



# **BANK OF FINLAND BULLETIN**

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# Monetary policy implementation in changing times

25 AUG 2020 11:00 AM • BANK OF FINLAND BULLETIN 4/2020 • EDITORIAL

The coronavirus pandemic has brought monetary policy operations back into the spotlight, as central banks around the world have taken up new monetary policy measures. We too at the Eurosystem have swiftly launched new measures which support price stability and growth and employment in the euro area.



As a member of the ECB Governing Council, the Governor of the Bank of Finland participates in monetary policy decision-making. For these decisions to have an effect on the finances of European households and businesses, practical measures must first be taken in the financial markets—monetary policy has to be implemented.

Over the past decade, as a result of the global financial crisis, the European sovereign debt crisis and the coronavirus pandemic, implementing monetary policy has become considerably more multifaceted. Instead of largely relying on the main interest rate to guide economic activity, monetary policy implementation has been expanded to include targeted longer-term lending to banks, large-scale asset purchases, and forward guidance.

Euro area national central banks, such as the Bank of Finland, are responsible for implementing monetary policy. We issue central bank loans to banks operating in Finland. We purchase Finnish government bonds, covered bonds issued by Finnish banks, and corporate bonds as part of the Eurosystem's monetary policy purchase



programmes. The benefits of cooperation are highlighted in crisis situations: as part of the euro area, Finnish banks and financial markets have access to the same funding channels at similar requirements as other entities in the area.

The Bank of Finland has currently issued over EUR 20 billion of central bank credit to banks. We issue credit at a negative interest rate. If and when our counterparties maintain their lending to the real economy, we reimburse them one percent of their loan amount during the first 12 months. In other words, a EUR 20 billion loan will shrink to EUR 19.8 billion in 12 months, even without amortisation. By offering central bank funding at exceptionally affordable rates we facilitate domestic bank lending to Finnish businesses and households. In doing so, we support economic growth and employment in Finland, which is needed for ensuring price stability in the euro area.

When we lend to banks, we always require that the loans be fully collateralised. Sufficiency of collateral can become an issue as credit volumes increase. To ensure that this does not prevent monetary policy from achieving its desired impact, the eligibility criteria for collateral have been relaxed in the euro area during the crisis. Most recently, the Bank of Finland decided to adopt its own framework for Additional Credit Claims (ACC) as of 1 September 2020. This means that, going forward, bank loans which do not satisfy all the standard eligibility criteria for collateral will exceptionally be accepted as such for monetary policy credit operations. These bank loans include, for example, loans guaranteed by Export Credit Agency Finnvera due to the coronavirus pandemic.

At the end of July the Bank of Finland's balance sheet contained nearly EUR 57 billion in securities held for monetary policy purposes. The majority of these securities comprise Finnish sovereign bonds. The Eurosystem currently holds a total of about EUR 40 billion of Finnish government and government-related bonds acquired for monetary policy purposes, which is nearly one-third of Finland's sovereign debt. When we purchase bonds, this lowers yields in bond markets and creates more favourable financing conditions for Finnish government, banks, households and businesses. This ultimately supports investment and consumption, as is currently required by the weak outlook for economic activity and inflation.

In addition to conducting monetary policy in the financial markets, the Bank of Finland manages financial assets currently totalling about EUR 11 billion. These assets include Finland's gold and foreign exchange reserves and the Bank of Finland's euro-denominated financial assets. We maintain foreign exchange reserves for monetary policy purposes and to safeguard liquidity in Finland in crisis situations. They are therefore invested in a secure and liquid manner. Our primary goals for managing our other financial assets are—within the constraints of monetary policy—maintaining the real value of our balance sheet (i.e. generating a return), ensuring financial intermediation to domestic firms, and safeguarding financial stability.

In the early stages of the coronavirus pandemic, the Bank of Finland helped stabilise the market for Finnish commercial paper with its euro-denominated investment activities. Here investors had largely retreated from a market important for domestic corporate finance. In the acute phase of the crisis, the Bank of Finland purchased domestic commercial paper at a total of nearly EUR 1 billion. This helped restore normal market conditions and eased the pressure put on bank lending to firms when uncertainty was at

its highest.

In managing our financial assets, we have recently increased the role of sustainability in our investment activities. As evidence of this, in December 2019 the Bank of Finland undersigned the [UN Principles for Responsible Investment](#). The Bank has applied practices of responsible investment for several years already. By undersigning the Principles, we strengthened our commitment to the continuous development of responsible investment practices.

Helsinki, 25 August 2020

Tuomas Vähimäki  
*Member of the board*

## Tags

[monetary policy](#), [market operations](#), [implementation](#), [corona](#)

# Recent economic crises have modified the Bank of Finland's market operations

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY



Juha Niemelä  
Head of Market Operations



Tuomas Välimäki  
Member of the Board

Since the global financial crisis and the European sovereign debt crisis, the traditional means used by central banks to influence economic activity and inflation have changed significantly. Once nominal risk-free interest rates fell towards zero, central banks' ability to implement monetary policy by simply adjusting their key interest rates ceased. Instead, in recent years central banks have eased financing conditions by conducting large-scale asset purchases and offering banks refinancing on favourable terms.



The normal functioning of the economy requires smooth financial intermediation between economic agents. In economic crises, however, uncertainty can risk impeding the flow of finance. This puts particular emphasis on the central bank's role in securing financial intermediation. Since the onset of the coronavirus pandemic in the spring of 2020, the Eurosystem and the Bank of Finland have introduced changes to monetary policy implementation that have mitigated the decline in the economy and market turbulence.

Overall, central banks, including the Bank of Finland, have seen their operations on financial markets change significantly in recent years. The composition of the Bank's larger balance sheet, as well as the risks associated with it, are justifiably different

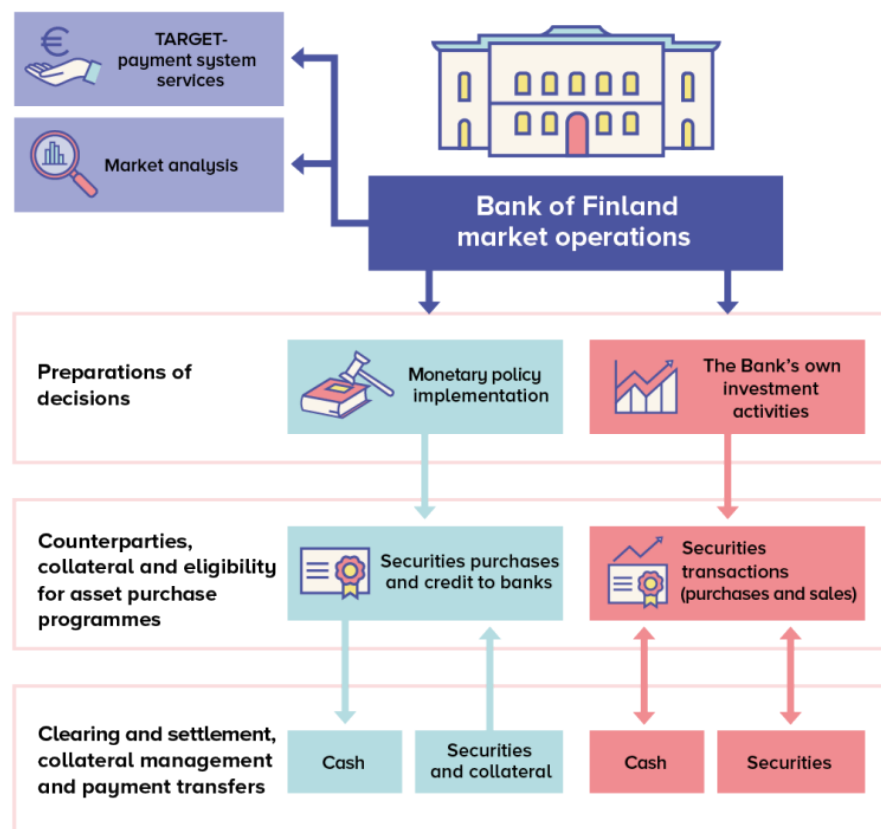
following the turbulence of recent years.

## Monetary policy implementation was straightforward until the financial crisis

The Bank of Finland implements monetary policy in Finland as part of the Eurosystem. Monetary policy operations are reflected as line items on the Bank of Finland's balance sheet, and these include asset purchases and the deposits of and loans to banks operating in Finland. In addition to implementing monetary policy, the Bank of Finland manages its net financial assets on the financial markets (Chart 1). These activities are all reflected in the Bank of Finland's balance sheet (Chart 2).

Chart 1.

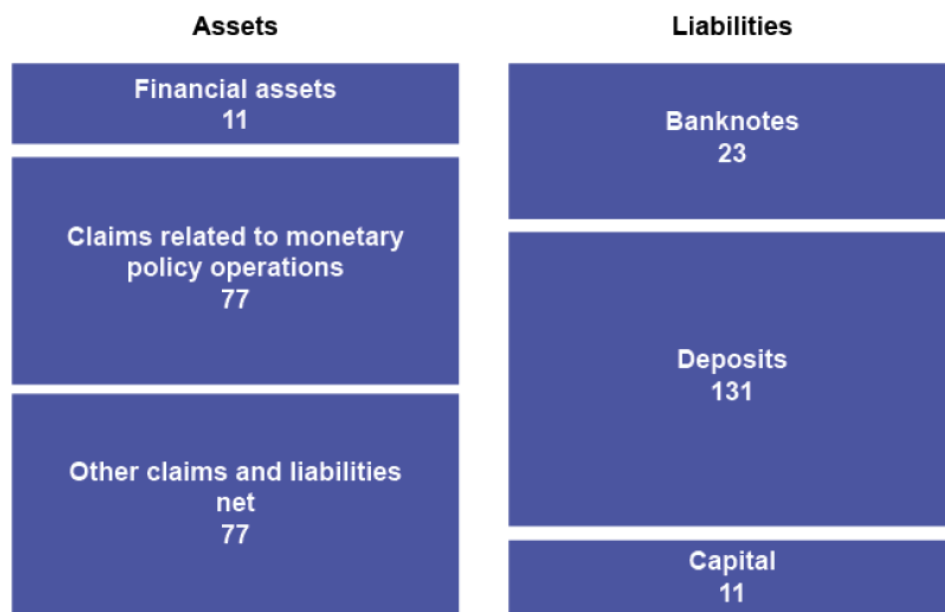
### The Bank of Finland's activities in financial markets



Source: Bank of Finland.

Chart 2.

## Simplified Bank of Finland balance sheet (EUR billion)



Source: Bank of Finland, information as of 31 July 2020.

25.8.2020  
bofbulletin.fi

The main objective of the Eurosystem's monetary policy is price stability. By keeping inflation stable, monetary policy can facilitate economic growth and employment and prevent unpredictable redistribution of wealth and income. The European Central Bank (ECB) aims to keep the annual rate of inflation in the euro area at levels below, but close to, 2% over the medium term.

Monetary policy influences economic activity and, most especially, prices through an assortment of channels collectively known as the transmission mechanism of monetary policy. The transmission process involves a number of phases, which is why monetary policy has a lagged impact on prices. As the prevalence and magnitude of policy effects will vary depending on economic conditions, it is difficult to accurately predict them. The vast economic and financial turbulence of recent years and the new monetary policy measures devised by central banks, which include negative interest rates and large-scale asset purchases, have made it all the more challenging to assess the transmission of monetary policy.

Monetary policy implementation requires a target that is more tangible than the end-goal of price stability. Before the financial crisis, the level of short-term money-market interest rates served as the main operational target for monetary policy implementation for all the major central banks. Monetary policy was implemented with a symmetric interest rate corridor, where central banks adjusted the amount of liquidity available in the banking system to steer overnight interbank interest rates towards the central bank's main policy rate.<sup>[1]</sup>

*Monetary policy implementation was rather straightforward before the financial*

crisis. In the euro area, the ECB conducted auctions of short-term, one-week loans to banks on a weekly basis (*main refinancing operations*). Changing the price of credit in these operations influenced short-term money-market rates. Changes in the money market rates were then reflected in other interest rates, for example in interest rates for bank loans. In Finland monetary policy transmission has traditionally been particularly effective, as the majority of bank loans to households and businesses are fixed to the euro area's most important money market rates—the Euribors.<sup>[2]</sup>

## The crises of recent years have expanded the central bank toolkit

The global financial crisis, the European sovereign debt crisis and, most recently, the economic crisis sparked by the coronavirus pandemic have all led to a more diverse array of instruments for monetary policy implementation. This is largely explained by the disruption of the monetary policy transmission mechanism and interest rates approaching zero.

Before the crises, monetary policy implementation worked impeccably well but relied on three fundamental preconditions. First, the central bank should be able to guide short-term market rates. Second, changes in short-term rates should predictably influence other interest rates. Third, the central bank should be able to set its main policy rate at any level demanded by price stability.<sup>[3]</sup>

As the crises unfolded these conditions slowly fell apart. As banks' demand for liquidity ballooned and the interbank money markets began to falter, the link between money-market rates and the central bank's main policy rate became weaker.

It soon followed that changes in money-market rates were no longer effectively transmitting to the financial markets. For instance, when Lehman Brothers fell into insolvency, the Eurosystem was in a situation where improving the outlook for the economy and inflation would have demanded an easing of financing conditions. However, the spreads between the Euribor rates and their corresponding risk-free rates spiked across all maturities and significantly raised financing costs for both households and businesses.

