



### Monetary policy measures during the first phase of the Covid-19 crisis

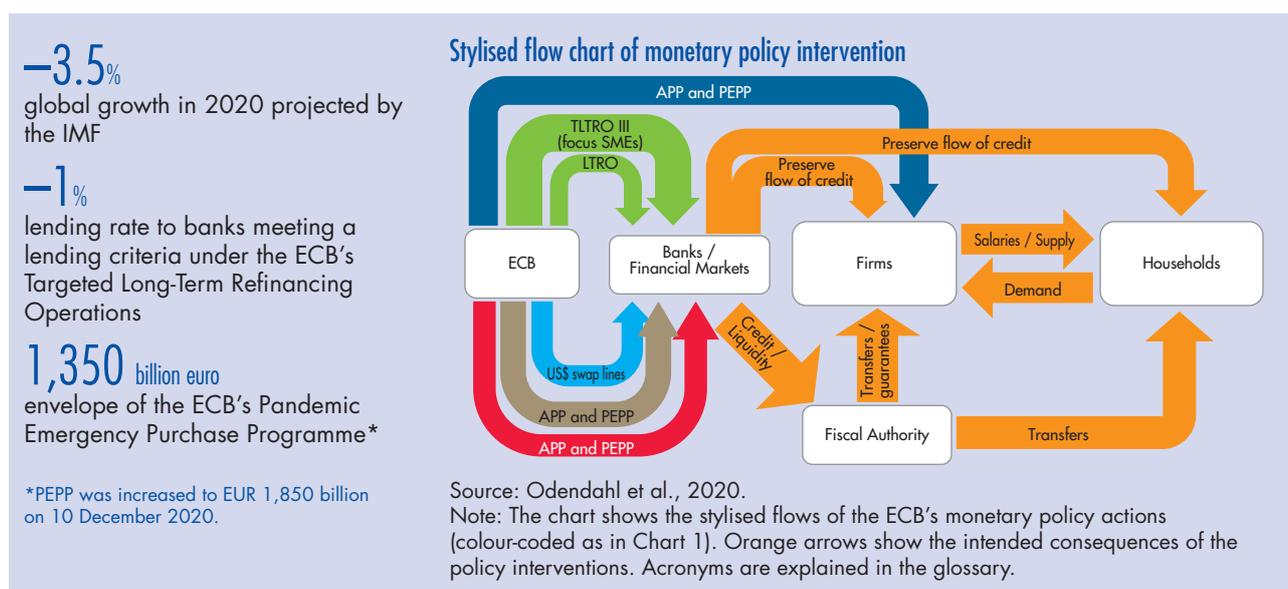
Covid-19 began to circulate in the euro area with a significant number of cases in late February and early March 2020. By 11 March, it had been declared a “global pandemic” by the World Health Organization, and increasingly stringent restrictions were imposed to contain the public health emergency. Economic activity in many sectors was effectively suspended almost everywhere in the world. Measured economic output contracted at the fastest rate recorded since World War II. Between March and June, in response to the first stage of the crisis, the major central banks implemented monetary policy measures that shared many common features. Together, and combined with extraordinary government emergency responses, they have cushioned the economic crisis by short-circuiting amplification mechanisms. This article does not cover the policy response to the more recent “second wave” of infections, after summer 2020.

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This article expands on a blog post co-written with Florens Odendahl.





**C**ovid-19 is a highly virulent and deadly coronavirus that propagated rapidly in the euro area in its first wave from late February through to mid-May 2020. Left to spread without government intervention, the pandemic would have overwhelmed health systems, resulting in even more people in need of medical attention.

The medical imperative to impose a partial or general lockdown of the population significantly reduced economic activity, increased the risk of business failures and led to a sharp rise in unemployment. In such circumstances, providing additional and temporary liquidity to businesses and households was essential. In parallel, an increase in volatility in financial markets caused by investors looking for liquidity required other targeted monetary policy interventions. Chart 1 presents a timeline of the actions taken by the four main G7 central banks: the European Central Bank (ECB), the Bank of Japan (BoJ), the US Federal Reserve (Fed), and the Bank of England (BoE). With the exception of the BoJ, which introduced a single package, the major central banks applied additional measures as estimates of the economic outlook worsened.

### 1 The unfolding economic crisis was different from the 2008 financial crisis...

The recession caused by Covid-19 will significantly exceed the one that followed the collapse of Lehman Brothers in 2008. The ultimate cost is still unclear but the global economy is forecasted to have contracted by -3.5 percent in 2020 by the IMF (IMF, 2021).

