESCB, with a securities purchase programme that was increased on 4 June to EUR 1,350 billion, and the European Commission's recovery plan, initially worth EUR 750 billion, has introduced protection and solidarity mechanisms that will help to finance the economic recovery and avoid a repeat of the euro sovereign debt crisis.

Box 5: Comparison of government debt trends in the euro area

According to European Commission forecasts published last May, the scale of the crisis will lead to a very substantial increase in euro area government debt, which is set to rise by around 17 points in 2020 to 102.7% of GDP, before easing back to 98.8% in 2021 owing to the effects of the economic recovery. Faced with the urgent issues at hand, **the European Commission has suspended the Stability and Growth Pact, which, in accordance with the treaties, reflects the mutual commitment made by the countries that have adopted the euro, including a ceiling of 60% of GDP for government debt.**

Chart 2.7: Average maturity of government debt in the euro area and France
x: year / y: number of years



Source: ECB

Note: the minimum to maximum (Min-Max) band shows the spread of average maturities of government debt of euro area countries.
Most recent value: end-April 2020

³⁷ The primary balance is the general government balance excluding interest charges on government debt.

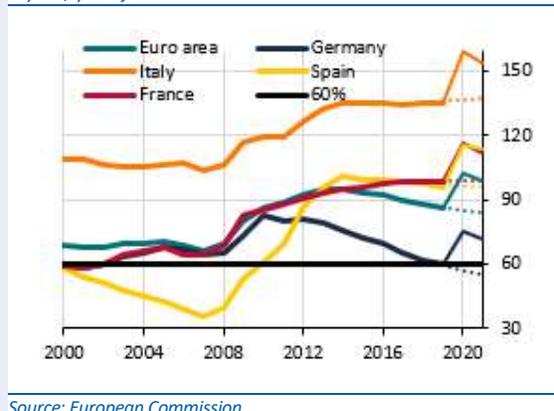
In the case of France, the Commission has said that government debt may rise to 116.5% of GDP by the end of 2020, before falling to 111.9% in 2021. When the single currency was created, French government debt was close to the required level of 60% of GDP, as it was in Germany and Spain.

Some euro area countries have managed to lower their debt in the past:

- Germany, whose government debt climbed by 18 points between 2007 and 2010 (from 64% to 82%) managed to get it back below 60% in 2019, i.e. a lower level than in 2007.
- Spain recorded an increase in the aftermath of the 2008 financial crisis, with debt mushrooming from 35% of GDP in 2007 to 100% in 2014. Sustained growth thereafter allowed the country to lower its debt gradually to 95% of GDP in 2019.

Chart 2.8: Government debt

X: year / y: % of GDP

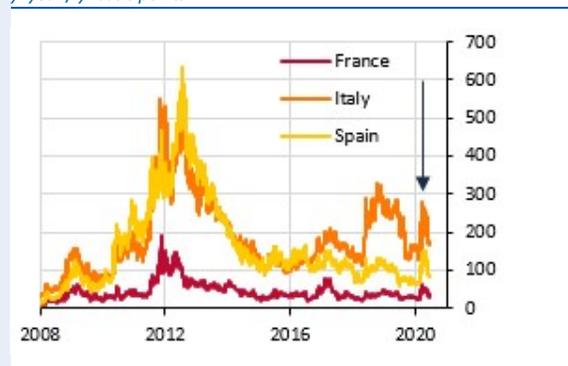


Source: European Commission

After a major economic shock, it is in the interest of affected countries to bring the GDP share of debt back down in order to be able to cope with future macroeconomic shocks, whatever the cause. High debt weakens the financial position of a country, making it highly dependent on external financing when the current account balance is in deficit, as is the case in France. It also leaves the country more exposed to an increase in the interest rates at which it borrows, which pushes up debt service costs.

Chart 2.9: Spread of sovereign bond yields over Germany

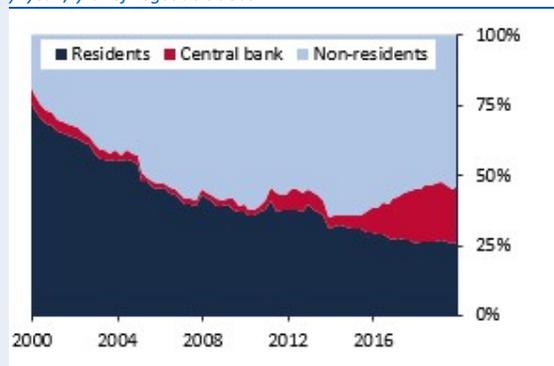
y: year / y: basis points



Source: Bloomberg

Chart 2.10: Ownership of French (central) government debt by non-residents

y: year / y: % of negotiable debt



Source: AFT

Most recent value end-2019

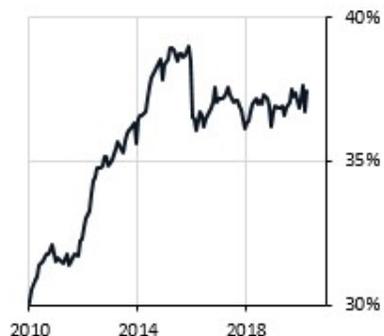
2.2 Limited resilience of market financing

The market financing of non-financial corporations (NFCs) has increased in France in the last decade, rising from 30% of total outstanding debt in 2009 to 37% at the end of April 2020³⁸ (Chart 2.11). This increase can be attributed to a surge in non-bank financing rather than to a decrease in bank debt (Chart 2.12). The trend has been particularly driven by large companies, whose non-bank financing had risen on average to more than 88% of total balance sheet debt by end-2019 (Chart 2.14, for the SBF 120).

³⁸ Source: <https://www.banque-france.fr/statistiques/credit/debt-et-titres/financement-des-snf>

Chart 2.11: Share of non-bank financing (% total NFC debt)

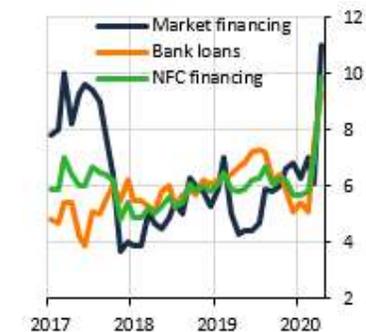
x: year / y: %



Sources: Banque de France Webstat.
Most recent value: April 2020.