In response, the Eurosystem extended the average maturity of its refinancing operations and moved from controlling the amount of liquidity in the banking system to setting the price of liquidity more directly. In practice this involved abandoning the provision of central bank credit to banks in competitive auctions in favour of a policy called full allotment.<sup>[4]</sup> Since October 2008 the volume of weekly refinancing operations has been

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1. See Papadia and Välimäki (2011). The central bank's deposit facility rate and marginal lending facility rate set upper and lower bounds for the interest rate corridor. Money market interest rates typically settle within the interest rate corridor.

2. The monetary policy transmission mechanism, all the way from interest rates to financing conditions and expectations, and from these to the economy at large and inflation, is explained in further detail in e.g. Papadia and Välimäki (2018) and ECB (2011).

3. Papadia and Välimäki (2018).

4. For a treatment of the theoretical framework of central bank liquidity auctions, see Central Bank Tenders: Three Essays on Money Market Liquidity Auctions (Välimäki, 2003).

determined by the demand of banks, with their demand being influenced by the price of central bank funding and their sufficiency of collateral. Collateral has received particular attention during the coronavirus pandemic, as it plays a key role in ensuring financial intermediation. Collateral is discussed in detail in Marjaana Hohti and Katri Järinen's article [No credit without collateral](#).

In 2010–2012 the problems spread to the European sovereign bond markets. In the wake of the debt crisis the cost of funding for SMEs soared in the crisis countries. This was largely driven by the divergence of yields on sovereign bonds, which, through their impact on the costs of banks' refinancing, ultimately affected businesses and households. Financing conditions began to tighten in the countries hit hardest by the crisis just as the ECB began to increase its monetary accommodation. This greatly weakened the impact of the monetary policy measures.

Finally, the third condition—that the central bank should be able to set its policy rate at any level consistent with price stability—fell apart as inflation began to fall behind target. In the aftermath of the European sovereign debt crisis and confronted with the threat of a deflationary spiral, the ECB had effectively lowered its key interest rates to, or even below, zero. The room for traditional monetary policy stimulus had almost been exhausted, and at the same time a deflationary spiral had emerged as a significant threat. The case for non-standard monetary policy measures was clear.

### **Non-standard monetary policy measures were adopted as the zero lower bound approached**

In normal times central banks support growth and employment by lowering their main policy rate. This raises price pressures in the economy and over time leads to higher inflation. In recent years, protracted low inflation has sustained the need to ease financing conditions even though interest rates have remained historically low.

However, lowering nominal interest rates into negative territory is difficult and even impossible to achieve on a broad front. When the central bank adopts a negative policy rate, economic agents are incentivised to hold their wealth in cash. However, ever greater quantities of money will not support economic activity if that money is not spent. A large-scale shift into cash would see bank deposits shrink and erode the financial base of the banks. As a result, banks have been loath to impose negative interest rates—at least on household deposits—even though the ECB's main interest rate in the euro area has been slightly negative since June 2014. A negative main interest rate diminishes the net interest income of banks and reduces their incentive to lend, at least without changing margins.<sup>[5]</sup>

Because of these factors, there is an effective lower bound on the central bank's main interest rate, although practice has shown that it lies somewhat below zero.

Since traditional monetary policy stimulus is approaching full capacity and there still remains a need for further stimulus, the Eurosystem has expanded its array of monetary

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5. To mitigate this effect the Eurosystem currently does not remunerate all of a bank's central bank deposits at a negative interest rate. (See [The Eurosystem's two-tier system for remunerating excess liquidity holdings](#)).

policy instruments. In addition to guiding short-term risk-free rates, central banks have begun to target long-term rates and risk premia.

Long-term interest rates are determined by expectations of future short-term rates. During the crises, the ECB has begun to communicate estimates of its own interest rate path (the level of its key interest rates in the immediate years ahead) with *forward guidance*. When the central bank communicates its future interest rate path, this reduces the uncertainty associated with interest rates and lowers their risk premia. This eases financing conditions. Furthermore, committing to low levels of interest rates for an extended period of time also directly lowers long-term interest rates. The ECB has issued forward guidance on its key interest rates since 2013.

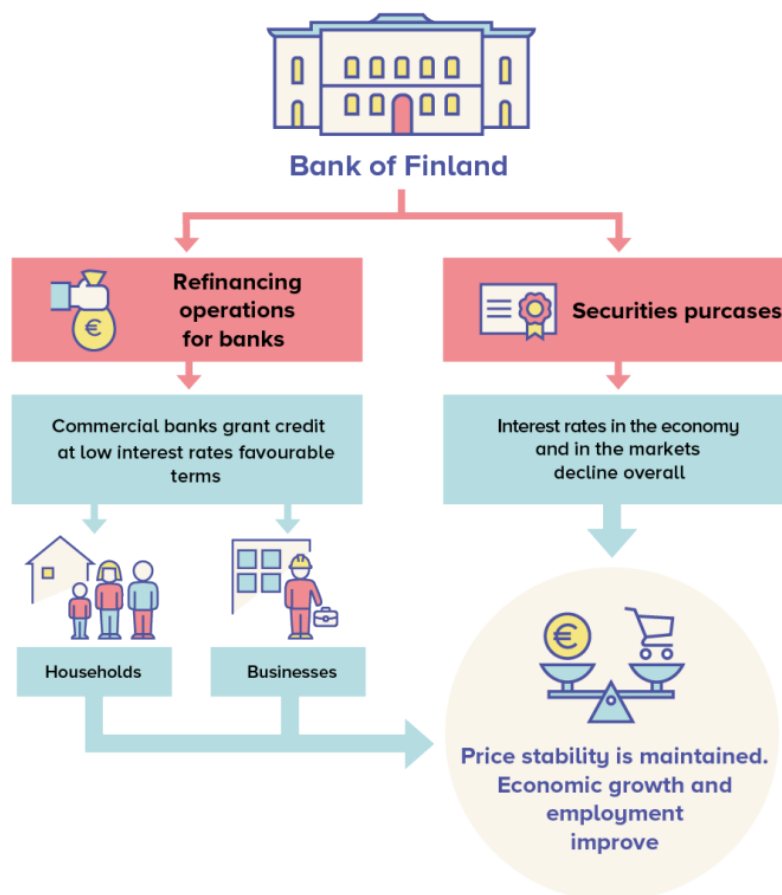
## **Monetary policy measures further expanded in the coronavirus pandemic**

Central banks can influence the prices of securities by conducting large-scale asset purchases. For example, when the price of a bond increases, its yield (interest rate) in the market decreases. The ECB has conducted large-scale monetary policy outright purchases in sovereign bond markets and private sector bonds since 2015. In so doing, the Eurosystem has been able to further ease financing conditions in an environment where inflation prospects have persistently fallen short of the ECB's price stability objective (Chart 3). The most recent large-scale monetary policy purchase programme was launched as the coronavirus pandemic escalated, in March 2020. Under the pandemic emergency purchase programme, the Eurosystem may purchase up to EUR 1,350 billion of European bonds by mid-2021. The purchases will mitigate the coronavirus pandemic's constraining impact on financing conditions ([Implementation of monetary policy purchase programmes at the Bank of Finland](#)).



Chart 3.

## Transmission of asset purchases and refinancing operations



Source: Bank of Finland.

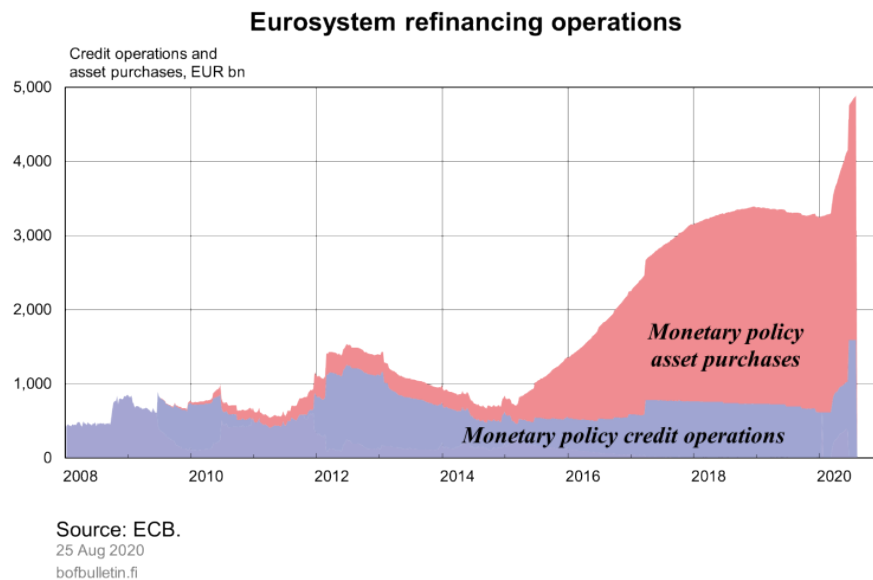
The Eurosystem has also facilitated bank lending by offering banks long-term refinancing (maturities up to four years) at very favourable interest rates. As a condition for this affordable long-term funding, banks have had to boost their lending to the real economy. In response to the economic impact of the coronavirus pandemic, the price of money in the latest series of targeted long-term refinancing operations was for the very first time set below the interest rate at which the ECB remunerates banks for their deposits with the central bank. As a result of the low price, euro area banks were issued over EUR 1,300 billion of refinancing in the June 2020 operation ([Record amount of credit granted to Finnish banks](#)).

Central bank loans are always collateralised, so the borrower bank must always submit securities or other assets to the central bank before it gets the refinancing. When central bank loans run into the hundreds or even thousands of billions of euro, collateral sufficiency may become an increasing constraint on credit growth. The ECB has, in fact, relaxed the eligibility criteria for securities collateral several times during the coronavirus pandemic. In addition, the euro area national central banks have been given the option of

temporarily accepting credit claims as collateral at lighter terms and conditions. The Bank of Finland has decided to adopt such an additional credit claim framework as from 1 September 2020.<sup>[6]</sup>

Large-scale asset purchases and long-term refinancing operations both increase the amount of central bank money held in the euro area banking system. As a consequence, the volume of central bank money exceeding banks' minimum reserve requirements, i.e. the volume of excess liquidity, has increased to about EUR 2,800 billion as of July 2020 (Chart 4). Banks deposit their excess liquidity with the Eurosystem central banks on a daily basis. The most important ECB key interest rate for purposes of guiding market rates is currently the deposit facility rate, which has been negative since 2014. Since markets expect the banking system to remain in excess liquidity and the ECB to hold its deposit facility at a negative rate for many years, the least risky market rates have fallen into negative territory broadly across the euro area yield curve.

Chart 4.



Negative interest rates, large-scale asset purchases and forward guidance have fundamentally transformed monetary policy implementation in the euro area in recent years. This naturally extends to monetary policy implementation at the Bank of Finland. In these circumstances, monitoring financial markets is an important part of preparing monetary-policy decisions and overseeing their implementation. Monitoring the financial markets is especially important during crises, as nascent issues in the economy and the financial system often emerge first on the financial markets ([Information key on tumultuous markets](#)).

Secure and reliable payment, clearing and settlement systems are critical for society at large and for monetary policy implementation in particular. Critical architecture such as these are increasingly built at the level of the Eurosystem. This allows for designs which

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6. See Hohti and Järvinen (2020): [No credit without collateral](#).

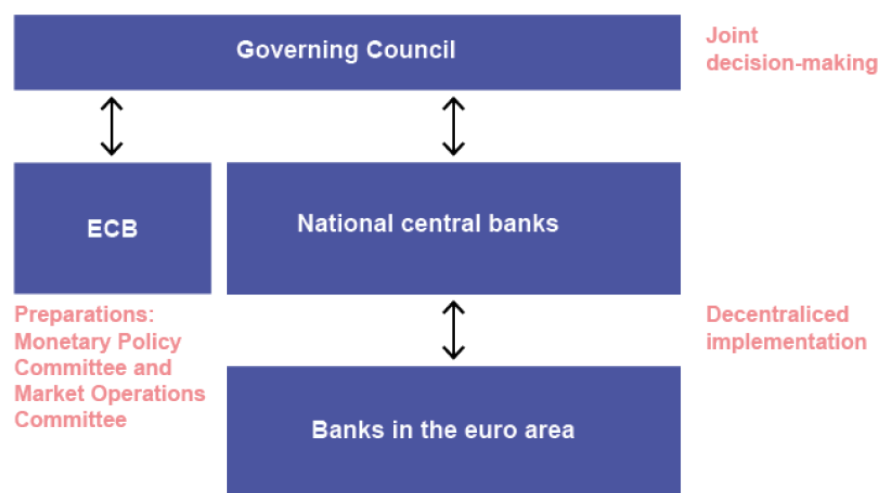
are not only operationally efficient, but cost effective as well. Teemu Peltoniemi's article ([The Bank of Finland maintains and develops the common European financial market infrastructure](#)) looks at the key financial architecture produced by the Eurosystem and the Bank of Finland's role therein.

## Monetary policy decision-making in the euro area

In the euro area, monetary policy decisions are taken by the Governing Council of the European Central Bank. This comprises all the members of the Executive Board of the ECB and governors of the euro area national central banks. The Governor of the Bank of Finland thus has an important role in setting financing conditions for the whole of Europe.