A key difference from the financial crisis of 2008 is that banks and other financial institutions were healthier when the emergency occurred and not the origin of the shock. Although there were initially very large falls in stock markets and increases in risk spreads, the financial system continued to function smoothly.

Instead, the primary focus of this crisis was and is on firms and households, particularly in countries where welfare safety nets and short-time working schemes are less developed. The lockdown measures taken globally suspended economic activity in all service industries requiring physical proximity, severely constrained

production and supply chains elsewhere and disrupted labour supply everywhere. The resulting loss of income and spending power by households and firms amplified the recession (Guerrieri et al., 2020; Gourinchas, 2020; ILO, 2020).

It is natural for firms and households under strain to start hoarding cash. Firms demand payment from creditors but delay making payments to suppliers. However, this harms the liquidity position of the supplier and so on down the line. Likewise, the default of one firm can trigger a chain of further defaults. Many healthy firms could have disappeared before the containment measures were relaxed, triggering an even more rapid increase in the unemployment rate. This risk still persists as households continue to limit expenditure on goods and services requiring physical proximity. Social distancing is not only imposed but also voluntary in response to heightened risk of contagion.

### 2 ... and required more targeted responses

These unique circumstances called for comprehensive policy responses adapted to the crisis (Gopinath, 2020). The objective was not to bring forward demand from the future to today, as monetary policy would normally do, since there was little point in increasing demand immediately when there was a constraint on supply and a need to impose social distancing. Instead, the objective was to allow as many viable businesses and employment relationships to survive until conditions stabilised and eventually returned closer to normal levels. Monetary policy cannot prevent an economic downturn, but it can alleviate the economic impact and contribute to a more rapid recovery.

Governments put in place extraordinary emergency measures to avoid mass lay-offs, introduced or reactivated so-called short time working schemes, provided tax relief and credit guarantees, supported small businesses, and increased public spending on health care. In March 2020, the United States federal government introduced the Coronavirus Aid, Relief and Economy Security Act ("CARES Act") in order to provide emergency assistance and health care for households and businesses, support equivalent to around 11% of GDP. The Paycheck Protection Program, which provided forgivable loans to small



businesses, was an important part of the CARES Act. The UK government introduced tax and spending measures in March (equivalent to over 5% of GDP) along with loan guarantee programmes to facilitate businesses' access to credit. In April 2020, the Japanese government adopted the Emergency Economic Package Against Covid-19, with commitments equivalent to around 20% of GDP, and further doubled it in May 2020.<sup>1</sup> Governments in the euro area also implemented discretionary fiscal measures (of around 3.25% of GDP) and provided state guarantees for loans to firms and other liquidity support amounting to almost 24% of GDP (European Commission, 2020).