Chart 2.12: Annual growth per type of financing (%)

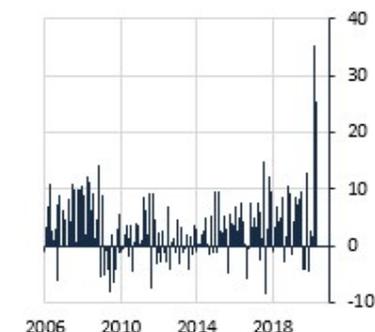
x: year / y: % growth



Sources: Banque de France - Stat Info report: <https://www.banque-france.fr/statistiques/credit/debt-et-titres/financement-des-snf>

Chart 2.13: Credit flows to French NFCs

x: year / y: EUR billion



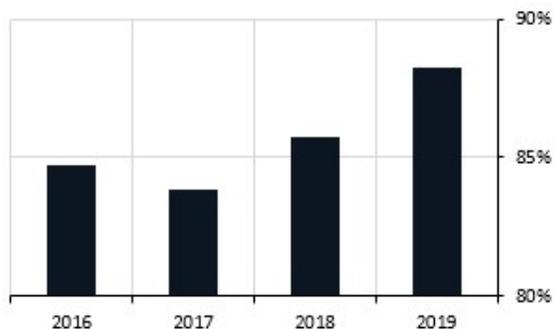
Sources: Banque de France Webstat. Most recent value: April 2020.
Note: The chart tracks flows of new loans net of repayments of past loans.

Market financing has grown (Chart 2.12) particularly because it offers flexibility (different levels of seniority for debt issues, fixed or variable interest rates, more straightforward to issue over longer horizons) as well as lower costs than bank loans (Chart 2.15). Furthermore, access to market financing provides companies with alternative liquidity to bank loans. However, this liquidity has a cost, especially during times of stress, as during the Covid-19 crisis. Access to market resources can dry up or become more expensive when economic or financial uncertainties prompt investors to require higher rewards in return for risk.

In a setting of prolonged low interest rates, the rise in market financing has been accompanied by a downturn in the average credit rating of NFC debt. The share of bonds rated BBB (the lowest rating) within the investment grade segment has increased considerably in the last five years, reaching 33% in France at end-2019, while still remaining below levels in the United States (45%) or Italy (70%). NFC downgrades sometimes result from downgrades of their respective sovereigns.

Chart 2.14: Non-bank debt on the balance sheets of large companies

x: year / y: % of total debt



Source: Banque de France

Chart 2.15: Market financing has been cheaper than bank credit on average

x: year / y: %



Source: Banque de France statistics on NFC financing. Most recent value: April 2020

Since the start of the health crisis, NFCs and especially the lowest rated firms (BBB and HY) have struggled to issue debt. Commercial paper and bond markets shut down temporarily and financing conditions deteriorated, with

credit spreads for BBB issuers widening by 180 basis points in Europe between end-February and end-March 2020 from 100 to 280 basis points before subsequently easing to around 160 basis points.³⁹

During periods of heightened financial stress, market financing may vanish quickly, forcing monetary authorities to intervene to stabilise the conditions under which financing is provided to the economy. This situation also highlights the complementary relationship that exists between market financing and bank financing, because as soon as the first signs of the crisis emerged, companies with the ability to do so drew massively on credit lines that they had previously negotiated with their banks.

Assuming there is no additional stress, the debt burden of NFCs is not expected to increase in 2020 because interest rates at issuance for the BBB segment (1.8% on average in Europe) remain below the average rates on maturing debts (3.8% in Europe). Note however that BBB-rated NFCs have substantial refinancing requirements, equal to 30% of outstandings (i.e. EUR 900 billion) over the 2020 to 2022 period. Risks could arise if issuers become fallen angels by being downgraded from investment to speculative grade.

³⁹ Source: S&P BBB Invest Grade Corporate Bond index

3. Short-term risks

3.1 Risks associated with a slow recovery

Risks to the financial system

Rising cost of risk at banks

Monetary and prudential measures covering banks have been decisive in eliminating refinancing risk for banks.

Tensions started to appear in late February as primary bond markets seized up and yields at issue increased (+200 basis points between the end of February and the end of March for bonds issued by banks), prompting banks to make massive use of central bank refinancing. Eurosystem EUR refinancing operations increased by around EUR 500 billion (at 4 June 2020).

Demand for 3M and 3Y LTROs carried out on 25 March 2020 amounted to EUR 194 billion; under the 3Y TLTRO carried out on 18 June, EUR 1,308 billion was allotted to 742 institutions in the euro area, for an injection of EUR 545 billion net of repayments. At the same time, institutions did not appear to use their liquidity reserves, seemingly out of fear of scaring off investors. As a result, by end-March, the short-term liquidity ratios (LCR) of the four main French banking groups had increased further from the solid levels reached at end-2019 (cf. Table 3.1).

The groups said that they took advantage of favourable conditions in the early part of the year to execute much of their medium-term refinancing programmes for FY2020, with completion rates already at between 42% and 69% by mid-April. Furthermore, the increase in refinancing rates on the interbank, short-term primary and senior and covered bond markets remained contained and short-lived.

Table 3.1 : Liquidity coverage ratios of the four main French banking groups

LCR*	BNPP	GCA	SG	BCPE
December 2019	125%	135%	124%	>110%
March 2020	130%	142%	141%	138%

Source: financial reporting

* ratio calculated as a month-end average by BPCE and GCA

The second short-term risk, which materialised in March, concerns the market activities of banking groups and is directly related to the severe turbulence that hit financial markets, with tumbling valuations across equity markets, a record increase in volatility and widening credit spreads. Based on results published at end-March, all groups reported a striking contrast between performances in the two main business areas.

Fixed income, currencies and commodities (FICC) businesses enjoyed record performances (32% up on the first quarter of 2019) while equity and equity derivatives businesses sustained substantial losses, leading to sharp declines in quarterly earnings. At the same time, risk-weighted assets increased by around 36% at BNPP and SG, according to their financial reports.