The Governing Council's decision-making is supported by committees consisting of experts from all the Eurosystem's national central banks. The most important committees for the preparation and implementation of monetary policy are the Monetary Policy Committee (MPC) and the Market Operations Committee (MOC). The Bank of Finland's experts enjoy robust channels for influencing euro area monetary policy as it is being prepared. The Bank's success here is essentially determined by the ability of its experts to produce high-quality research and timely analyses, and by their ability to network with their international colleagues.

### The roles of different entities in monetary policy decision-making in the euro area



Source: Bank of Finland.

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## As investor, the central bank responds to the changing operating environment and, where necessary, to emergency situations

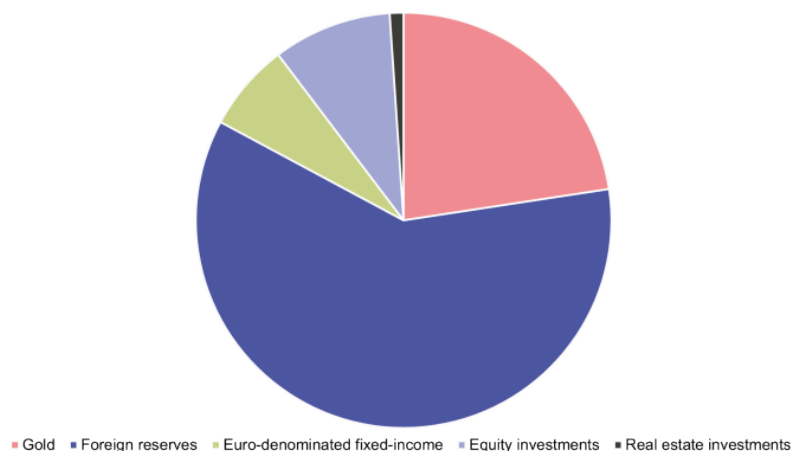
As part of the Eurosystem the Bank of Finland's balance sheet has certain special characteristics. ([Balance sheet risks in monetary policy implementation](#)). Some items on the balance sheet are directly related to monetary policy implementation, which is decided by the ECB Governing Council. Other items, such as foreign reserves and net investment assets, are more independently managed by the Bank of Finland in a manner that is consistent with the Governing Council's framework. The Eurosystem national central banks are financially independent entities which, in addition to conducting monetary policy operations related to their main objective of price stability, have several domestic tasks.

In addition to receivables that are line items of monetary policy operations, the Bank of Finland's balance sheet also includes investment assets. The Governing Council sets the rules and limits on national central banks' holdings of financial assets ([Agreement on Net Financial Assets](#)). The Agreement on Net Financial Assets ensures that each national central bank manages its financial assets in a way that is consistent with the Eurosystem's monetary policy objectives. For example, allowing the investments of national central banks to grow before the financial crisis (and before the formation of outright monetary policy portfolios) mitigated the need to excessively scale up refinancing operations.

At the end of June 2020 the Bank of Finland's investment holdings, i.e. holdings of net financial assets, stood at around EUR 11 billion. They comprised gold and foreign reserves, euro-denominated fixed investment assets and equity and real-estate investments.

Chart 5.

**Decomposition of Bank of Finland's financial assets 30 June 2020,  
EUR 11 bn**



Source: Bank of Finland.  
20 Aug 2020  
bofbulletin.fi

The Bank of Finland's foreign reserves<sup>[7]</sup> are set at a level necessary for conducting central bank tasks. The level of foreign reserves is mainly based on contingency factors: the Eurosystem national central banks have committed to transferring part of their foreign reserves over to the ECB for currency intervention purposes if necessary, and, on the other hand, the Bank of Finland holds foreign reserves to maintain Finland's external solvency in crisis situations. The Bank of Finland is also responsible for investing part of the ECB's foreign reserves. These reserves are needed for possible interventions by the Eurosystem.

The Bank of Finland's foreign reserve holdings stood at EUR 6.6 billion at the end of June, and the market value of its gold reserves stood at EUR 2.5 billion. Central bank foreign reserves are typically invested in high-grade bonds that carry low interest-rate risk and high liquidity. The majority of the Bank's foreign reserves are US dollar-denominated. The foreign reserves also include bonds denominated in pound sterling and Japanese yen. The Bank of Finland's currency risk has also been slightly diversified into Chinese yuan-denominated bonds through Special Drawing Rights allocated by the IMF. The reserves are invested in government and government-related bonds, covered bonds and corporate bonds.

7. Does not include share of ECB foreign reserves.



## Management of the ECB's foreign reserves

When the euro was adopted, the Eurosystem national central banks transferred shares of their foreign reserve holdings over to the ECB in proportion to their capital key. Today the ECB's foreign reserves are invested chiefly in sovereign bonds denominated in US dollars, Japanese yen and Chinese renminbi. The Bank of Finland manages part of the ECB's foreign reserves. These reserves are required for potential currency interventions by the Eurosystem, so safety and liquidity are paramount in their management.

Decisions concerning the ECB's foreign reserves are jointly taken at the level of the Eurosystem, but the management of the reserves has been decentralised among the national central banks. However, this decentralised model still sees benefits from specialisation and rationalisation by merging portfolios. For example, the Bank of Finland and Bank of Estonia jointly manage their foreign reserve shares such that all market operations are conducted by the Bank of Finland. The ECB is responsible for the clearing and settlement of transactions related to the Bank of Finland's foreign reserve management, which brings further efficiency. It is clear that there are economies of scale to be had by collaborating at the level of the Eurosystem, for example in IT and systems development projects that are needed for the management of foreign reserves. The benefits of the decentralised model include the discovery and exchange of information that is only possible in a large network and, on the other hand, being able to influence big-picture decision-making directly and transparently.

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The Bank of Finland invests a share of its financial assets in international equity and property markets. These long-term investments diversify risk on the Bank's balance sheet and improve the balance sheet's characteristics in different market situations. Part of the long-term investments are for the pension provision of Bank of Finland employees. The market value of the long-term investments at the end of June 2020 was about EUR 1 billion. The investments are carried out by external portfolio managers and funds.

The euro area national central banks have the ability to deploy domestic support measures in economic crises. For example, in mid-March 2020 there were signs on the Finnish commercial paper market suggesting that corporate funding was about to run dry: the usual investors on this market were either unwilling or unable to reinvest their maturing securities, and were instead holding their positions in cash. The Bank of Finland quickly acted on the situation by investing – within the scope of its own risk management framework – on the commercial paper market within a few days of liquidity disappearing from the market. The Bank of Finland's presence on the commercial paper market directly supported the provision of short-term funding for businesses that fulfilled the Bank of Finland's risk management criteria, but also temporarily freed up the balance sheets of banks to lend to other Finnish businesses as well ([Suomen Pankki](#)

[käynnisti toimintansa yritysmarkkinoilla, only in Finnish](#)).

The low interest rate environment creates challenges for the short-term profit outlook for central bank investment activities as well. Low interest rates, flat yield curves, and miniscule credit risk premia all make for an environment where the marginal return on investment risk is estimated to be low in historical terms. In periods of low interest rates, private-sector investors typically shift their asset allocations towards riskier and less-liquid assets in the search for yield. The proportion of equity and property investments in the Bank of Finland's asset allocation has similarly increased in recent years, but only moderately so. When looked at from the premise of central bank tasks, the need for liquidity and the riskiness of individual investments necessary rule out certain assets, such as unlisted shares. The same applies to unlisted debt instruments and structured credit risk.



## The special characteristics of central bank asset management

The objectives of the Bank of Finland's asset management are security, liquidity and return. It is not a coincidence that the objectives are in this particular order, as central banks are careful investors. The higher-than-average liquidity requirement for investments is based on the tasks of the central bank, the role of the foreign reserves and the ability of the central bank to respond to potential crises on financial markets or to emergencies. Because the Bank of Finland implements monetary policy, as an investor it is distinct from, say, a typical institutional investor.

Within the constraints of security and liquidity, the Bank of Finland's asset management aims for the best possible return. One reason for this is to ensure that the Bank's risk buffers maintain their real value. The size of the risk buffers has to keep up with economic activity and inflation but also with changes in the financial sector.

At this point it is worth emphasising the difference between a central bank and sovereign wealth fund or government investment fund. The portfolios of sovereign wealth funds are typically far more aggressive with respect to risk and return and have little to no liquidity requirements. Their purpose is to store and transfer wealth across generations that has often been generated from income flows derived from natural resources. As for government investment funds, the goals of their investment activities may be geared towards industrial or regional policy, for example. A central bank's tolerance for risk derives from its stipulated central bank duties. The chief objective for the management of the gold and foreign reserves and long-term investments is to safeguard the stability and functionality of the financial system under all possible circumstances. Strengthening the Bank of Finland's balance sheet and risk buffers over the long-term serves this objective and will ensure that the bank remains operational in crises situations long into the future as well.

Investing is done over the long term. It is important that the risk exposure from investments is at a level where the central bank is able to tolerate even strong bouts of market volatility. This is a prerequisite for being able to conduct countercyclical policy with respect to market movements, instead of the central bank reinforcing market swings with its own investment activities. The importance of being able to bear risk is emphasised in crisis situations, precisely when private sector entities are forced to reduce their risk either due to regulation or for reasons of risk management.

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Risk transparency, or the ability to identify and quantify the risks of investment assets on



an ongoing basis, is important in central bank asset management. In a low interest-rate environment and from the perspective of a central bank, holding one's asset allocation (by asset class) unchanged but expanding one's investments geographically or by sector are options for further diversifying an investment portfolio. Factor-based investment strategies and thematic investing can also be ways of improving a portfolio's risk-return ratio. One of the biggest trends in investing in recent years is ESG or sustainable investment ([The Bank of Finland manages its financial assets sustainability](#)). Despite the low interest rate environment the liquidity and transparency of assets are still important criteria when considering asset allocation.

Monetary policy and especially its implementation have undergone a series of revolutions since the onset of the financial crisis in 2008. Navigating uncharted waters requires a steady hand, but as the efficacy of old operating models has waned, we have had to discover new instruments for monetary policy implementation to achieve the desired policy effects. The heterogeneous experiences of the euro area national central banks from before Monetary Union have been an asset in the innovation work for monetary policy. However, even more critical for adapting to the new environment are timely situational pictures and high-quality research on and analysis of monetary policy implementation. It is here that the Bank of Finland has distinguished itself during the crises of recent years.

## Tags

[monetary policy](#), [market operations](#), [Eurosystem](#), [coronavirus pandemic](#), [corona](#), [Bank of Finland](#)

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# Balance sheet risks in monetary policy implementation

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY

Monetary policy implementation in recent years has largely centred on asset purchase programmes and long-term refinancing operations. As a result, the balance sheets of the Eurosystem national central banks have grown significantly, while balance sheet risks related to monetary policy implementation have increased.



Risks incurred by private sector entities can move into the balance sheets of the public sector by various means, especially during financial crises which threaten to destabilise the financial markets. Because central bank balance sheets have grown, it is worth examining which share of the risks related to monetary policy implementation are carried by the Bank of Finland in its own balance sheet, and how these risks are mitigated and managed.

Large-scale asset purchases are subject to interest rate risk and credit risk, while refinancing operations are exposed to the risk of counterparty default. Risks related to asset purchases are managed by limiting the financial instruments eligible for purchase and by diversifying risk with issuer and issue share limits. As for risks related to refinancing operations, central bank loans to counterparty banks are always collateralised. Collateral eligibility criteria and risk management procedures have become important factors in the transmission of monetary policy during the coronavirus pandemic. In addition to pledging collateral for central bank funding, all counterparties to the Eurosystem's monetary policy must satisfy general eligibility criteria.

*Public sector purchase programmes* are implemented nationally, i.e. each national central bank carries out the majority of purchases of bonds issued by their respective sovereign and general government. The national central banks are individually

responsible for bearing potential losses realised in these purchases. At the end of July 2020 the Bank of Finland held about EUR 30 billion of Finnish government and government-related bonds purchased under the public sector purchase programme. This comprises about one-quarter of Finland's national debt.

Under *private sector purchase programmes* potentially realised risks are shared by the Eurosystem. For example, the Eurosystem's corporate sector purchase programme stood at EUR 220 billion at the end of June 2020.[1] If an issuer were to default on a bond, the share of the credit loss to be absorbed by the Bank of Finland would be 1.84%, as determined by Finland's capital key, which is based on the relative size of the economy and population.

The Eurosystem takes advantage of specialisation in carrying out its corporate sector programmes. For example, the Bank of Finland has long experience in investing in the corporate bond market and is one of six euro area national central banks tasked with purchasing corporate bonds on behalf of the entire Eurosystem.

If a *counterparty defaulted on a monetary policy credit operation*, the Bank of Finland could realise its loan collateral. It follows that realising losses on a financing operation not only requires that the counterparty bank default but requires insufficient collateral as well. Risks related to central bank credit operations are shared by the Eurosystem as a whole, with the exception of loans under national additional credit claim frameworks. The first line of defence in monetary policy risk management thus consists of: the eligibility analysis of financial instruments that are to be purchased under monetary policy purchase programmes and the limit framework; the eligibility assessment of monetary policy counterparties; and the eligibility, adequacy and valuation analysis of collateral for monetary policy credit operations.