### 3 Central banks across the world also took action to support the economy

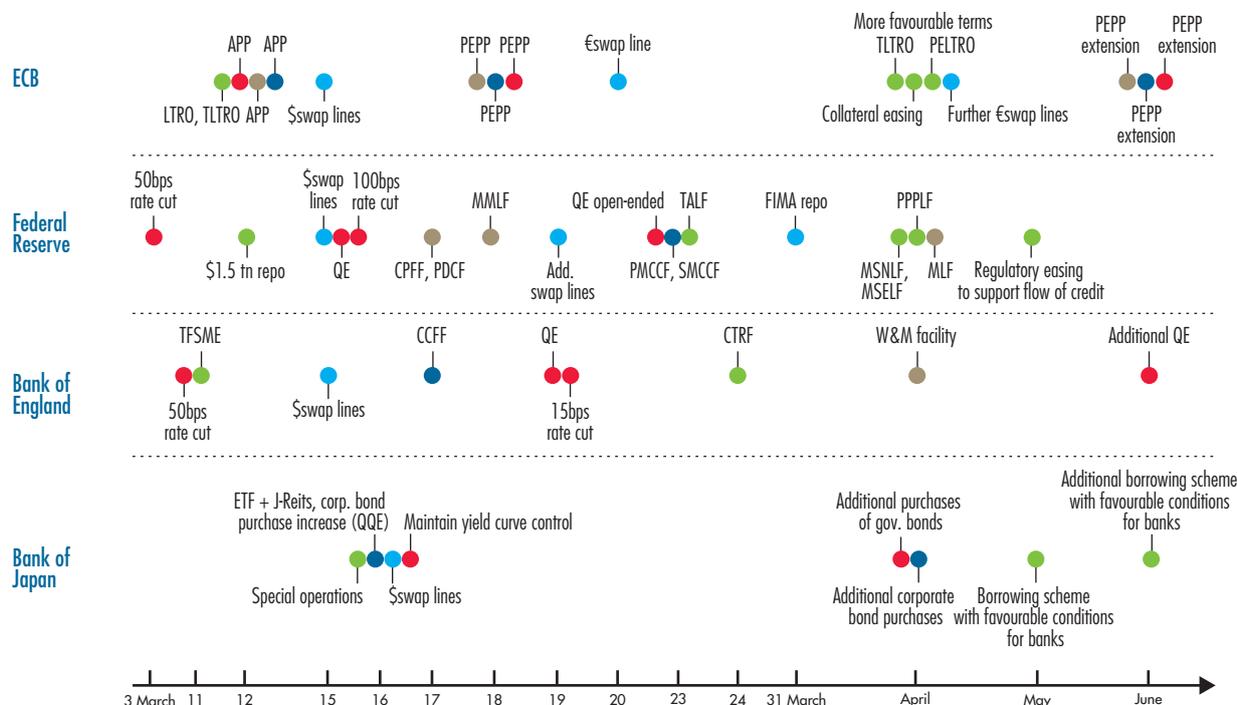
Central banks were also very active in the pursuit of their mandates, implementing within a month a variety of large-scale measures, a pace much quicker than in

previous crises. Although modalities differed according to the structure of the economy, the measures were broadly convergent, as reflected in the colour coding in Chart 1.

These measures were designed to support credit flows to the real economy through financial markets and the banking system. In contrast with the crisis in 2008-09, in which direct support to banks and other financial institutions was more important, financial markets and the banking system continued to function relatively smoothly.

Chart 2, which focuses on the ECB case, illustrates that these actions were intended to work through several distinct channels: directly helping the real economy through lower risk-free interest rates; helping banks supply liquidity to their clients, especially SMEs; supporting capital markets and supplying credit; keeping dollar financing available; and in the euro area, maintaining the single transmission mechanism.

C1 Timeline of central banks' main responses to the Covid-19 crisis



Source: Banque de France.

Note: The chart is colour-coded by main transmission channel (stimulate the real economy by keeping risk-free interest rates low – red –, providing liquidity to bank clients – green –, supporting capital markets – blue –, containing spreads – brown –, keeping dollar financing flowing via swaps lines between central banks – yellow), see text and glossary. (Measures can have more than one channel.)

<sup>1</sup> Over 70% of these quoted figures related to financial guarantees and loans to the private sector.



### Keep risk-free interest rates low

Those central banks with room to cut their short-term policy rates did so. The Fed and the BoE cut their policy rates to what they regard as their effective lower bounds, 0-0.25% and 0.1% respectively. The ECB and the BoJ were already running highly accommodative policy with negative effective interest rates of -0.5% and -0.1% respectively (see Chart 3, panel A).

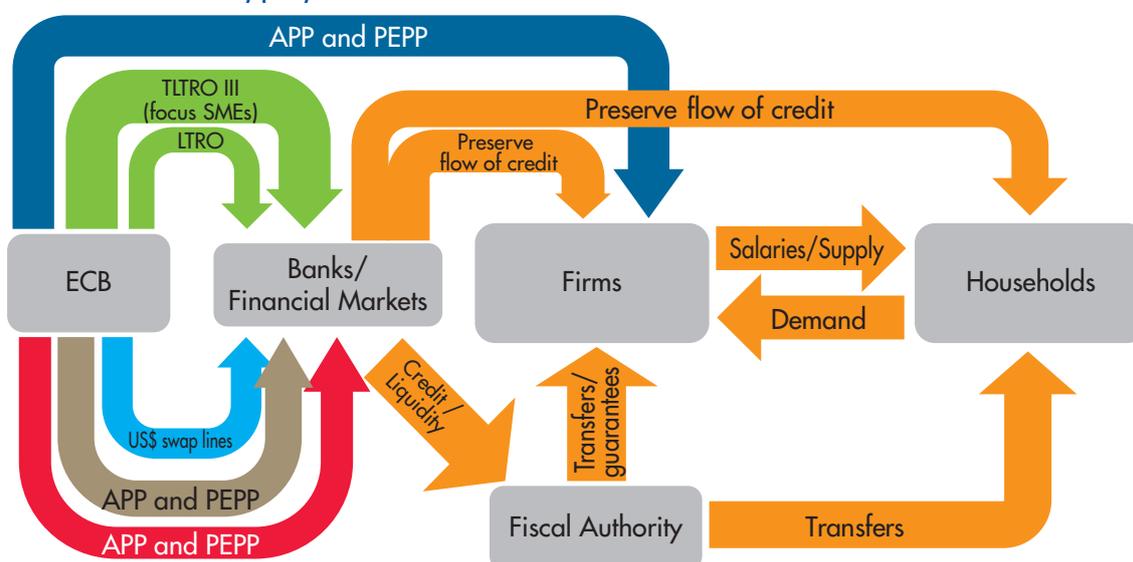
Even after short-term policy rates have reached zero or negative levels, central banks can still stimulate demand by lowering medium and longer-term risk-free rates through so-called “unconventional measures”. Since the outbreak of the Covid-19 crisis, these central banks restated their intentions to keep their policy rates at exceptionally low levels, thereby reducing expected future policy rates and lowering longer-term market interest rates.<sup>2</sup>