Furthermore, with the decline in borrower solvency, credit risk will probably depress banks' accounting and prudential indicators in the short and medium term:

- First, the cost of risk is expected to go up in 2020, particularly in the most sensitive sectors, as will the share of non-performing loans, whereas these indicators were at low levels in 2019.⁴⁰ **At end-March, the cost of risk stood at EUR 3.7 billion, i.e. a 129% increase for the four main French banking groups** (+69% in retail banking and specialised financial services and x11.4 for corporate and investment banking - CIB), although this growth needs to be set in the context of the historically low levels recorded during previous periods; the increase reflects the effect of adjustments to risk provisions for performing loans owing to the deterioration in macroeconomic prospects caused by the Covid-19 crisis, as well defaults in CIB on energy and oil sector

40 Analyses & Synthèses report on the situation of French banks in 2019, <https://acpr.banque-france.fr/liste-chronologique/analyses-et-syntheses>

exposures and the resurgence of counterparty risk. The increase in the cost of risk ultimately has an adverse impact on pre-tax earnings.

- In parallel, owing to the increase in business financing requirements during the confinement period, use of approved credit lines and the granting of new loans will lead automatically to an increase in balance sheet assets and risk-weighted assets in this segment. Note also that assuming constant levels of exposure, a deterioration in the financial situation of companies may also lead to an increase in the related risk-weighted assets for banks using internal models. Thus, at the end of the first quarter of 2020, between the increase in volumes and the initial deterioration in the quality of exposures, the risk-weighted assets of the four main French banking groups climbed by around 3%.
- In terms of the financial performances of the four main French banking groups at end-March 2020, aggregate net banking income was down slightly (by 5%, to EUR 30 billion) compared with March 2019, since activity did not feel the impact of the crisis until the end of the quarter. Net income fell by around 50% to EUR 2.4 billion, owing to the increased cost of risk and despite a 1% reduction in management expenses. In three months, annualised RoE declined in France (-3.9 percentage points) and in the United States (-5.5 pp). In Europe outside France, the partial recovery is due to the low point reached in late 2019 by German banks (Chart 3.1 on the right).
- Regarding the change in the CET1 solvency ratio at end-March 2020 (Chart 3.1 on the left), the measures described in part 1.2.2 made it possible to absorb the initial effects of the crisis by restricting their downside impact on the ratio to 26 basis points for French banks (compared with 28 basis points for the main non-French European banks and 72 basis points for the main US banks). Leverage ratios, which have fallen slightly, remain above regulatory requirements.

Chart 3.1: International comparisons⁴¹ between Dec. 2019 and March 2020: CET1 ratio and RoE
x: categories / y: %



Sources: Financial and regulatory reporting, ACPR calculations

Responding to lockdown measures, banks activated business continuity plans, which allowed them to do a satisfactory job of maintaining operational continuity in their provision of financing services to the economy and especially to companies.

Expected effects of a prolonged low interest rate environment for banks and insurers

A prolonged low interest rate environment automatically compresses the net interest margin (NIM) of French banks.

If rates remain at the low levels observed at end-2019, the run-off of outstanding loans agreed earlier at higher rates will continue to depress banks' average return on assets. Conversely, banks will be able to refinance at more favourable rates, notably via Banque de France refinancing operations. The crisis has also led to an increase in

41 FR banks: BNPP, SG, GCA, BPCE. Other European banks: BBVA, Santander, Unicredit, Intesa SanPaolo, Deutsche Bank, ING, Nordea, Crédit Suisse, UBS, Barclays, Lloyds Banking Group, RBS, Standard Chartered, HSBC. US banks: BoA, Citi, Goldman Sachs, JP Morgan, State Street, Wells Fargo.

bank deposits, reflecting both precautionary savings and reduced consumer spending during the lockdown. These countervailing trends could however be mitigated depending on the macro-hedging strategies adopted by individual institutions to manage interest rate risk.

The impact of a prolonged low interest rate environment on insurers

The longer insurers are exposed to low interest rates, the greater the constraints placed upon them. The financial returns that they currently earn on their assets allow them to continue to pay competitive levels of remuneration in a low interest rate environment, while at the same time allocating funds to the profit-sharing reserves (PSRs) that they use to smooth the returns paid to retail savers over time. However, these financial returns are trending downwards.

Note that while the recessionary environment suggests that rates will remain low, in the opposite scenario of an upward interest rate shock, insurers could lack room to manoeuvre to offer sufficiently attractive returns on new contracts, leaving them vulnerable.

The decline in financial income caused by the decrease in income on fixed income assets is having a big impact on life insurers' earnings. The average return on assets (RoA) fell from 3.5% to 2.5% between 2013 and 2019.

Chart 3.2: Revaluation rates began falling again in 2019 after flattening out in 2018...

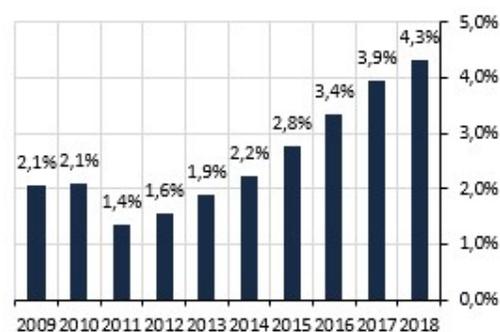
x: year / y: revaluation rate as a %



Source: ACPR

Chart 3.3: ... while allocations to profit-sharing reserves went up

x: year / y: allocation to PSR as a %



Source: ACPR

Applying the strong assumption of a reinvestment of maturing bonds in zero-rate bonds, and zero net inflows on euro-denominated instruments, this decline in ROA could continue at a rate of approximately 25 basis points per year for the next five years.

The abovementioned decline in ROA is offset by various measures with regard to insurers' euro-denominated liabilities. The first measure is the decrease in revaluation rates attributed each year to policyholders on their euro-denominated products. This applies to the return on contracts invested in euro funds, which plays a major role in competition between insurers.