Exchange rate fluctuations expose the Bank of Finland to exchange rate risk. To mitigate this, the Bank of Finland balance sheet includes revaluation accounts and reserves, which rise and fall with exchange rate movements.

## Tags

[monetary policy](#), [corona](#), [central banks](#), [balance sheet risk](#), [balance sheet](#)

# Implementation of monetary policy purchase programmes at the Bank of Finland

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY



Matti Ilmanen  
Principal Portfolio Manager

The expanded asset purchase programme was introduced in 2015, when Eurosystem interest rates began to reach their lowest threshold. Bond purchase programmes have become one of the most significant approaches to monetary policy. This article explains how the Bank of Finland itself implements monetary policy purchase programmes within the Eurosystem.



## Purchase programmes within the Eurosystem are decentralised

The European Central Bank launched its expanded asset purchase programme (EAPP) in 2015, with the aim of fulfilling its price stability mandate and addressing the risks of too prolonged a period of low inflation. In spring 2020, the economy was hit hard by the coronavirus pandemic, and the ECB took new, dramatic steps to stabilise both the economy and the financial markets ([blog: ECB's monetary policy measures during the coronavirus pandemic](#)). The Bank of Finland participates in the implementation of monetary policy purchase programmes within the Eurosystem. Purchases of public or private sector bonds are made under the various programmes. On 31 July 2020, the

balance sheet value of securities acquired for monetary policy purposes stood at EUR 56.9 billion.

The Governing Council of the European Central Bank makes decisions on the purchase programmes, the technical details being finalised by various committees within the Eurosystem, on which the Bank of Finland is also represented. The ECB itself has responsibility for coordinating the purchases. The persons in Frankfurt involved in carrying out these tasks include Bank of Finland personnel. The purchase programmes are, however, mainly implemented by the national central banks.<sup>[1]</sup> At the Bank of Finland, four portfolio managers are involved in such purchases.

Besides portfolio management, the Bank of Finland is also engaged in [securities payment and settlement](#), and, before any purchase goes ahead, it conducts [an analysis of the eligibility of the issuer and the bond in question](#). This is a way to ensure that the bond meets the criteria for the Eurosystem purchase programme. Furthermore, the bonds purchased for the Bank of Finland's balance sheet and their issuers are monitored in order to anticipate risk.

## Net purchases were recommenced when the outlook for inflation weakened

The purchase programmes allow the Eurosystem to boost [liquidity](#) in the financial system and lower interest rates on the bond markets. This eases the cost burden for companies, banks, governments and, ultimately, for households too. In 2018, the outlook for inflation in the euro area showed a favourable trend and expansion of the monetary policy investment portfolio, i.e. net purchases, was terminated. The purchase programmes then moved to a reinvestment phase for the bonds already bought, where the purchases only covered the value of maturing bonds. When in autumn 2019 the economy flagged, net purchases were recommenced to a value of EUR 20 billion per month.

In March 2020, the coronavirus pandemic seriously harmed the economy and tightened financing conditions. When the outlook for inflation grew even worse, the ECB decided to increase the amount for net purchases by EUR 120 billion by the end of the year. When the crisis deepened at the end of March, a new pandemic emergency purchase programme (PEPP) was launched, with an initial envelope of EUR 750 billion until the end of the year. Later it was decided that the programme would be extended until the end of June 2021 and that the maximum amount for purchases would be raised by EUR 600 billion to EUR 1,350 billion.

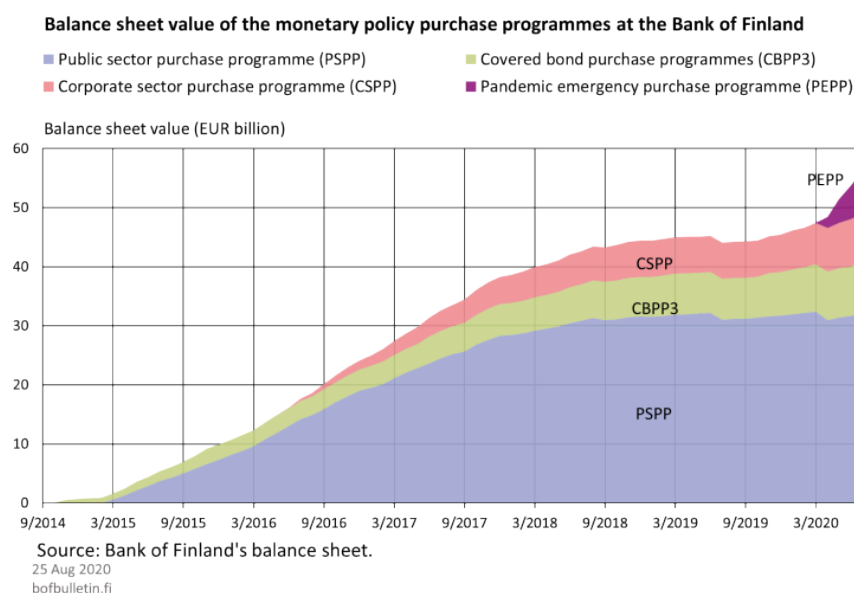
The chart below shows the reinvestment phase covering the period 2018–19 on the Bank of Finland's balance sheet. Clearly, the balance sheet value of securities barely grew at all. However, the net purchase amounts for the PEPP purchase programme launched at the end of March 2020 have shown a marked upward trend each month, and holdings by the end of July stood at EUR 7.3 billion on the Bank's balance sheet.

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1. The ECB accounts for 10% and the national central banks 90% of the purchases in the purchase programmes.



Chart 1.



## Finnish Government bonds worth tens of millions of euros are being bought each day

Finnish Government bonds account for most of the holdings of EUR 32.2 billion in the public sector purchase programme. The programme also includes bonds issued by MuniFin, Finnvera and the Employment Fund. Central banks in the Eurosystem may not finance the public sector, so all the purchases are made on the secondary markets.

The sellers are mainly primary dealer banks for bonds issued by the State Treasury. There are 14 of these. In the current year, purchases were conducted with 24 banks, so other banks are also active on this market. It is important to have a large number of counterparties in order to obtain the best price and be able to monitor market liquidity.

The Bank of Finland endeavours to purchase Finnish public sector bonds as neutrally as possible along the yield curve, although purchases below the ECB's overnight deposit rate are only made when strictly necessary. A neutral, prudent and steady approach to purchasing promotes smooth market operations. The purchases tend to be of those bonds available on the market at the time, where possible avoiding those in short supply. The smooth functioning of the bond markets is also enhanced by lending investors bonds held under the purchase programmes.

Because of the current pandemic, the state's need for financing has increased. The same is true of other countries in the euro area, and the PEPP purchase programme has kept financing conditions accommodative, despite the additional availability of funds. The coronavirus crisis has also meant that the Eurosystem has eased the restrictions on this new purchasing programme, which has made it easier to implement. This allows purchases to be conducted where needed, to ensure that the accommodative monetary policy proceeds effectively.

## Banks receive affordable financing against mortgage collateral

The monetary policy purchases of bank-issued bonds focus on covered bonds. The collateral used for these in Finland is typically mortgages. In its credit operations, the Eurosystem does not provide the banking sector with financing without a guarantee, and so no purchases are made of unsecured bank bonds. The Bank of Finland only buys covered bonds issued by Finnish banks. OP Financial Group and Nordea are the largest mortgage lenders, accounting for around 70% of mortgage finance and, hence, a large number of the securities purchased.

The Bank of Finland also purchases covered bonds on the primary markets. Finnish banks issue an average of seven covered bonds totalling EUR 250–1,000 million every year. A significant number of the covered bonds under the purchase programme are acquired on the primary markets.

The ECB also provides banks with financing via other operations, of which the most important at present is the [TLTRO III programme](#). The availability of cheap central bank financing has made banks less interested in issuing covered bonds. This has caused liquidity to weaken in recent times on the covered bond markets, and new issuances have become something of a rarity.

## The Bank of Finland specialises in the purchase of corporate bonds

The Bank of Finland is one of six national central banks within the Eurosystem to conduct corporate sector monetary policy purchases on behalf of the Eurosystem as a whole. It has long experience of corporate bonds in its own investing activities, and this expertise has now been explored in the context of the Eurosystem. The Bank of Finland buys corporate bonds on the Finnish, Irish and Austrian markets and those of the Baltic States. It works closely with the central banks of these countries, and purchases are made on both the primary and secondary markets.

Under the corporate sector purchase programme, the Bank of Finland holds corporate bonds issued by 44 companies. Every year the Bank has participated in between five and ten issues on the primary markets, although it has mainly achieved its purchase goals with daily secondary market purchases.

Corporate bonds have been purchased from such Finnish companies as Elisa, Fortum, Kojamo, Nokia, Sampo, Stora Enso and Teollisuuden Voima. The companies in Ireland from which the Bank has purchased bonds include ESB Finance, Fresenius, Kerry and Ryanair. In Austria, bonds have been acquired from OMV and Telekom Austria, and, among the Baltic States, Eesti Energia, for example.

There are risks attached to holdings under the purchase programmes. Some, such as those associated with Finnish public sector bonds, are the responsibility of each national central bank. However, the risks with corporate and covered bonds are shared across the Eurosystem. For example, if a single company were to incur a loss of a EUR 1 billion in

respect of the Eurosystem, the Bank of Finland would record a loss of EUR 18 million based on the capital key. As a counterweight to the risks, though, the returns on holdings are also shared, except for public sector holdings.

## This year the Eurosystem also purchased commercial papers

The pandemic that broke out in spring 2020 hampered financing conditions, and it was hard for companies to acquire market funding. Commercial papers with an initial maturity of less than one year were rapidly maturing, and their refinancing was a cause for concern. At the end of March, the Eurosystem began to purchase commercial papers under the financial pandemic emergency purchase programme (PEPP), which calmed the situation.

To be eligible for the monetary policy purchase programmes, commercial papers must fulfil the Eurosystem's criteria for collateral. The main criteria are adequate creditworthiness, a stock exchange listing and book-entry form. Finland has a viable commercial paper market that nevertheless fails to meet these criteria. The Bank of Finland operates on this market within the framework of its own investment activities.<sup>[2]</sup>

All the same, for Finnish companies, the commercial papers included in the ECB's purchase programme are still an opportunity to access a greater supply of funding. Companies with a good credit rating can establish an ECP (Eurocommercial Paper) issuance programme, under which they can issue commercial papers that are eligible for the purchase programmes. Alternatively, Finland's domestic market could also satisfy the Eurosystem's criteria for collateral as far as companies with a high credit rating are concerned, provided the issue is in book-entry form and listed on the stock market.

### Tags

[commercial papers](#), [corona](#), [coronavirus](#), [government debp](#), [monetary policy](#)

### Authors



**Matti Ilmanen**  
*Principal Portfolio Manager*

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2. More can be read about buying Finnish commercial papers on Jarno Ilves's blog (in Finnish): Suomen Pankki käynnisti toimintansa yrittödistusmarkkinoilla (*The Bank of Finland enters the commercial paper market*), at <https://www.eurojatalous.fi/fi/2020/1/suomen-pankki-kaynnisti-toimintansa-yrittödistusmarkkinoilla/>.



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# Record amount of credit granted to Finnish banks

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY



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Market Analyst

Since its inception the Eurosystem has implemented its monetary policy through credit operations conducted as tenders. In these operations, the Eurosystem grants credit against collateral to euro area banks in order to pursue its monetary policy objectives. Finnish banks and banks with branches in Finland can apply for funding from the Bank of Finland, where the tenders are carried out in practice. During the coronavirus crisis, credit operations have helped to facilitate bank lending to the private sector despite the crisis. In fact, Finnish banks' take-up of funding from these operations has been record-high.



## Credit operations are an important part of the ECB's response to the coronavirus crisis

Current credit operations by the Eurosystem can be divided into regular and non-standard operations. Credit operations here refer to the Eurosystem's liquidity-providing market operations<sup>[1]</sup>. Regular operations consist of one-week main refinancing

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1. In addition to the credit operations, the ECB's market operations toolkit includes, for example, liquidity-absorbing operations and securities purchases. For the moment, there are no open liquidity-absorbing operations. The last one was conducted in summer 2014. Securities purchases, or purchase programmes, are described in the

operations (MROs) and three-month longer-term refinancing operations (LTROs), under which euro area banks may apply for money at the interest rate of the main refinancing operations.

Other operations are referred to as non-standard operations. Non-standard operations conducted in 2020 include the third series of targeted longer-term refinancing operations (TLTRO III), bridge LTROs, longer-term pandemic refinancing operations (PELTROs) and one-week and 12-week US dollar liquidity-providing operations.

In March, the coronavirus pandemic led to a historically rapid deterioration of financing conditions, to which the Governing Council of the ECB responded by further easing monetary policy and securing euro area banks' access to euro and dollar financing. The ECB's decisions were reflected in credit operations both as eased and more flexible terms for existing operations and as entirely new operations.