The announcement of intentions to make additional purchases of longer-term assets also lowered risk-free

interest rates along the yield curve, which should be passed on to firms and households as lower borrowing rates, easing financial pressure during this period and helping the recovery when confinement is no longer necessary. Longer-term interest rates are a particularly important component of the monetary policy transmission mechanism as they have an important effect on durable goods expenditure and business investment. Moreover, from the finance perspective, longer-term rates are fundamental determinants of mortgage rates, derivatives prices and the value of other long-term financial assets.

Chart 3 (panel B) shows the evolution of ten-year overnight indexed swap rates (OIS).<sup>3</sup> These longer-term rates decreased significantly in February as the risk of a recession grew but began to spike up sharply as the crisis intensified in March. In response, central banks restarted or extended their purchases of longer-term assets. The ECB introduced a Pandemic Emergency Purchase Programme (PEPP) of EUR 750 billion on 18 March in addition to the EUR 120 billion extension of the

### C2 Stylised flow chart of monetary policy intervention



Source: Odendahl et al., 2020.

Note: The chart shows the stylised flows of the ECB’s monetary policy actions (colour-coded as in Chart 1). Orange arrows show the intended consequences of the policy interventions. Acronyms are explained in the glossary.

2 The Fed lowered the target range for the federal funds rate to 0-0.25% on 15 March 2020 and announced that it “expects to maintain this target range until it is confident that the economy has weathered recent events and is on track to achieve its maximum employment and price stability goals”. The ECB amended its state-contingent forward guidance in September 2019: “The Governing Council now expects the key ECB interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics.”

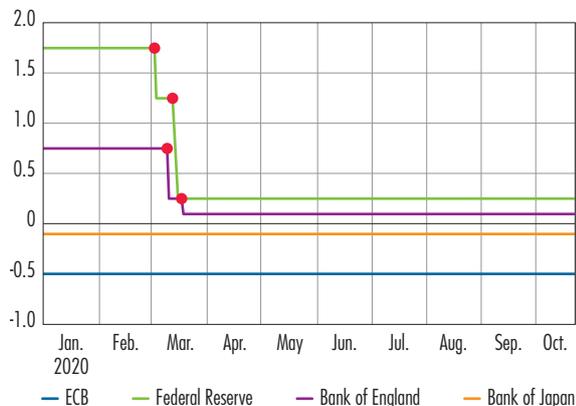
3 OIS are derivative contracts that are linked to a reference overnight interbank interest rate. There is no exchange of principal and only the net difference in interest rates is paid at maturity, so there is very little default risk in the OIS market. In particular, they do not contain sovereign risk premia, which is an important consideration in the euro area. Moreover, OIS contracts do not involve any initial cash flow, minimising liquidity risk. They can however include term premia (Lloyd, 2018). As a result, long-dated OIS contracts can be used as market expectations of average future risk-free short-term rates.