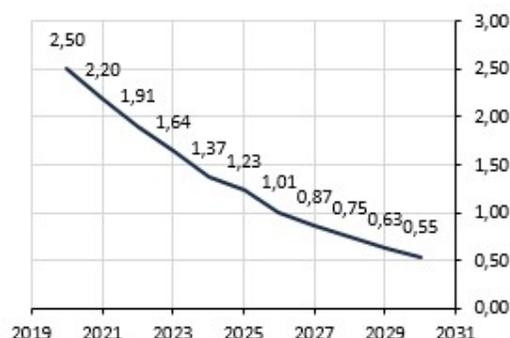
In 2019, these rates fell significantly, after staying more or less the same in 2017-2018 (Chart 3.2). They decreased by around 0.40% with the average revaluation rate on individual savings and retirement contracts falling to close to 1.4% in respect of 2019.

The decline was accompanied by an increase in profit-sharing reserves (PSRs), which allow life insurers to smooth profit-sharing payments to policyholders via the revaluation of contracts (Chart 3.3). Total PSRs are now equivalent to between two and three full years of revaluation.

However, drawing on these reserves cannot shield life insurers indefinitely against a scenario involving a sharp rise in interest rates in the medium term. Simulating an increase in French sovereign yields of 300 basis points over a four-year horizon, insurers could adjust their euro-denominated contracts to the new market rate for just three years. The longer insurers are exposed to low interest rates, the less able they will be to keep pace with a future increase in interest rates: if the increase in sovereign yields mentioned above were to arrive in one year instead of over four years, reserves would be depleted within five years (Chart 3.5).

Chart 3.4: ROA is declining in the current financial conditions

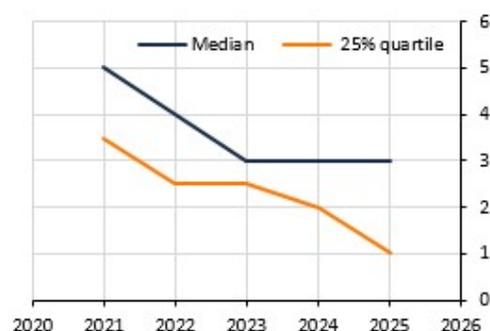
x: year / y: %



Sources: Prudential reporting to the ACPR, Banque de France calculations.
Note: Average annual ROA projected for a scope comprising 90% of the life insurance market in EUR.

Chart 3.5: estimated number of years after which the ability to absorb upside interest rate shocks through PSRs would become zero

x: year / y: number of years



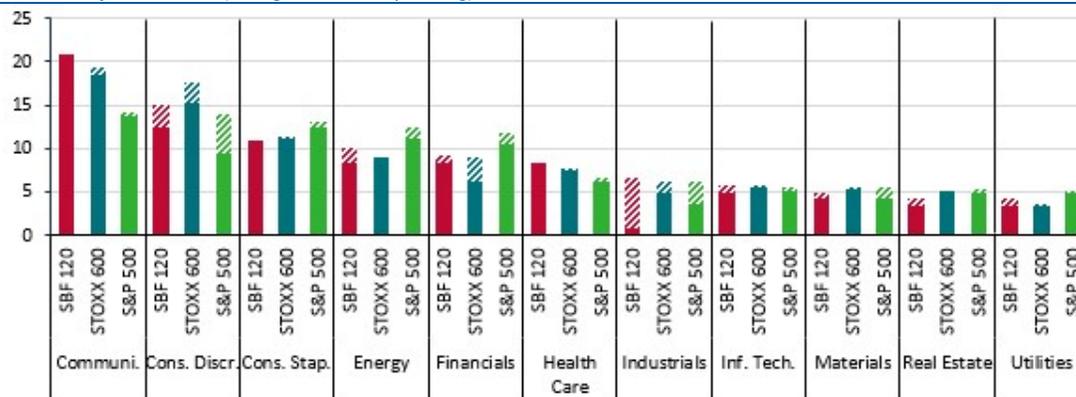
Sources: Prudential reporting to the ACPR, Banque de France calculations.
Notes: The x-axis represents the horizon of an upward interest rate shock, e.g. 300 basis points. The y-axis shows the number of years it will take for a life insurer to deplete its PSR. PSR liquidation was calibrated to limit the risk of redemption by policyholders by adjusting the rate paid to maintain the contract's attractiveness.

3.2 An increase in difficulties resulting from procyclical factors

The role of rating agencies

Chart 3.6: Proportion of rating downgrades in different benchmark indices (21/02/2020 – 14/04/2020). Scope: SBF 120, STOXX 600 and S&P 500 indices, three main credit rating agencies

X: Index / Y: Share of sectors as a % (downgrades shown by shading)



Sources: Bloomberg, S&P, Moody's, Fitch.

Notes: The shaded areas show the proportion of companies in each index that were downgraded during the period from 21/02/2020 to 14/04/2020, by sector. Each company in the index is counted just once, no matter how many successive downgrades it has received or how many agencies have reviewed its rating. For the purposes of this chart, the Euro Stoxx 600 index does not include companies that belong to the SBF 120.

Downgrades are affecting all developed countries and every sector of activity. Whereas in previous crises, rating and outlook downgrades primarily concerned the financial sector,⁴² at this stage they are mainly concentrated on

⁴² A methodology similar to that of Chart 3.7 shows that the proportion of financial corporations in downgraded companies over the three periods is as follows: 30%, 50%, 65%. Conversely, no French financial corporation was downgraded between 01/01/2020 and 01/04/2020

companies directly impacted by the Covid-19 crisis, with the financial sector being affected through increased credit risk and the impact on future profitability. The energy, consumer discretionary and industry sectors in particular have seen downgrades owing to the greater impact of lockdown measures in these sectors. Chart 3.6 compares downgrades of SBF 120 companies to foreign indices. As the chart shows, no region has been spared, and the number of downgrades for the French equity index is about halfway between the numbers for the Euro Stoxx and S&P 500 indices.

Company ratings have been downgraded at a sustained pace since the outbreak of the Covid-19 crisis. Chart 3.7 compares the timelines of downgrades in France at the start of various crisis periods, namely the financial crisis of 2008, the euro area debt crisis of 2012 and the health crisis of 2020. The current pace of downgrades exceeds that of previous periods, except for the start of the euro area debt crisis of 2012. The revisions during that period are attributable to the downgrade of France's sovereign rating, which impacted the ratings of French companies.⁴³ France's sovereign rating has not yet been downgraded during the current period. While the sovereign rating remains unchanged, the recent crisis has featured a historically significant number of downgrades, due to the scale of the current crisis and its exceptionally acute impact on non-financial corporations.