Out of the euro-denominated operations, the conditions of TLTRO III operations launched in 2019 were set at their most favourable level ever, in order to provide banks with the best possible conditions to support private sector lending despite the crisis. The quarterly TLTRO III operations have a maturity of three years with an interest rate that can be as low as  $-1\%$  over the period 24 June 2020 – 23 June 2021 and an average ECB deposit facility rate (currently  $-0.5\%$ ) outside this period. In order to achieve the most favourable interest rate, banks must not reduce the aggregate amount of their private sector lending (excluding mortgages) between 1 March 2020 and 31 March 2021.

In addition to easing the conditions of TLTRO III, the Governing Council also decided to launch bridge longer-term refinancing operations and pandemic-related longer-term refinancing operations (PELTROs), which are entirely new euro-denominated operations. The bridge LTROs provided banks an opportunity to apply for loans on a weekly basis between 16 March 2020 and 8 June 2020 at an average ECB deposit facility interest rate of  $-0.5\%$ . All bridge LTROs matured on 24 June 2020, which was also the settlement day of the fourth operation of TLTRO III. In practice, the bridge operations ensured the availability of very affordable central bank euro financing in the midst of the crisis, up to the fourth TLTRO III operation.

The PELTROs were first launched in May, and under them banks can apply for loans on a monthly basis until December, which mature from July to September 2021. The PELTROs are conducted at an interest rate of 25 basis points below the average rate applied on the Eurosystem's main refinancing operations over the life of the respective PELTRO. The PELTROs give banks access to affordable financing without conditions similar to TLTRO III loans.

In addition to euro-denominated loans, the Eurosystem also offers euro area banks dollar-denominated loans. The Eurosystem acquires dollars for these operations from the Federal Reserve System of the United States (Fed) through a foreign exchange swap arrangement. The coronavirus crisis curbed access to dollar financing globally as market participants hoarded USD liquidity and did not lend it further. The availability of dollar financing was supported by lowering the price of the Eurosystem's dollar operations, by

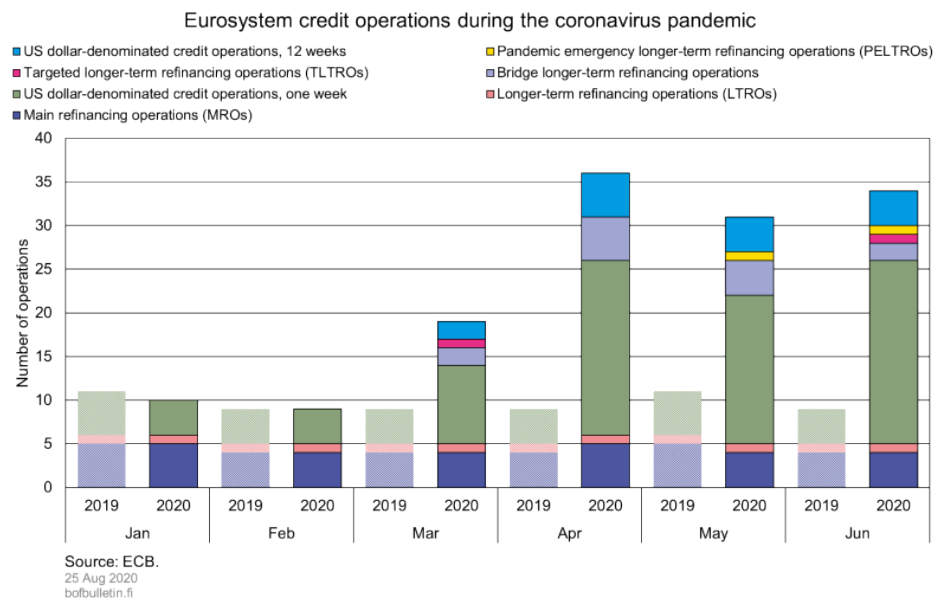
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second feature article of the Bank of Finland Bulletin.

increasing the frequency of these operations and by also offering 12-week operations in addition to the one-week operations.

Chart 1 illustrates the change in Eurosystem credit operations brought about by the turmoil in the financial markets caused by the coronavirus pandemic. During the first half of 2020, the Eurosystem offered up to 139 credit operations to banks, compared with 58 operations during the same period in 2019. The single biggest cause for the increase was the dollar operations that were conducted on a daily basis between 23 March and 30 June. In addition, the operations were diversified, mainly as a result of the entirely new operations planned for the coronavirus crisis, i.e. the bridge longer-term refinancing operations and PELTROs.

Chart 1.



The coronavirus crisis was also clearly reflected as higher loan volumes in credit operations (Table 1). In the first half of this year, euro area banks borrowed a total of EUR 1,854 billion in euro loans and a total of USD 265 billion in US dollar-denominated loans. In the first half of 2019, the corresponding figures were EUR 162 billion and USD 3 billion. The majority of withdrawn and still open euro loans are TLTRO III loans due to their historically favourable borrowing conditions. The banks clearly sought financing from the Eurosystem's refinancing operations more strongly than before. However, the growing demand reflects not only the deterioration of the financial conditions due to the coronavirus pandemic, but also the more diverse and favourable credit operations.

Table 1.

Loans to Eurosystem banks under credit operations, EUR and USD billion		
	2020H1	2019H1
Main refinancing operations (MROs)	21	156
Longer-term refinancing operations (LTROs)	5	7
Bridge LTROs	389	–
Pandemic emergency longer-term refinancing operations (PELTROs)	16	–
Targeted longer-term refinancing operations (TLTRO III)	1,423	–
<b>Total loans in EUR</b>	<b>1,854</b>	<b>162</b>
US dollar-denominated credit operations, 7 days	115	3
US dollar-denominated credit operations, 12 weeks	150	–
<b>Total loans in USD</b>	<b>265</b>	<b>3</b>
Source: European Central Bank.		

This spring, Finnish banks and banks operating in Finland also participated clearly more than usual in credit operations by the Bank of Finland. In fact, market participants from Finland participated in all different types of euro and US dollar operations conducted in 2020. During the first half of the year, more than ten Finnish counterparties applied for euro funding totalling over EUR 18 billion and for dollar funding for a total of USD 4 billion. Just as in the euro area, most of the loans granted by the Bank of Finland were TLTRO III loans. In June, Finnish market participants borrowed close to a total of EUR 17 billion under these operations. At the end of July, Finnish banks' central bank funding amounted to a total of just over EUR 20 billion.

## The Bank of Finland grants credit to Finnish banks

Eligible counterparties to the Eurosystem's monetary policy operations are euro area credit institutions (banks) and euro area branches of non-euro area credit institutions. Counterparties to the monetary policy of the Bank of Finland, on the other hand, consist of Finnish banks and branches of Nordic banks operating in Finland. The Bank of Finland currently has 16 monetary policy counterparties, while there are approximately 2,000 counterparty banks throughout the Eurosystem.

To act as a counterparty to Eurosystem credit operations, a bank must be financially sound and be subject to minimum reserve requirements<sup>[2]</sup> (i.e. hold a minimum reserve

with the central bank) and to the harmonised financial supervision within the EU. By requiring that counterparties be financially sound, the Eurosystem is protected against the counterparty risk to the bank, i.e. the risk that the bank would go bankrupt and would not be able to repay its loans. The financial soundness of a given counterparty is assessed against a set of indicators common to the Eurosystem and the fulfilment of the criteria is monitored on an ongoing basis.

At the Bank of Finland, counterparty banks are closely monitored in their roles as monetary policy counterparties as well as securities issuers. Any changes in the ownership structure will also have an impact on the counterparty perspective.

In order to participate in credit operations, a bank needs to be approved in advance as a monetary policy counterparty to the Bank of Finland. The bank must have an account with the Bank of Finland for applying for credit, have access to the tender system of the Bank of Finland, and have arrangements for providing collateral to the Bank of Finland.

Credit application takes place by participating in the tender operations via the Bank of Finland's tender system. The auction begins with a tender announcement from the ECB, which the Bank of Finland forwards to Finnish banks. Following the tender announcement banks may submit bids to the auction. The Bank of Finland supervises the submission of bids and may assist banks in the submission process. After the closing time for the submission of bids, the Bank of Finland will close the auction and forward the bids submitted by the banks to the ECB. Thereafter, the ECB calculates the allotment<sup>[3]</sup> of the auction and submits it to the Bank of Finland. Finally, the ECB publishes the public information of the allotment decision.

After the tender procedure, the Bank of Finland grants monetary policy credit to the counterparty bank against collateral. The bank will repay the capital with interest when the loan matures. After that, the Bank of Finland will release the collateral back to the credit institution.

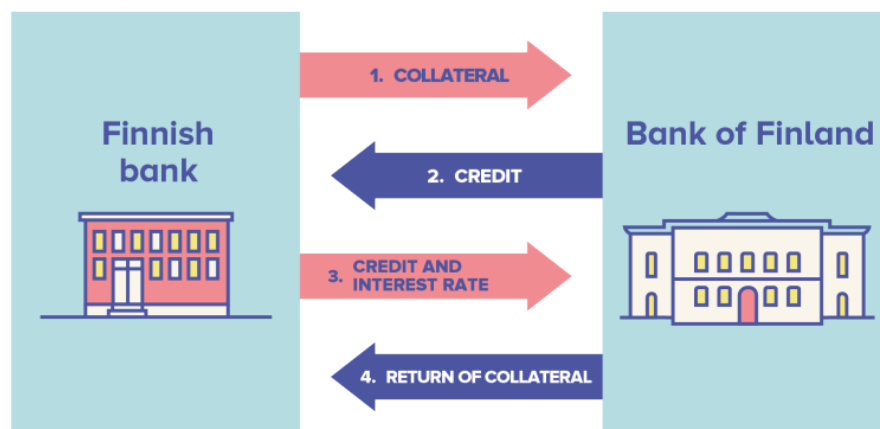
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2. All banks located in the euro area are subject to the minimum reserve requirements. In order to fulfil this requirement, they must deposit a certain amount of their assets with the national central bank of the country in which they are located. A bank's minimum reserve requirement is set for six-week periods called maintenance periods. The level of reserves is calculated on the basis of the bank's balance sheet before the start of the maintenance period.

3. Since the financial crisis, the Eurosystem has applied a fixed-rate full allotment policy on all monetary policy tender operations, where the bids submitted by banks are fully accepted at a pre-determined interest rate. Thus, the practice no longer resembles an auction in the traditional sense, as banks do not compete against each other for central bank credit like they did before the financial crisis.

Chart 2.

### Granting credit to banks



Source: Bank of Finland.

In addition to running the tender procedure and granting credit, the Bank of Finland also advises Finnish banks on issues related to credit operations and informs banks about new credit operations and changes in old credit operations.

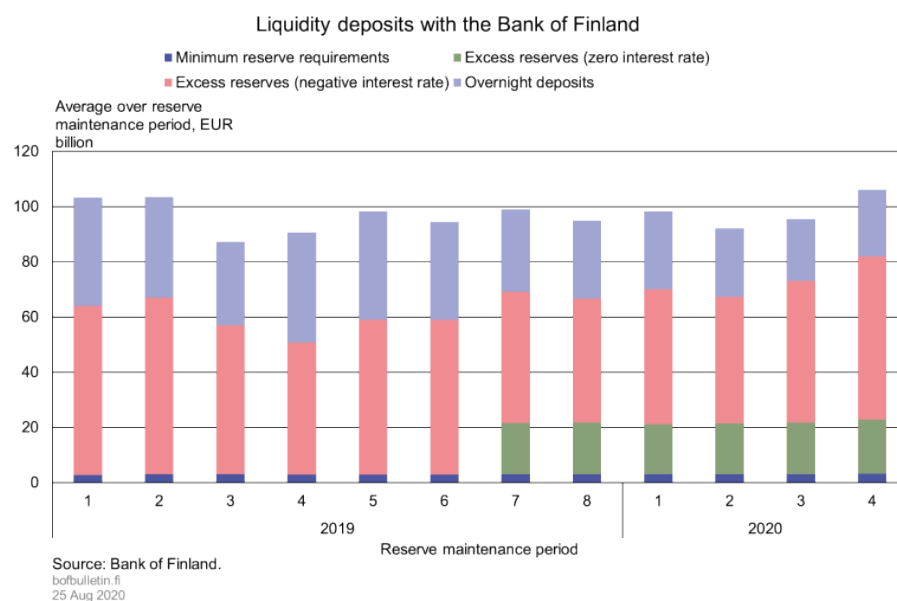
The Bank of Finland's experts participate in policy preparation related to credit operations in working groups and committees within the Eurosystem, where the conditions of the operations are planned. Other parties in the Bank of Finland also participate in the policy preparation of the credit operations, which are ultimately decided by the Governing Council of the ECB. The Bank of Finland thus influences the planning of credit operations in many stages and ultimately implements them in Finland.

## Finnish banks hold a central bank account with the Bank of Finland

The central bank deposits of Finnish banks in the Bank of Finland remained very stable and averaged around EUR 95.3 billion over the first three maintenance periods of 2020 (Chart 3). However, in the fourth maintenance period, deposits increased to around EUR 106.1 billion, mainly as a result of the credit operations increased by the TLTRO III loans. Finnish market participants have made almost full use of the possibility offered by the two-tier system for deposits free from negative interest rates<sup>[4]</sup>. The system was introduced in the seventh maintenance period of 2019.

4. Read more about the two-tier system in Kristian Tötterman's article: The Eurosystem's two-tier system for remunerating excess liquidity holdings <https://www.bofbulletin.fi/en/2019/4/the-eurosystem-s-two-tier-system-for-remunerating-excess-liquidity-holdings/>

Chart 3.