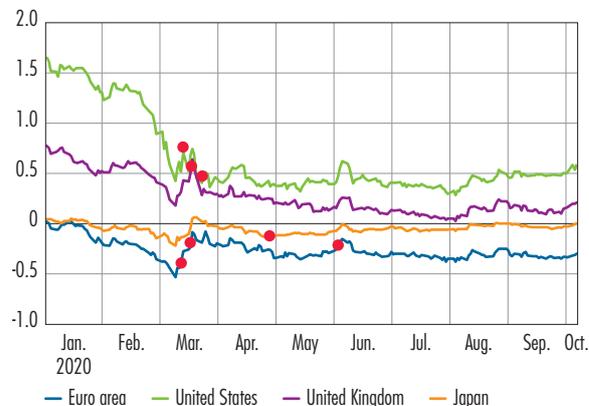
### C3 Risk-free rates

(%)

#### a) Central banks' policy rates



#### b) 10-year overnight index swaps



Source: Datastream.

Note: Red circles correspond to the timing of the ECB, Fed, BoE and BoJ measures presented in Chart 1.

OIS (overnight indexed swaps) are derivative contracts that are linked to a reference overnight interbank interest rate.

Asset Purchase Programme (APP) previously announced on 12 March. The Fed announced an unlimited purchase programme and the BoE announced a GBP 200 billion programme. The Reserve Bank of Australia innovated by announcing a government bond purchasing scheme to cap 3-year yields at 0.25%. The BoJ announced that it would buy all necessary assets to control the yield curve, and in particular to maintain the ten-year rate close to 0%. On 4 June, the ECB increased the PEPP purchase envelope by EUR 600 billion, extended the duration of purchases until June 2021 and announced that securities purchased under the PEPP would be reinvested at least until the end of 2022.<sup>4</sup> These measures succeeded in stabilising and reversing the upward pressure on longer-term risk-free yields.

### Help banks provide liquidity to their clients, especially SMEs

The second channel was to provide abundant liquidity to banks and increase their incentives to pass this on to clients. The efficacy of these measures was substantially enhanced by the provision of government guarantees for additional borrowing. This channel was particularly relevant for economies heavily dependent on bank credit, such as the euro area. To do so, central banks increased

the amounts available in regular refinancing operations. They also increased the incentives for banks to extend loans to businesses by easing the conditions at which they can borrow if they expand credit (the TLTRO III for the ECB, the TFSME for the BoE, and the Main Street Loan Facility [MSELF and MSNLF] and the Paycheck Protection Program Lending Facility [PPPLF] for the Fed). The ECB's TLTRO III announced on 12 March provided long-term funding through a sequence of operations over the period from June 2020 to June 2021. For banks that meet a non-residential lending criterion to households and firms, the rate applied in these operations, over the period ending in June 2021, was initially set at 25 basis points below the average interest rate on the deposit facility over the same period.<sup>5</sup> On 30 April, this rate was lowered to 50 basis points below the deposit facility rate. Since the deposit facility rate was (and remains) -50 basis points, a bank that meets the eligibility criteria will be effectively paid 1% for participating in the operation. On 30 April it was decided that banks could obtain this rate if they at least maintained their stock of loans to firms and households (excluding mortgage lending) at the level of 1 March 2020 until 31 March 2021. Furthermore, lending allowances were temporarily raised from 30% to 50% of the stocks of eligible loans.<sup>6</sup>

<sup>4</sup> The PEPP was extended and enlarged again in December 2020.

<sup>5</sup> The deposit facility rate is the interest banks receive for depositing money with the central bank overnight.

<sup>6</sup> These TLTRO measures were also extended in December 2020.



Central banks also eased collateral requirements. This increases the amounts the banks can draw through their lending facilities and supports markets for those assets.