These downgrades could become problematic if they create a significant number of fallen angels, i.e. companies that are downgraded from investment grade (BBB- rating or higher) to high yield (BB+ or lower). Over recent years, the average rating of issuers has fallen, with a large increase in the BBB segment, which is the lowest rating for investment grade (IG) bonds.

The trend reflects broader access by European companies to the bond market but also a deterioration in issuers' financial structures. Crisis periods are especially conducive to an acceleration of downgrades from investment grade to high yield, as shown by Chart 3.8.

Loss of BBB rating is more damaging today owing to the development of market financing, passive investing and automatic management rules that exclude non-IG securities from their investment universe. Some market participants may thus be led to liquidate positions (sometimes in advance) in order to comply with statutory or internal rules.

If these asset liquidations occur suddenly and on a massive scale, they could have a procyclical impact on companies' financial positions, exacerbating funding problems and, by extension, default risks linked either to funding difficulties or to a structural deterioration in solvency.

The public authorities have already adopted measures to mitigate the automatic effects of downgrades. To ensure that the Eurosystem's monetary policy decisions play their role to the full throughout the Covid-19 crisis, the Governing Council decided that, beginning 7 April 2020, a grandfathering clause would apply to ratings in the event that rating agencies significantly downgrade the ratings of assets that are eligible for asset purchase programmes or as collateral for refinancing operations. Accordingly, any marketable assets eligible at that date,

⁴³ A company cannot have a better rating than its sovereign.

Chart 3.7: Number of downgrades of French issuers starting from the beginning of each crisis. Scope: Three main credit rating agencies
X: months / Y: Number of downgrades

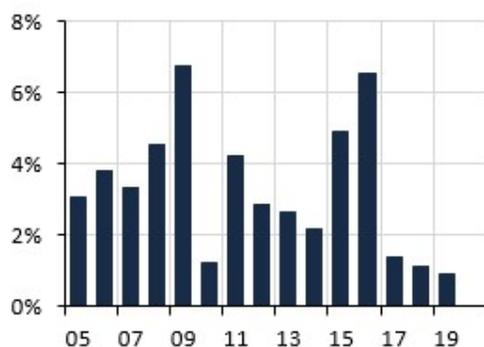


Sources: Bloomberg, S&P, Moody's, Fitch

Notes: In this exercise, a company whose rating is downgraded and subsequently upgraded has a negative and then a positive effect on the curve. France's sovereign rating was downgraded in January 2012 and July 2013. Scope: all French companies rated by one of the three credit rating agencies. An aggregate rating is obtained by averaging the ratings from the three agencies and used in this chart. Note that the number of companies monitored by the agencies increases over time. The periods selected correspond to intervals of time featuring weak growth as well as a high number of downgrades. Most recent value: 01/04/2020.

meaning that they must be rated above BBB- (or equivalent), will remain eligible until September 2021 even if they are subsequently downgraded, provided the rating does not fall below BB+ (or equivalent).⁴⁴ This decision, which supported the valuation of European credit markets as soon as it was announced, prevents the threat of a sudden shock to companies' refinancing costs or to liquidity access in the event of a downgrade. In the United States, the Fed has committed to investing in HY ETFs.

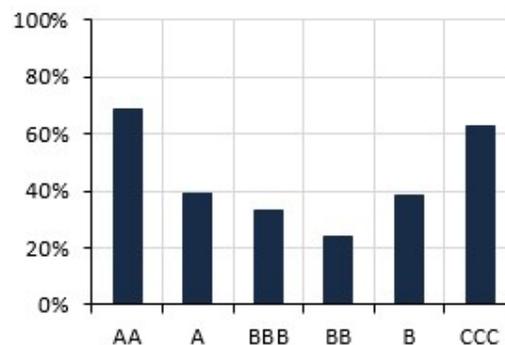
Chart 3.8: Percentage of companies falling from BBB to HY, per year
x: year / y: %



Sources: Moody's, ESMA.

Note: Global scope, NFCs. Only Moody's is represented here.

Chart 3.9: Proportion of French NFCs with at least one negative outlook
x: Rating / y: Proportion of NFCs with at least one negative outlook



Sources: Bloomberg, S&P, Moody's, Fitch, Banque de France calculations

Note: Ratings are the average for the three main credit rating agencies.

The bars show the proportion of companies that have been assigned a negative outlook by at least one credit rating agency. Scope: French NFCs.

The ECB's measures have been accompanied by recent announcements by ESMA, the authority in charge of supervising credit rating agencies since 2011, which reminded agencies of the need to avoid responding automatically and thus potentially procyclically, and instead take a vision embracing the entire business cycle.

Analyses are under way in European (ESRB) and international bodies on potential avenues of reform to prevent the procyclical effects of downgrades. While significant changes were already made in the aftermath of the 2008 financial crisis to regulate the activity of credit rating agencies, the current crisis and the procyclical effects associated with the use of credit ratings show the need to supplement the framework. For example, the methodologies used could be supervised more closely. Above all, steps could be taken to reduce issuers' and investors' reliance on external ratings, and even reduce concentration in a market that continues to operate in an oligopolistic manner.

Risks of over-reaction and contagion in non-bank intermediation

Outflows from money market funds and strain on the primary and secondary money market

In France, total assets under management came to EUR 1,665 billion at the end of January 2020 (including all money market and non-money market mutual funds) and EUR 1,470 billion at the end of March 2020 (source: ECB and Banque de France). The EUR 195 billion decline in two months, a 12% decrease from the initial total, was largely due to valuation effects in the equity segment (EUR 68 billion decrease, 20% of the total in this segment), the balanced segment (EUR 36 billion decline, or 10%) and the bond segment (EUR 16 billion decline, or 5%). In addition, the money market segment sustained net outflows of EUR 52 billion (15% of total assets in the segment) in March 2020.