The Bank of Finland is also responsible for tasks related the Eurosystem's liquidity management, such as reporting to the ECB on the use of central bank deposits and standing facilities by clients of the Bank of Finland. Liquidity management also includes monitoring the balance sheet of the Bank of Finland and forecasting the development of the so-called autonomous factors for the ECB. The autonomous factor forecast aims to anticipate changes in items in the central bank's balance sheet that are beyond the central bank's control, but which influence the amount of central bank money in the banking system. Such items include the demand for banknotes and central government deposits with the central bank. The aim is to anticipate changes as they may affect short-term market rates. However, the increase in central bank money has reduced the importance of the forecast over the past few years.

Central bank money arising from Eurosystem securities purchases and credit operations with commercial banks is always deposited back with the central bank. When, for example, the Bank of Finland purchases a security from a commercial bank as part of a monetary policy purchase programme, it creates new central bank money to purchase the security. The central bank money in question will end up as the commercial bank's deposit with one of the Eurosystem's central banks. When a client of the commercial bank in question then transfers funds or makes payments to another commercial bank, the central bank money is transferred to the account of the receiving commercial bank with one of the Eurosystem's central banks. In a credit operation, the central bank transfers the credit to the applying commercial bank's central bank account. The central bank money created by the Eurosystem thus circulates in a closed system between the central bank accounts of different commercial banks. Central bank money is removed from this closed system when the security matures or the credit operation is repaid.

## Tags

[monetary policy](#), [financial markets](#), [corona](#)



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# No credit without collateral

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY



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In order for banks to obtain credit from the central bank and payments to be transmitted smoothly, adequate collateral is required. Collateral protects the central bank against the credit risk associated with the counterparty. Central bank collateral policy is aimed at supporting the objectives of monetary policy, financial stability and the functioning of markets.



By easing its collateral requirements during the coronavirus pandemic, the Eurosystem has proactively ensured that banks can maintain lending to the real economy. Guaranteeing the sufficiency of collateral has enabled banks to make full use of the Eurosystem's longer-term and low-interest rate refinancing operations.

The Bank of Finland has decided to establish a national framework for additional credit claims (ACCs) as from 1 September 2020. This will support continued bank lending especially to firms that have been buffeted by the pandemic. Under the ACC framework, corporate credit claims secured by the coronavirus pandemic-related public sector guarantees will be temporarily accepted as collateral.

## The Eurosystem accepts a wide range of collateral

In accordance with its Statute, the Eurosystem may provide credit to banks only against adequate collateral. Collateral must comply with harmonised Eurosystem-wide eligibility

criteria. The pricing and risk control measures for collateral have also been harmonised in the Eurosystem. This protects the Eurosystem against losses and ensures operational efficiency and a level playing field for counterparties.

Monetary policy collateral consists of marketable securities, such as bonds, and non-marketable assets, such as loans granted by banks to corporates and public sector entities. Eligible marketable collateral includes bonds issued by central governments, municipalities and local governments, covered and uncovered bank bonds, bonds issued by corporates and asset-backed securities.

To be accepted as collateral, marketable assets must be in book-entry form, admitted to trading on a market approved by the Eurosystem and of sufficient credit quality.<sup>[1]</sup> Assets accepted as collateral by the Eurosystem are referred to as ‘eligible assets’. The eligibility criteria are laid down in full in the [ECB’s General Documentation Guideline](#).<sup>[2]</sup>

The Eurosystem publishes a [list of eligible marketable assets](#) which is updated on a daily basis. The national central banks (NCBs) assess the eligibility of securities issued and admitted to trading on their respective markets, monitor changes and report them on a regular basis to the ECB’s list of eligible assets. Eligibility is also a prerequisite for bonds purchased under the ECB’s monetary policy purchase programmes.

No common list is maintained of non-marketable assets. Instead, counterparties propose non-marketable assets for use as collateral with their home NCB and asset eligibility is always assessed on a loan-by-loan basis. The use of bank loans as collateral is influenced by, for example, national legislation and other specific national features. The processes for the use of credit claims as collateral therefore vary from one central bank to another.

The Bank of Finland has accepted credit claims, i.e. bank loans, as collateral since 2007. In recent years, bank loans have become one of the most significant asset types submitted as collateral to the Bank of Finland (in 2019 about 24% of all collateral was bank loans). The Bank of Finland has supplemented the ECB’s General Documentation Guideline with its own ‘Rules for counterparties’.<sup>[3]</sup> The Rules describe in more detail the legal, technical and operational requirements for the use of credit claims as collateral with the Bank of Finland.

Counterparty banks must have the operational capability to produce from their own information systems detailed, up-to-date information on credit claims pledged as collateral and any changes affecting their eligibility. Before the use of credit claims as collateral, counterparties must describe how they intend to submit the above information to the Bank of Finland. The Bank of Finland will check that the processes function according to the descriptions. Before pledging credit claims to the Bank of Finland, the counterparty bank itself will assess their eligibility.<sup>[4]</sup>

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1. In addition, marketable assets must meet the criteria relating to e.g. non-subordination, currency and coupon structure.

2. Guideline (EU) 2015/510 of the European Central Bank of 19 December 2014 on the implementation of the Eurosystem monetary policy framework (ECB/2014/60) (recast).

3. Implementation of monetary policy operations and collateral management at the Bank of Finland.

4. The counterparty bank is required to check the following information on the loan agreements: legal form of the

Bank loans are non-transparent instruments compared with marketable securities, and Finland does not have a national credit register. The Bank of Finland therefore conducts inspections of counterparty banks in accordance with the Eurosystem's requirements to verify that the information provided to it on credit claims is always up-to-date and accurate.

## The coronavirus pandemic also affects collateral policy

By easing collateral requirements and procedures, the Eurosystem has sought to ensure banks' access to central bank funding even in difficult times. On [7 April 2020](#), the ECB Governing Council adopted a broad package of temporary collateral easing measures which entered into force immediately and will remain in place at least until September 2021. The most significant change affecting the Bank of Finland's counterparties was the reduction of collateral valuation haircuts by 20% for all assets. The haircuts applied to non-marketable assets also decreased simultaneously on account of the regular review of the risk control framework. As a result, banks will receive a larger amount of central bank credit against existing collateral.

The use of unsecured bonds issued by banks was also relaxed by raising the issuer-specific concentration limit from 2.5% to 10%, allowing counterparties to use as collateral a larger share of uncovered bank bonds issued by other banks. In addition, in countries where the NCB has adopted an additional credit claim (ACC) framework, the criteria and procedures for ACC collateral were eased. To ensure the availability of collateral, the Governing Council decided on [22 April 2020](#) that marketable assets that met the eligibility criteria on 7 April will continue to be eligible despite potential rating downgrades.

In addition to the joint decisions, the Bank of Finland had already, on 1 April 2020, lowered the minimum threshold for credit claims for domestic use as collateral from EUR 500,000 previously to EUR 25,000 in order to support the availability of collateral for its counterparty banks and the flow of funding to firms and households.

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loan agreement (negotiable/ordinary), type of principal, non-subordination, interest rate linkage, currency and the debtor's credit quality. In order to ensure that a valid security is created over credit claims in the event of a counterparty's insolvency, bank loans pledged to the Bank of Finland may not contain any restrictions on endorsement or realisation. A loan agreement between a bank and the customer may not contain any restrictions on the disclosure of information to the Bank of Finland and the Eurosystem.

Chart 1.

Category	Collateral easing measures
Credit claims / ACC frameworks	Acceptance of ACC collateral covered by COVID-19 government guarantees
	Acceptance of new debtor types in ACCs covered by COVID-19 government guarantees
	Acceptance of expanded set of credit assessment systems
	Reduction of loan-level reporting requirements for credit institutions
	Removal of minimum size threshold for credit claims
Rating measures	Collateral eligibility 'freeze', rating floor imposed at credit quality step 5 (CQS5)
	ABSs: eligibility 'freeze', rating floor imposed at credit quality step 4 (CQS4)
Risk tolerance	Proportionate reduction of haircuts by 20%
	Reduction of haircuts for non-marketable assets
UBBs	Increase of concentration limit for unsecured bank bonds (UBBs) from 2.5% to 10%
Greek waiver	Acceptance of Greek sovereign debt as collateral

Source: ECB.

## Additional credit claims broaden use of bank loans as collateral

In addition to the credit claims eligible under the Eurosystem's general collateral framework, the Eurosystem has, since December 2011, also temporarily enabled the use of credit claims which do not fully meet the Eurosystem's general eligibility criteria. The acceptance of such credit claims takes place on a central bank-by-central bank basis through the [additional credit claim \(ACC\) framework](#). Every NCB can establish a country-specific ACC framework within the limits of the Eurosystem's common minimum risk control framework. However, an ACC framework is always subject to the Governing Council's approval.

The debtors or guarantors accepted under the ACC framework may differ from those under the general collateral framework. In addition, an ACC framework may include pools of credit claims and loans denominated in currencies other than the euro and the credit claims can be of lower credit quality than the generally accepted credit claims. Deviating from the general framework means a higher risk to the Eurosystem, and this risk is mitigated by risk management measures. The collateral value of ACCs is calculated by applying higher valuation haircuts so that the collateral value of the loan takes into

account any unforeseen changes in the actual value of the loan.

The decisions taken by the Governing Council in response to the coronavirus pandemic have meant that, since April, NCBs have been permitted to temporarily include in their ACC frameworks e.g. COVID-19-related public sector guarantees which would not necessarily be eligible under the general framework. By accepting as collateral credit claims covered by COVID-19 guarantees, central banks have supported the implementation of government guarantee schemes, the participation of banks in the Eurosystem's refinancing operations and the intermediation of finance in the economy, especially to small and medium-sized enterprises. Since the end of April 2020, the number of approved ACC frameworks has increased from 9 to 14.

The Bank of Finland has decided to adopt an ACC framework as from 1 September 2020. Under its ACC framework, the Bank of Finland will accept corporate loans fulfilling the criteria of the Eurosystem's general collateral framework except for the criteria for credit quality. The minimum credit quality requirement will be set at credit quality step 4 (CQS4), i.e. PD 1.0%, in the Eurosystem's harmonised rating scale, meaning a probability of default over a one-year horizon of 1.0%. Under the general framework, the threshold is CQS3/PD 0.4%.

In addition, the Bank of Finland's ACC framework will temporarily cover COVID-19 guarantees granted by the Finnish government. In Finland, such guarantees are granted by the state-owned export credit agency Finnvera Plc, primarily to SMEs. The Bank of Finland has limited the guarantees accepted under the ACC framework according to their purpose and the date of issue. This ensures that the eligible guarantees will concentrate on loans applied due to the effects of the coronavirus pandemic.

## **The Bank of Finland's role in the identification and monitoring of eligible assets**

The Bank of Finland is responsible for assessing the eligibility of securities issued and listed in Finland. Assessments are conducted as new securities are issued onto the market. The assessment follows in detail the requirements specified in the ECB's Guidelines, to ensure the eligibility of assets and non-discriminatory treatment of issuers. When all the data necessary for eligibility assessment are available and the Bank of Finland has conducted the assessment, the securities that fulfil the eligibility criteria are reported to the ECB, which maintains a centralised list of assets eligible as collateral on behalf of the Eurosystem.

The Bank of Finland cooperates with the other Eurosystem central banks in the assessment and reporting of securities that are issued and/or listed outside Finland. In addition, complex or new structures in debt securities are reviewed more extensively on the Eurosystem level, to ensure harmonised implementation of the eligibility assessment of assets in the euro area.

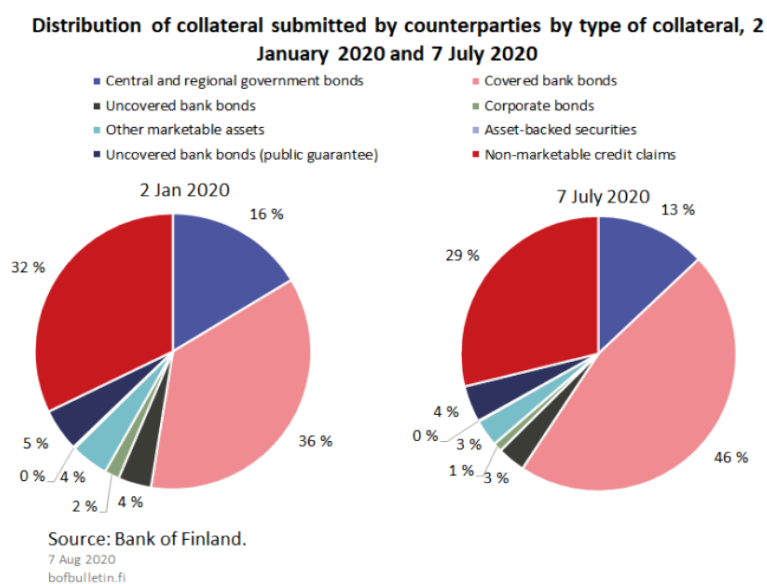
## **Collateral submitted to the Bank of Finland**

As a result of the corona pandemic, banks have participated more than ever in the Bank

of Finland's [refinancing operations](#). The value of banks' eligible assets has a direct impact on their possibilities of borrowing in central bank refinancing operations.