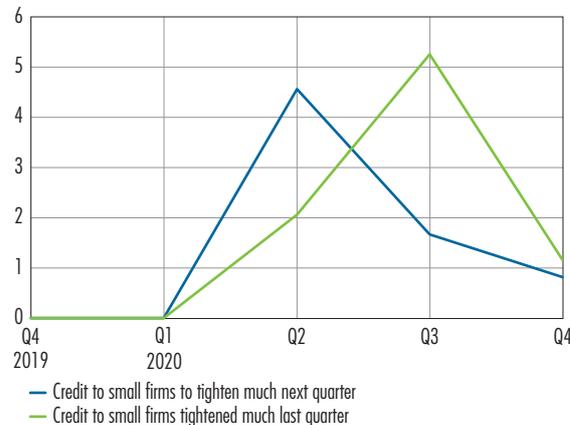
Chart 4 (panel A) shows that, according to the ECB Bank Lending Survey, lending conditions to SMEs tightened in the euro area during the onset of the Covid-19 crisis. Indeed, more euro area banks reported a significant tightening of credit standards for loans to SMEs in the first and the second quarter. However, they were not expecting at the time to tighten credit conditions to SMEs as much in the third and fourth quarters. Moreover, the survey reported that, in contrast with the previous financial and sovereign debt crises, the credit standards for loans to all firms did not tighten significantly, which can be explained by the monetary policy measures and loan guarantees provided by governments. Panel B of Chart 4 shows indeed that loans to non-financial corporations (NFCs) increased between February and August by 6.5%. The loan rates applied by euro area and French financial institutions to NFC also declined (see panel C of Chart 4). The drop in rates to NFCs in France is particularly significant and coincides with the launch of the state-guaranteed loan scheme (*prêts garantis par l'Etat*, PGE). Through this measure, the French state guarantees new bank loans up to 90% in order to support firms in dealing with the liquidity shock due to Covid-19, up to the amount of EUR 300 billion.

### Help firms that rely on capital markets

Central banks are also supporting companies that raise finance through capital markets by buying corporate securities. These purchases lowered corporate bond yields and increased the value of firms' collateral and indirectly helped big companies make payments to small suppliers. The ECB increased the amounts purchased under the Corporate Sector Purchase Programme (CSPP) and is buying additional corporate bonds under the PEPP. The Fed has launched, for the first time, facilities to buy corporate bonds through the Primary and Secondary Market Corporate Credit Facility, PMCCF and SMCCF respectively. The BoE has its Covid Corporate Financing Facility (CCFF).

### C4 Bank loans to NFCs

a) Lending conditions to SMEs - ECB Bank Lending Survey (% net)



b) Bank loans to NFCs and households - euro area (January 2020 = 100)



c) Interest rate on new loans to NFCs (%)



Sources: Datastream, ECB (Bank Lending Survey).

Notes: NFCs = non-financial corporations. For chart a) percentages of banks responding "tightened considerably" to the question concerning the evolution of the bank lending conditions to SMEs.



### C5 Corporate bond spreads

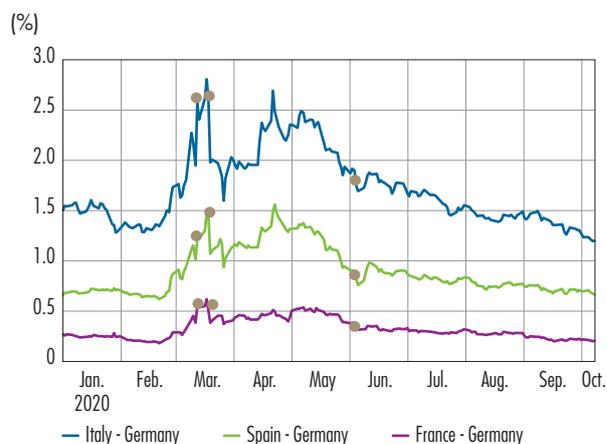
Corporate bond rates minus 10-yr OIS



Source: Datastream.

Note: Blue circles correspond to the ECB, Fed, BoE and BoJ measures presented in Chart 1. OIS (overnight indexed swaps) are derivative contracts that are linked to a reference overnight interbank interest rate.

### C6 Euro area sovereign bond spreads



Source: Datastream.

Note: Brown circles correspond to the ECB measures presented in Chart 1 aimed at reducing sovereign spreads.

The BoJ, which is the only central bank to purchase firms' shares, has doubled its purchases of equity exchange traded funds (ETFs).

As can be seen in Chart 5, corporate spreads increased dramatically in the United States, the United Kingdom and the euro area in March 2020. They have declined steadily since the monetary and fiscal policy support measures announced in March (and then augmented by the ECB in June) but have not yet completely attained their pre-crisis level.

### Maintain the transmission mechanism

During the peak of the crisis of the first wave, the transmission of central bank-controlled rates to other interest rates was impaired and risk premia in many markets soared. The Fed directly targeted disrupted markets with its emergency liquidity programmes for money market mutual funds, state and local governments (via the Municipal Liquidity Facility, MLF) and corporate paper issuers. The BoE temporarily extended its ways and means facility to ensure the smooth functioning of short-term money markets.