The emergence of uncertainties about economic stability due to the Covid-19 crisis prompted major flows back into money market assets. At the global level, flows were directed massively towards US money market funds

⁴⁴ https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200422_1~95e0f62a2b.en.html

(MMFs) whose strategy is to hold only US sovereign debt (Chart 3.10). In France, French MMFs recorded outflows that were concentrated on standard MMFs (Chart 3.11), while short-term MMFs saw inflows over the same period.⁴⁵ These short-term funds differ from standard MMFs by having lower exposure to interest-rate and credit risk. These countervailing trends formed part of a general flight to liquidity driven by two sets of behaviour: cash-strapped investors sold MMFs, while others switched between standard and short-term MMFs to lower their risk profile and asset volatility.

Chart 3.10: Since March 2020, there has been a relatively pronounced flight to safety, with substantial flows into money market funds
x: month / y: flows in USD billion to passive and active funds in each asset class (scope: world)



Sources: EPFR Global, Banque de France calculations

Chart 3.11: French money market funds saw outflows, but with discrimination between two levels of MMF risk
x: month / y: cumulative flows in USD billion into funds domiciled in France



Sources: EPFR Global, Banque de France calculations

These switches coincided with the period when the commercial paper market seized up. It seems that managers did not roll over their investments on maturing securities of non-financial corporations, which may have worsened the freeze on the CP market, and the Eurosystem stepped in as buyer in the end. This episode highlighted the tension that exists between individually reasonable actions and their collectively sub-optimal consequences: through cautious management of their own individual liquidity positions, some investors and/or management funds created problems at the global level, including liquidity stress for banks and non-financial corporations. While the Eurosystem's intervention on this market segment made it possible to restart the funding of financial corporations through these securities, the effects of such a response need to be assessed to avoid fuelling moral hazard. In this regard, the Banque de France and the AMF are conducting joint work to ensure that mutual funds have well-functioning liquidity management tools.

At the same time, the Banque de France is doubling down on its commitment to develop a solid and stable financial system by using its analyses of financial interconnectedness to think about an enhanced macroprudential framework for all affected institutions, with a focus on liquidity and procyclicality issues.

Box 5: Highlighting over-reaction effects on ETFs

Worldwide, the amount of assets invested in ETFs has increased swiftly since the financial crisis of 2008, rising from USD 800 billion in 2007 to USD 5,000 billion in mid-2019. In Europe, inflows exceeded EUR 100 billion in 2019 with total outstandings reaching close to EUR 1,000 billion at end-2019. In France, the ETF market grew by 40% last year, propelled by rising markets and strong inflows, with investors showing increasing interest in bond ETFs. The illiquidity on bond markets observed in March affected ETFs, causing a gap to open up as the market prices of fund units fell temporarily below net asset value (NAV).

⁴⁵ Since the adoption of European Regulation 2017/1131 (MMF), MMFs have been classified into two categories: short-term money market funds and standard money market funds, with the former offering a lower risk profile than the latter. The two categories are subject to different weighted average life and weighted average maturity requirements, and apply different NAV rules (constant NAV - CNAV, low-volatility NAV - LVNAV or variable NAV - VNAV).

The gap reflected illiquidity on the underlying bond market, as the ETFs continued to be traded even though trading had halted in the underlying instruments. The differential, which widened to as much as 6% during times of severe market stress (Chart 3.12), was due to the lack of benchmark prices for the underlying assets. Accordingly, continuously traded ETF units played the role of price guide for the underlying securities, whose prices ultimately converged towards those of ETF units. When markets are orderly, ETFs tend to replicate the value of the underlying indices faithfully.

Chart 3.12: ETFs were hit by substantial differences between units' market prices and NAV

x: month / y (left) difference between market price and net asset value in basis points / y (right) market price of units in %



Sources: Bloomberg, BIS

Notes: LQD ETF: iShares iBoxx \$ Investment Grade Corporate Bond ETF

Operational risks amid the health crisis

The health crisis necessitated a swift reaction by the financial sector to safeguard business continuity and enable the industry to keep operating with high levels of security.

Widespread adoption of remote working practices – including in a large swathe of market operations that have traditionally been excluded from teleworking arrangements – has presented a new challenge on an unprecedented scale for the sector.

This operational challenge during the Covid-19 crisis has several characteristic features:

- Global reach, as the pandemic is affecting most economies, with varying levels of intensity;
- Duration, since lockdown measures are spread over several months, could be reintroduced in the event of a second wave of the virus and are accompanied by strict health measures;
- Scale, because the operational challenges involve the employees of financial institutions as well as suppliers and clients;
- The need to ensure to ensure business continuity and set up new schemes such as PGE loans with shortened review times for banks;
- Massive use of telecommunications, with most people working from home or as part of alternating teams.

In this specific context, with the adoption of a new decentralised and remote approach to work organisation, cyber-risk is naturally a primary concern.

The organisational shift seems to have taken place without major problems so far and without significant signs of risks despite an upsurge in cases of online fraud (particularly phishing).

Lessons need to be learned from this unprecedented experience, as part of marketwide support initiatives led by the Banque de France to prevent operational risk. Aspects relating to the identification of key people, the resilience of communication infrastructures, and service continuity by critical suppliers deserve special attention in the next round of marketwide initiatives.

4. Medium-term challenges

4.1 Questions of international cooperation and equal regulatory treatment for the financial sector

Unlike during the financial crisis of 2008/2009, the coordination of economic policy responses has been far more limited this time around. Whereas the G20 meeting held in London in February 2009 laid the foundations for a joint response by the main economies, with steps to strengthen international financial institutions and commitments to help support an economic recovery, the G20 meeting in Riyadh in April 2020 merely agreed to suspend debt service payments for the poorest countries.

Several reasons may account for this:

- The asynchronous nature of the epidemic, which hit Asia first and then Europe before spreading to the United States and the rest of the world. In contrast, the financial crisis rocked financial markets all over the world at the same time;
- The asymmetrical impact of the epidemic, which has affected countries unevenly, partly as a result of their health responses. Early preventive measures helped to stem the spread in South Korea and Taiwan, reducing the need for more drastic measures and, hence, the economic cost of the pandemic;
- The fact that the current environment is unquestionably less conducive to international cooperation, as evidenced by recurring trade and political tensions between the United States and China.