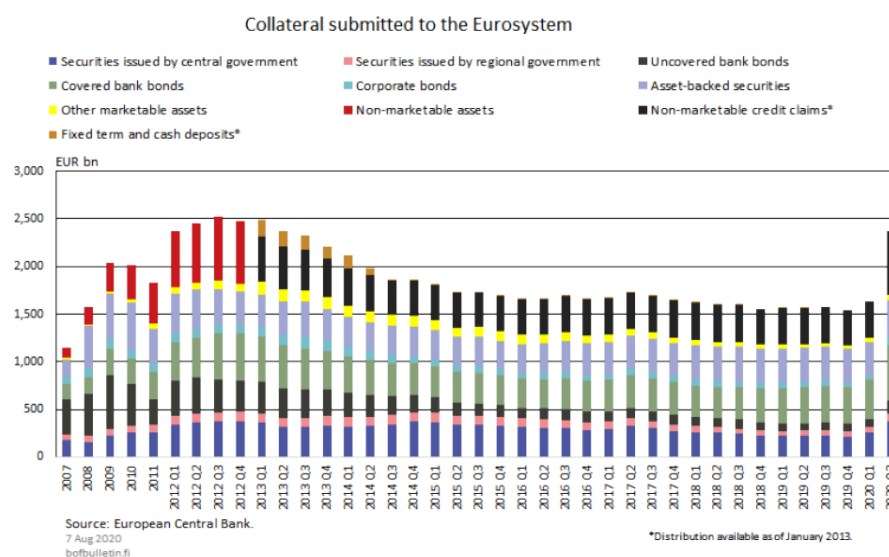
The amount of collateral pledged to the Bank of Finland has in 2020 increased significantly. The amount of collateral currently pledged to the Bank of Finland is higher than ever, over EUR 30 billion. The most popular collateral types have remained the same in 2020. The majority of the collateral is banks' covered bonds, public sector bonds and credit claims. Spring 2020 saw a change in the shares of the various types of collateral. Particularly the share of bank's covered bonds submitted as collateral has increased considerably in recent months (Chart 1).

Chart 1.



In the Eurosystem as a whole, the volume of collateral submitted to central banks also increased significantly in the second quarter of the year (Chart 2).

Chart 2.



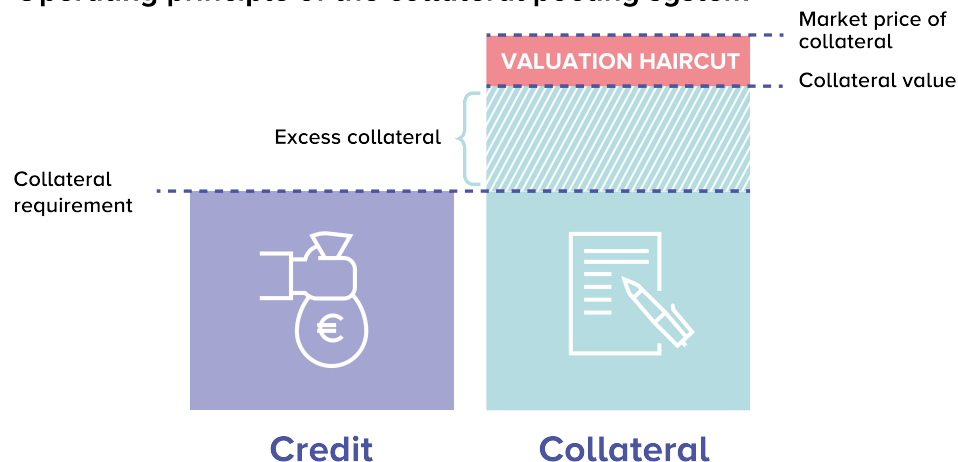
The Bank of Finland collects all eligible assets provided by one counterparty into a pool. The counterparty's total collateral requirement must be covered from this collateral pool. The total collateral requirement comprises outstanding monetary policy credit and interest, as well the intraday overdraft limit on the TARGET2 PM account, granted to ensure the smooth flow of payments. Securities submitted by the counterparty bank to the collateral pool are, however, not accepted as collateral at full nominal value; they are subject to valuation mark downs and/or haircuts. Collateral is valued on a daily basis. If the value of collateral falls below the collateral requirement, due to valuation changes, haircuts or redemptions, the counterparty must immediately submit new collateral. A counterparty cannot demobilise collateral from the pool or apply for new credit if it does not have a sufficient amount of eligible underlying assets.

As a rule, the Bank of Finland's counterparties have a significant amount of excess collateral. The value of collateral pledged to the central bank is thus considerably higher than the value of outstanding credit. In 2019, the amount of excess collateral of counterparties was on average some 40%.



Chart 3.

### Operating principle of the collateral pooling system



## Risks related to collateral controlled by various means

The objective of collateral is to protect the Eurosystem against a possible default of a counterparty bank. It is therefore important that the underlying assets are of good credit quality, their volume is sufficient and that the Eurosystem has taken into account appropriately the risks related to collateral, e.g. credit risk and the market risk related to value fluctuations. The uncertainty related to the realisation time and value of underlying assets is taken into account by risk control measures. The central bank must be able to realise the collateral sufficiently quickly, if necessary.

The Eurosystem has a variety of tools to control the risks related to collateral. Firstly, the collateral eligible for refinancing operations by the Eurosystem must have a sufficient credit rating. The eligibility of collateral is assessed based on the Eurosystem's credit assessment framework (ECAF). This common framework ensures equal treatment of both banks and credit assessment systems. As a rule, the minimum requirement for creditworthiness is considered the investment grade rating (BBB-), which corresponds to a 0.40% probability of default. Risk is also controlled by various limits that, for example, prevent large exposures to individual issuers. For example, uncovered bank bonds are subject to issuer (group)-specific concentration limits.

For securities to fulfil the eligibility criteria, the credit quality assessment must be provided by credit assessment systems belonging to one of the three sources approved by the Eurosystem. The sources currently approved are: 1) external credit assessment institutions (Standard & Poor's, Moody's, Fitch and DBRS; 2) national central banks' in-house credit assessment systems (ICASs); and 3) counterparties' internal ratings-based (IRB) systems.

The Bank of Finland does not currently have an in-house credit assessment system. The banks must therefore use credit ratings granted by external credit rating institutions or can, under certain conditions, use their own IRB models. The counterparty must apply

via the Bank of Finland for acceptance of the use of its IRB system in the Eurosystem collateral framework. The credit assessment systems are also subject to ongoing monitoring. The performance of the systems and the quality of the credit rating assessments are evaluated annually. If the system's performance does not meet the quality criteria, the Bank of Finland can require corrective measures or, in more serious cases, use of the system for credit quality assessments can be restricted.

The Bank of Finland is responsible for quality control of the IRB systems it has accepted for use by its counterparties. This is done by requiring from counterparties an annual report and by conducting regular on-site inspections of banks. The Bank of Finland cooperates with supervisory authorities in monitoring the quality of banks' IRB systems.

The Eurosystem values on a daily basis all the eligible assets at market price; in the absence of a representative market price, a theoretical price is calculated. To determine the collateral value of an asset, the market value of the asset is subject to a valuation haircut. The haircuts are the larger, the higher the risk category of the underlying asset. For central government bonds, the haircut percentages may be as low as 0.5%, whereas for credit claims with a lower credit quality and longer maturities, the haircut may be as much as 60%. The total collateral value of a bank's asset pool after haircuts determines the amount of credit granted to the bank in Eurosystem credit operations. As the collateral is valued daily, the Eurosystem is kept up-to-date of the quality and adequacy of collateral.

## Tags

[corona](#), [coronavirus](#), [monetary policy](#), [collateral](#)

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# The Bank of Finland manages its financial assets sustainably

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY



Hanna Haavanlammi  
Senior Portfolio Manager

The Bank of Finland manages financial assets worth EUR 11 billion, which consists of the foreign reserves, euro-denominated fixed-income assets, equity and property funds, and gold. The bulk of the financial assets comprise fixed-income holdings that follow an active investment strategy against benchmark indices. The central bank's core activities and fulfilment of the central bank's obligations lay the foundation for responsible financial asset management. The Bank of Finland has had responsible investment practices in place for several years and is committed to developing responsible investment activities on an ongoing basis. The Bank of Finland signed the UN Principles for Responsible Investment in December 2019.



The decisions on the management of the Bank of Finland's own financial assets are taken at the Bank of Finland and they are governed by the objectives of the central bank: *within the constraints of security and liquidity, the Bank of Finland's asset management aims for the best possible return.* The Bank of Finland's investment activities are designed to secure the value of its financial assets and ensure its ability to underpin the liquidity of the banking system and the economy. In addition, investment operations are governed by risk and sustainability aspects. Financial asset management is the responsibility of the Bank's Market Operations Department, where portfolio managers take individual investment decisions. Management of the Bank of Finland's

own financial assets has been separated from the implementation of monetary policy purchase programmes and refinancing operations.

At the end of June 2020, the value of the Bank of Finland's own financial assets was a little over EUR 11 billion. The majority (nearly EUR 7 billion) of the financial assets are fixed income assets, but the Bank of Finland has also holdings in equity and property funds. In addition, the financial assets comprise gold and Special Drawing Rights (SDR), but they have not been subject to investment activities in recent years.

Table 1.

#### The Bank of Finland's financial assets

	30 June 2020 EUR mn
<b>Gold</b>	<b>2,489</b>
<b>Foreign reserves</b>	<b>6,638</b>
SDR	540
USD-denominated fixed-income assets	4,588
GBP-denominated fixed-income assets	719
JPY-denominated fixed-income assets	791
<b>Euro-denominated fixed income asset portfolio</b>	<b>754</b>
<b>Equity funds</b>	<b>1,018</b>
<b>Property funds</b>	<b>118</b>
<b>Total</b>	<b>11,017</b>

The Bank of Finland's fixed-income portfolios are managed in accordance with the investment policy decided annually by the Board of the Bank of Finland. The investment policy sets a strategic allocation for each asset category and determines an appropriate level of interest rate risk for each currency. On the basis of the risk limits applied to the fixed income asset portfolio, strategic market-based indices are designed for use as benchmark indices for fixed income investments. Portfolio managers make direct fixed income investments, seeking to obtain additional return by diverging from the strategic asset allocation and exceeding the return of benchmark indices. In addition to risk management restrictions and investment objectives investment decisions, the portfolio managers' market views and the market situation as well as sustainability aspects have a bearing on investment decisions.

At the end of June 2020, the fixed income portfolios comprised sovereign bonds and

central bank deposits (52.1%), supranational or government-related bonds (20.9%), collateralised covered bonds issued by credit institutions (6.8%), corporate bonds (19.3%), and cash instruments (0.9%). Of these fixed income assets, 61.3% were held in AAA– and AA+ rated bonds, with the lowest official credit rating being BBB– (0.7%). In addition, EUR 642.6 million was invested in debt securities issued by unrated companies. The average duration, measuring the interest rate risk of the fixed-income portfolio, was around 2 years at the end of June<sup>[1]</sup>.

Table 2.

<b>Allocation of the Bank of Finland's fixed-income asset portfolio</b>	
<b>Fixed-income portfolios</b>	<b>30 June 2020 (%)</b>
Government bonds and central bank deposits	52.1
Government-related bonds	20.9
Covered bonds	6.8
Corporate bonds	19.3
Cash holdings	0.9
<b>Total</b>	<b>100</b>

In addition to its fixed income portfolios, the Bank of Finland manages a long-term investment portfolio, which has lower liquidity requirements and a higher expected return compared to other portfolios. At the end of June 2020, the long-term investment portfolio consisted of equity and property holdings. The equity portfolio amounted to EUR 1,018 million and the property portfolio to EUR 118 million at 30 June 2016. Portfolio managers do not invest directly in equities or properties but investments are made via funds. The Bank of Finland has diversified its equities portfolio into exchange-rated funds (ETF) that invest in global developed markets. Its real-estate investments are diversified across a number of European funds. Each fund owns property in desirable locations, which makes the properties easy to rent and ensures a steady long-term return.

## Greater focus on investment responsibility as investments expand into new asset categories

The central bank's core functions and fulfilment of the central bank's obligations lay the foundation for responsible financial asset management. Greater focus has been placed, however, on investment responsibility, both over time and with the expansion of

1. Excluding the investments in domestic commercial papers made as of March 2020.

investment activities into new asset categories. Traditionally, the Bank of Finland invests primarily in government bonds. In response to the changeover to the euro, investments have expanded to cover corporate bonds and, subsequently, equities and properties. With the new asset classes, all aspects of sustainability have been integrated into investment decisions. Responsible investment generally means the appropriate recognition of environmental and social and corporate governance issues in investment practices. By signing the UN Principles for Responsible Investment (PRI) in December 2019, the Bank of Finland publicly committed itself to incorporating these factors into its investment decisions as well as ownership policies and practices.

With the signing of the PRI, in the management of its financial assets the Bank of Finland committed itself to sustainability, to the active development of responsible investment activities and to providing annual progress reports on this. Among central banks, very few have signed the UN PRI. That said, other central banks have also stepped up their involvement in this issue and consider incorporation of the different aspects of sustainability into investment activities important. Several central banks, e.g. de Nederlandsche Bank and Banque de France, have made considerable progress in integrating sustainability into their investment activities.