In the euro area, disparities also appeared in refinancing conditions for governments, banks and

companies between member countries, putting at risk the transmission of the single monetary policy. Chart 6 shows that sovereign spreads increased in March 2020 as market participants started to price in the possibility of much higher fiscal expenditure and sovereign debt ratios. The risk that some member countries' access to market refinancing would be reduced or made extremely costly was elevated. In particular, there was the risk of "self-fulfilling" expectations. To preserve the single monetary policy in the euro area and prevent fragmentation risk, the PEPP was designed with additional flexibility to allow for "fluctuations in the distribution of purchase flows over time, across asset classes and among jurisdictions" (ECB, 2020). By alleviating tensions in the sovereign debt market, the ECB managed to prevent this "bad equilibrium" outcome.

### Keep dollar financing flowing

Central banks also cooperated to ease tensions in US dollar funding markets through improved terms on standing dollar swap lines, extending temporarily their number, and through repurchase operations with the Fed (FIMA). Avdjiev et al. (2020) show that central banks' intervention succeeded in restoring the functioning of the short-term US dollar funding markets.



### 4 Conclusion

Monetary policy cannot prevent economies from falling into recession and the economic crisis triggered by the measures necessary to contain the spread of Covid-19 is no exception. However, the measures implemented by the world's major central banks have helped short-circuit many amplification mechanisms that could have made the crisis even worse. By lowering the cost of borrowing and increasing the availability of loans,

monetary policy has helped many firms and households to survive this exceptionally difficult period. Central banks have also assisted the financial system through the provision of long-term liquidity and the relaxation of collateral requirements. These measures have aided banks in helping their clients. They have also provided foreign currency swap lines to support international payment flows. Together, these measures have cushioned the economic crisis and improved the prospects of a sustained recovery in the future.

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[View blog post](#)



## Appendix Glossary

<b>APP</b>	asset purchase programme	<b>PMCCF</b>	primary market corporate credit facility <a href="https://www.federalreserve.gov/">https://www.federalreserve.gov/</a>
<b>CPFF</b>	commercial paper funding facility	<b>PPPLF</b>	paycheck protection program liquidity facility <a href="https://www.federalreserve.gov/">https://www.federalreserve.gov/</a>
<b>CCFF</b>	covid corporate financing facility <a href="https://www.bankofengland.co.uk/">https://www.bankofengland.co.uk/</a>	<b>QE</b>	quantitative easing
<b>CSPP</b>	corporate sector purchase programme	<b>QQE</b>	quantitative and qualitative monetary easing
<b>CTRF</b>	contingent term repo facility	<b>SMCCF</b>	secondary market corporate credit facility <a href="https://www.federalreserve.gov/">https://www.federalreserve.gov/</a>
<b>DFR</b>	deposit facility rate	<b>SPV</b>	special purpose vehicle
<b>ETF</b>	exchange traded fund	<b>TALF</b>	term asset-backed securities loan facility
<b>FIMA</b>	repurchase agreement facility for foreign and international monetary authorities <a href="https://www.federalreserve.gov/">https://www.federalreserve.gov/</a>	<b>TFSME</b>	term funding scheme with additional incentives for SMEs <a href="https://www.bankofengland.co.uk/">https://www.bankofengland.co.uk/</a>
<b>J-REIT</b>	Japan real estate investment trust	<b>TLTRO</b>	targeted longer-term refinancing operations <a href="https://www.ecb.europa.eu/">https://www.ecb.europa.eu/</a>
<b>LTRO</b>	longer-term refinancing operations	<b>W&amp;M</b>	ways and means facility <a href="https://www.bankofengland.co.uk/">https://www.bankofengland.co.uk/</a>
<b>MMLF</b>	money market mutual fund liquidity facility		
<b>MLF</b>	municipal liquidity facility <a href="https://www.federalreserve.gov/">https://www.federalreserve.gov/</a>		
<b>MSELF</b>	main street expanded loan facility <a href="https://www.federalreserve.gov/">https://www.federalreserve.gov/</a>		
<b>MSNLF</b>	main street new loan facility <a href="https://www.federalreserve.gov/">https://www.federalreserve.gov/</a>		
<b>OIS</b>	overnight indexed swap		
<b>PDCF</b>	primary dealer credit facility		
<b>PELTRO</b>	pandemic emergency longer-term refinancing operations		
<b>PEPP</b>	pandemic emergency purchase programme <a href="https://www.ecb.europa.eu/">https://www.ecb.europa.eu/</a>		

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