During the Covid-19 crisis, supervisory and regulatory authorities have adopted multiple measures to help banks continue to provide financing to the economy. The Basel Committee has supported and coordinated these efforts, publishing several communiqués reiterating the flexibilities built into the existing framework, including arrangements for using capital and liquidity buffers. Owing to the exceptional nature of the crisis, the Basel Committee also deferred the implementation date for the December 2017 Agreement on the completion of Basel III standards by one year and adopted temporary and targeted adjustments to the current rules and to the transitional arrangements for expected credit loss provisioning.

Some national authorities temporarily eased regulatory requirements beyond the flexibilities provided for by the international framework. Accordingly, some countries went further than the arrangements allowed by the standard in exceptional circumstances and temporarily modified the method used to calculate the leverage ratio in order to exempt specific assets (central bank reserves, sovereign securities). While these emergency steps were carried out with a view to ensuring the smooth transmission of exceptional measures relating to monetary policy and financing of the economy, it is important to ensure that the short-term regulatory response to the Covid-19 crisis does not undermine the international prudential framework established in the wake of the financial crisis. A coordinated international approach needs to be maintained to ensure a level playing field for internationally active banks.

4.2 Devising a European response that is commensurate with the challenges

Relaunching the European economy

The pandemic has affected EU countries unevenly, while its impact on the growth outlook suggests that GDP will shrink by between 7% and 10% in the main euro area countries. The initial measures adopted in early April to contain the economic effects of the health crisis (including loans through the European Stability Mechanism of up to 2% of GDP, the EUR 100 billion temporary Support to mitigate Unemployment Risks in an Emergency (SURE) programme, European Investment Bank guarantees raising up to EUR 200 billion in additional financing) are intended to be supplemented by a recovery plan. On 27 May, the European Commission officially published its proposed European recovery plan, which is largely modelled on the Franco-German plan presented on 18 May.

The plan proposes to create a recovery instrument, called Next Generation EU, backed by funds of EUR 750 billion raised on the markets (0.7% of GNI). This will be in addition to the EU's multi-annual financial framework for the 2021-2027 period, which is to be modified primarily in terms of content rather than value (1.1% of GNI).

Funds raised will be released in the shape of supplementary expenditures (EUR 500 billion including EUR 400 billion in direct subsidies to support Member State recoveries) and loans to Member States (EUR 250 billion) according to a distribution formula that prioritises the countries hardest hit by the health crisis, with unemployment and GDP per capita indicators playing a key role.

Funds will be aimed at helping Member States to recover, encouraging investment through a leverage effect and strengthening Europe's health, environmental and digital resilience.

The Commission has given itself six months to reach an agreement, which will need the unanimous backing of the Council and Parliamentary approval.

The Next Generation EU recovery fund will be financed through common debt, with the Commission borrowing (on the basis of Art. 122 of the Treaty) at maturities ranging from three to 30 years. The funds are intended to be distributed in the shape of subsidies or loans to finance European and national programmes.

To issue the debt, the Commission is proposing to amend the decision on own resources to allow borrowing and raise the own resources ceiling on an exceptional and temporary basis by 0.6 pp. This increase will come on top of the own resources permanent ceiling, which will be set at 1.4% of GNI (up from 1.2% previously).

The funds raised will be repaid over the long run, beginning in 2028 and until 2058 at the latest, from future EU budgets. The EU is planning to increase its own resources over the long term and mentions four possible avenues for this that will be discussed by Member States:

- A European tax on large companies;
- A carbon border tax;
- Revenues from the emissions trading system;
- A digital tax.

The Next Generation EU plan is primarily based on three pillars:

1. **Provide financial support for Member State recoveries and** strengthen European structural and cohesion funds.
2. **Attract and encourage private investment through a leverage effect**, by creating a new solvency support instrument with a budget of EUR 31 billion and by strengthening the InvestEU programme.
3. **Learn the lessons from the crisis** by taking steps to promote Europe's health security and strengthen resilience in the areas of health and the green and digital transitions.

If the European Council endorses the plan's principles (loans and transfers) and procedures (own resources dedicated to repayment), then the European Commission's Next Generation EU proposal will represent a major step forward in strengthening the EU's economic stability by introducing a mechanism for fiscal solidarity between member countries that was lacking until now. The plan should make it possible to offset the shortfall in productive investment caused by the recession and help to accelerate the shift to a greener and more digital European economy.

Advance the Capital Markets Union initiative

Another dimension of the European response to the crisis has been to push forward with the Capital Markets Union (CMU) initiative. Launched in 2015, the initiative is designed to create a single capital markets union in Europe to more effectively finance companies and especially SMEs. Major legal, tax and regulatory differences between national markets hinder cross-border investment and hamper the efficient allocation of savings, to the detriment of European companies and retail savers. One of the initiative's goals is to do a better job of responding to the funding needs of SMEs, which currently have few alternatives to bank financing in the EU, and also of

companies with high growth potential, which need deep and dynamic markets to finance their entire development cycle. Increased equity market integration would also help to distribute risks more effectively at a macroeconomic level and promote greater diversification in European savings, which would go hand in hand with making Europe's economy more resilient.

In this regard, the creation of a recapitalisation fund for European SMEs as part of the recovery programme, under the authority of the EIF, would make it possible to allocate additional funds to European companies in the form of quasi-equity to be repaid at a later date depending on the company's success. This would round out the existing equity provision mechanisms, such as the European Fund for Strategic Investments (EFSI), which, through guarantees to private investors, provides a powerful leverage effect to stimulate fund-raising.

4.3 Increased environmental challenges

Major extra-financial risks

The Covid-19 pandemic has given rise to many comparisons with climate change. It could be that the current crisis is a taste of what is to come if we do nothing to address climate change. Comparisons between the current health crisis and the climate crisis need to be treated with caution, since the pandemic's animal origin has yet to be fully proven. **However, three main lessons can be drawn at this stage in terms of the links between Covid-19 and the climate crisis.** These involve the causes and characteristics of the crisis as well as the necessary responses.

Looking first at the causes, many experts have pointed out that the two crises have a shared source: the destruction of natural habitats. The many environmental crises that we are facing, from loss of biodiversity to soil erosion, and the linkages between these crises are posing unprecedented risks to our socio-economic and financial systems. Many recent infectious diseases can be traced back to animal origins and are linked to our lifestyles and development approaches. To give an example, the farming industry and deforestation are potentially conducive to the spread of infectious diseases and are thus increasing the threat of pandemics.

Regarding the crisis's characteristics, health and environmental crises alike can take the shape of “green swan” events,⁴⁶ which have three main features. First, they cannot be anticipated based on the backward-looking data used by conventional risk management tools. This raises the question of the data needed by financial participants to capture these new risks more effectively. Second, they are growing more probable, according to the scientific community, but their timing, location and form remain extremely hard to predict. The third feature, which is connected with the second, is that they can generate cascade effects that are almost impossible to precisely model owing to the complexity of international channels of transmission. For example, the Covid-19 crisis has exposed the vulnerability of different sectors to global value chain disruptions. By the same token, pandemic risks linked to melting glaciers could trigger cascade effects that are extremely hard to predict.

Promoting better recognition of climate challenges

Many observers consider that some aspects of the Covid-19 crisis herald the kind of situation that could arise if climate risks materialise in the near future. One planetwide source of climate risk is linked to the danger of a disorderly transition owing to an inadequate or delayed response by public authorities or key players, necessitating sharp economic and financial adjustments to achieve climate goals. The second source is that of physical risks, with a direct impact on people's lives and property or on productive capabilities, and reflected in an increase in the frequency and cost of extreme climate events.

To ensure that the financial institutions under its authority are sufficiently ready and in a position to identify and establish appropriate climate risk management structures and procedures, the ACPR is going to conduct a pilot climate stress test in 2020, with the main findings to be published in 2021. Preparations for this exercise were conducted in partnership with the industry through working groups set up in April 2019. The test is to be conducted on a voluntary basis and will not affect capital requirements.

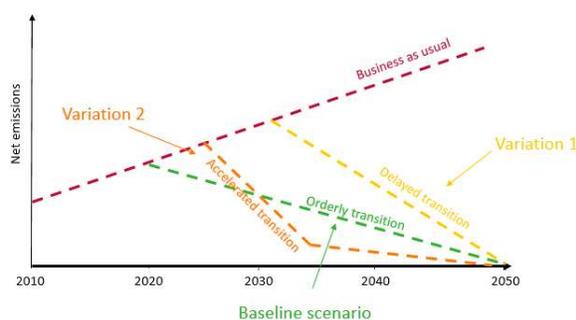
⁴⁶ The term is a reference to “black swan” theory, which deals with low-probability, high-impact events.

The scenarios used in the exercise draw on scenarios prepared by the Network of Central Banks and Supervisors for Greening the Financial System and were created with the aid of the Banque de France. **The exercise includes three major innovations compared with the standard stress tests carried out by supervisors:** first, a long-term horizon is used, covering the 2020-2050 period; the idea is to give institutions the opportunity to take management decisions and adjust their balance sheets dynamically in response to the materialisation of climate risks; the exercise also captures transitional and physical risks at the global level in order to reflect the international exposures of France's main financial groups. It is also a sector-specific exercise, as the impact of climate change and transition policies differs across business sectors, with some benefiting from opportunities offered by the green transition while others are hard hit when these risks materialise.

For the pilot exercise, the ACPR is using three transition scenarios and one physical risk scenario (Chart 4.1 below). The transition scenarios include a baseline scenario, which is close to the one used in France's national low carbon strategy, and two adverse transition scenarios (variations 1 & 2) over the 2020 to 2050 period. The two adverse scenarios build in different assumptions about the timing and scale of public measures, the maturity and cost of technological developments for energy production and use, and potential crowding-out effects on investment in other sectors. Each scenario therefore combines different assumptions relating to: i) the trajectory of the carbon tax; ii) total factor productivity.

Chart 4.1: Transition and physical risk scenarios included in the pilot exercise

x: year / y: net carbon emissions



Source: ACPR

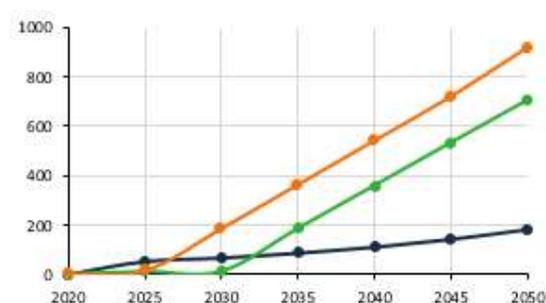
The final “business as usual” scenario (see Chart 4.1) is used to assess the effects of physical risk: it is based on the most pessimistic scenario for climate warming (Representative Concentration Pathway 8.5) and assumes that the policies implemented over the 2025-2050 period will have no effect on climate warming by 2050, with the warming trajectory being determined by the amount of greenhouse accumulated in the atmosphere over the previous 20 to 25 years.

The analysis of physical risk will take a two-stage approach: an assessment of insurers’ commitments, carried out in conjunction with Caisse Centrale de Réassurance (CCR) and considering four areas of climate risk (coastal flooding, inland flooding, droughts, plus hurricanes for overseas regions) along with recognition of health and mortality risks (increased mortality linked to an increase in the frequency and duration of heatwaves and the emergence of dengue- or zika-type vector-borne pandemics), performed in conjunction with AON. Next, a sensitivity analysis will be used to gauge the impact of higher prices, changes to the scope of coverage or modifications to the natural catastrophe regime on bank risk parameters (probabilities of default and losses in the event of default). A consistency check will also be conducted to ensure that the management measures considered by financial institutions under the dynamic balance sheet assumption are compatible with the structure of the economy to be financed and insured.

The aim of the exercise is to measure the exposures and vulnerabilities of the French financial sector to various climate scenarios developed in close partnership with industry. Its goal is especially to raise awareness in the banking and insurance sector about climate change risk and its financial consequences, particularly by encouraging

Chart 4.2: Carbon price trajectories underlying the three scenarios proposed by the ACPR

x: year / y: price per tonne of carbon dioxide equivalent in 2010 USD



Source: ACPR

institutions to integrate a longer-term view in their strategic decisions. One of the main results expected from the exercise will be to identify inadequacies and limitations of existing measurement tools, as well as the data and indicators needed to monitor and properly assess the risks of climate change to the financial sector.

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