## **Responsible investment practices in place at the Bank of Finland for several years**

The Bank of Finland has had responsible investment practices in place for several years. This approach has been based both on thoughts of how to avoid investing in the debt securities of issuers that raise concern from the sustainability perspective and of how to do good with investments in our own investment environment. The Bank has set up its own working group on responsible investment, which convenes regularly to discuss issues of responsible investment and the Bank of Finland's investments from a sustainability perspective. In practice, all portfolio managers engage in responsible investment activities as the Bank of Finland's responsible investment strategy is applied in all investment decisions.

As regards fixed-income investments, all issuers of corporate bonds and covered bonds are expected to comply with international standards. This means in practice that the Bank of Finland only invests in the debt instruments of issuers that comply with the principles of corporate sustainability defined in the United Nations Global Compact. The principles are derived from the Universal Declaration of Human Rights, the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption. The Bank of Finland, moreover, does not make direct fixed-income investments in companies who deal in weapons prohibited by international conventions. The Bank employs an external analysis services provider to help identify issuers that are in breach of the standards. On a quarterly basis, the working group on responsible investment takes decisions on issuers to be excluded from its investment activities. Portfolio managers have continuous access, however, to the external service provider's timely information and analysis on breaches of standards to support its investment decisions.

As part of its responsible investment activities, the Bank of Finland makes investments in green bonds issued to fund environmental projects and in bonds issued to promote social and sustainability projects. In addition, the Bank of Finland is a major investor in bonds issued by development banks, i.e. national or international consortia that provide funding and expertise to development projects.

In the case of equity and property fund investments, the selection of funds and fund managers plays a key role in the implementation of the responsible investment strategy. Only actors who are strongly committed to sustainability and the promotion of their own practices in terms of both corporate responsibility and the sustainability of the fund qualify as fund managers. The Bank of Finland also expects fund management companies to pursue an active ownership strategy and exert influence on the companies they invest in, so that sustainability aspects are fully taken into account. The performance of the funds of the portfolio is monitored on a regular basis and an active dialogue is maintained with fund managers. Achievement of the sustainability objectives of property funds is monitored, as are the sustainability measures of the funds relative to similar funds.

## **The Bank of Finland endeavours to be an active promoter of sustainability**

In addition to maintaining responsible practices in the investment of its own financial assets, the Bank of Finland endeavours to be an active player in sustainability issues within the Eurosystem and on various fora, internationally. The Bank of Finland is a member of the Network for Greening the Financial System (NGFS), a global forum formed by central banks and supervisors, thus contributing to the debate on green finance and cooperating with other authorities and financial sector participants. The NGFS plays a key role in formulating consistent definitions and promoting the dialogue. In 2019, it published recommendations encouraging central banks to recognise sustainability factors in the management of their own financial assets.

Climate change has also become one of the main issues to be considered in responsible investment. By analysing the effects of climate change, new types of risks and opportunities can be identified in the asset portfolio. The Bank of Finland's sustainability programme, published in December 2019, also emphasises the promotion of sustainable growth and wellbeing, exerting influence via information and cooperation as well as management of climate risks, which will also be reflected in the design and development of the Bank of Finland's responsible investment strategy. The Bank of Finland's activities will in future be governed more by aspects of sustainability. This is an area considered to be extremely important, and additional resources have therefore been allocated to it. In July, the Bank recruited a Principal Sustainability Specialist, which demonstrates the Bank's will and commitment to devote resources to continuous development of responsible investment activities.

### **Tags**

[coronavirus](#), [financial asset management](#), [responsible investment](#), [sustainability](#)

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# The Bank of Finland maintains and develops the common European financial market infrastructure

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY



Teemu Peltoniemi  
Head of Division

The Bank of Finland maintains and develops the common European financial market infrastructure and is a centre of expertise in systems for Finnish and Nordic banks. It also has several different operational roles on the financial markets, for example connected with the management of its own foreign exchange reserves and monetary policy credit operations.



## The Bank of Finland develops and maintains the financial market infrastructure

Modern information systems have an important role to play in securities trading and the payment transactions between banks. At the Bank of Finland this is apparent inasmuch as responsibility for the financial markets infrastructure, such as the maintenance and development of payment systems, has increased. Such tasks and functions are derived from legislation on the Bank of Finland.

More and more financial infrastructure in Europe is being built by the Eurosystem, thus supporting the development of a common European Capital Markets Union. The

Eurosystem's common payment and settlement systems create stability for the single currency area, and jointly produced services are a more efficient way to deliver vital services to European markets.

The Bank of Finland also functions in these roles as a constructive member of the Eurosystem, a dynamic central bank bringing to the table its own input, to ensure that any joint systems established are efficient, in terms of both costs and operation.

## **The TARGET2 payment system moves interbank payments in real time**

The Eurosystem's most important market infrastructure to date for the commercial banks active in Finland is the TARGET2 payment system, which facilitates common monetary policy implementation in the euro area by enabling the participating central banks to settle monetary policy credit operations in euros. Counterparties (i.e. banks) then use these funds to settle, for example, securities transactions and retail payments made by private customers between them. (See [Record amount of credit granted to Finnish banks.](#))

When payer and recipient have accounts with different banks, retail payments and, for example, Finnish salaries (or, more precisely, transfers of funds between the relevant banks) are now settled via the TARGET2 system. Although payments in the Single Euro Payments Area are faster than they were before, even between private individuals, they are not yet transacted in real time in most cases.

The banks send the details of their retail customers' payments to the STEP 2 system operated by EBA Clearing, which then calculates each bank's net position in relation to the other parties. In practice, then, the bank involved in euro payment transactions always either pays funds or receives them from other participating parties. When these positions are known, the banks transfer the funds to one another (via EBA Clearing) in the TARGET2 system. In Finland, the process is such that customer payment transfers of funds to the banks received by the afternoon are cleared in TARGET2 that same day, and any payments arriving later are cleared early the following morning. After the transfers, payments are considered as final and the banks can record the transactions to the end customers in their systems. In this way, Finnish salaries and retail payments also finally appear in the accounts of private customers.

## **TARGET2-Securities clears international securities transactions quickly and securely**

In addition to the TARGET2 payment system, the Eurosystem also facilitates securities settlement by means of the TARGET2-Securities (T2S) system, in use in central bank money in 20 countries. T2S allows the parties to a securities transaction located in different countries to receive cash (in the case of the seller) or securities (in the case of the buyer) at the same time in central bank money, which reduces settlement risk. As with TARGET2, the European banking sector is the end client of this infrastructure. Although some customers of the Bank of Finland payments system already use the T2S system for settlement of securities transactions in other central securities depositories,

T2S will be far more relevant to the Finnish market when Euroclear Finland, a central securities depository located in Finland, joins the T2S platform.

## **TIPS (TARGET Instant Payment Settlement) makes possible instant payment in central bank money**

Since November 2018, the Eurosystem has also had a role to play in instant payments,<sup>[1]</sup> as the owner and operator of TARGET Instant Payment Settlement (TIPS). TIPS is the Eurosystem's response to the growing demand for instant payment and its increased fragmentation as a result of the introduction of national solutions. TIPS allows linked banks to deliver instant payment services to their customers 24/7 throughout the year. Payments cleared via the TIPS system are confirmed as final, as they are cleared using the Eurosystem's TARGET infrastructure in central bank money in just seconds. The funds appear in the bank accounts of private individuals immediately, regardless of the time of day. It is relatively easy for banks to start using the TIPS system, as the requirements for participating are the same as for TARGET2.

So far, customers of the Bank of Finland payments system have not connected to TIPS, but the situation may well change in the next few years, as in July 2020 the [ECB took decisions](#) which will ensure pan-European reach of instant payments. There are no longer any barriers to the rapid transfer of payments as far as the infrastructure is concerned.

## **The Bank of Finland provides guidance and advice in the use of payment and settlement systems and gives assistance when there are problems**

The role that the Bank of Finland has as the operator of the TARGET2 (payments), the T2S (securities settlement) and the TIPS (instant payments) systems entails being a point of contact and a centre of expertise for these systems in Finland. The Bank of Finland is responsible for ensuring that participating banks are properly and adequately familiarised with the systems and that they are technically and operationally ready before they are connected to them. In this way the Bank of Finland, like other central banks, can itself ensure that local actors are able to use the system in compliance with the common rules agreed for the Eurosystem.

The Bank of Finland also helps the relevant parties when they have technical problems. One of the main operational tasks is to ensure that the functions that are crucial from the perspective of the European financial markets run smoothly in all situations. This means that the Bank of Finland must be able to act in situations where, for one reason or another (e.g. data network problems), a party is unable, say, to transfer euros related to foreign exchange trade on time. In such a case, the central bank could make the payment out of that party's account on its behalf, making use of the agreed contingency procedures. The Bank of Finland is always prepared to act on another bank's behalf to

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1. Instant payment refers to the electronic systems for making retail payments and which process them in real time around the clock every day of the year. Funds sent in this way are available to the recipient immediately.

avoid negative, possibly systemic, effects on the financial markets if the transaction were not carried out.

On the other hand, there can also be problems with the above mentioned systems themselves. In these cases, the Bank of Finland is responsible for making sure the local counterparties are properly informed and coordinating these situations together with the ECB and the other national central banks in the Eurosystem. These tasks fall on the Bank of Finland's own experts and the designated crisis manager who coordinate solutions to problems in Finland. They also participate in the decision-making with the ECB and the national central banks regarding such matters as extending the hours of operation of systems when there are problems.

## **Development of the systems continues – greater efficiency sought through combination of systems**

TARGET2 has been around for a good 10 years and T2S has been in use for about five years now. The Eurosystem has embarked on a project to respond to the growing demands of the market and regulation in particular. The purpose of the T2-T2S consolidation project, planned for completion at the end of 2022, is to combine the current TARGET2 and T2S systems technically, making use and maintenance of the systems more efficient both operationally and economically. Moreover, the new system will provide new tools for the management of banks' liquidity, making for a more efficient market generally.

The goal in future is also to achieve the same sort of efficiency achieved with payment and settlement systems with collateral management of monetary policy operations. Although the guidelines on collateral in the Eurosystem have long been harmonised, every national central bank still manages securities and other assets in their own systems. The Eurosystem Collateral Management System (ECMS) will allow national collateral management systems to be replaced with a common technical solution. This centralised system aims at efficiency, and decisions on the Eurosystem's common collateral framework will no longer need to be implemented separately for 19 different national systems. The Bank of Finland is also actively involved in this project and pushes for European solutions that would make the Eurosystem more efficient overall.

## **The Bank of Finland also uses payment and settlement systems in its own operations**

As a central bank, the Bank of Finland is also a user of the financial market infrastructure. The Bank's investment process continues after the portfolio managers have taken the actual investment decisions and agreed on the terms and conditions of any deal with their counterparties. Nor does the work associated with the implementation of a common monetary policy within the Eurosystem end when central bank loans are granted or securities are purchased under the various purchase programmes. Monetary policy credit operations, the associated collateral or purchased securities, as well as the relevant funds, must still be transferred between the Bank of Finland and its counterparties. Without reliable payment settlement systems, these other functions would be impossible. These systems are all the more important in the midst of

the pandemic, as the number of transactions related to the implementation of monetary policy has increased.

## Tags

[corona](#), [instant payments](#) , [payment systems](#), [securities settlement](#),  
[collateral management](#)

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# Information key on tumultuous markets

TODAY 2:30 PM • BANK OF FINLAND BULLETIN 4/2020 • MONETARY POLICY



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The monitoring of financial markets is an important part of the preparation of monetary policy decisions and the monitoring of their implementation, as information from the financial markets provides clues on the state of the economy and financial conditions. Crises emphasise the importance of financial market surveillance, as emerging problems in the economy and the financial system are usually first reflected in the financial markets.



## Financial market monitoring supports monetary policy decision-making

The financial markets do not always represent the economy reliably, as the functioning of the financial markets and market prices also involve a lot of technical and psychological elements. But they do offer important tips on the current state of and outlook for the economy.

The prices and volumes of instruments quoted on the financial markets are an important factor in the central bank's assessment of financing conditions. Financing conditions broadly describe the conditions and extent to which companies, households, banks and general government can access funding.

Financing conditions are a key driver of economic activity and, ultimately, of inflation, which the ECB seeks to control in pursuit of its price stability objective. Under normal conditions, the Governing Council uses its main policy rate to guide financing conditions. The Governing Council may also utilise securities purchases, credit operations and forward guidance if needed.

Financial market tensions may hinder the transmission of the monetary policy pursued by the Governing Council. For example, a rise in risk premia could lead to an excessive rise in market rates and a tightening of financing conditions. In such an event, it may be necessary to alleviate financial market tensions through non-standard monetary policy measures, such as targeted securities purchases or longer-term and low-cost credit operations.

The financial markets are thus an important channel for the transmission of monetary policy. Monetary policy has a direct and indirect impact on all aspects of the financial markets. Therefore, mapping and analysing the conditions, outlook and expectations of the financial markets is an important part of the preparation and follow-up of monetary policy decisions.

In addition to the preparation and monitoring of monetary policy, market surveillance is also utilised by the Bank of Finland in its financial stability tasks and by the Financial Supervisory Authority.

## **Change is constant on the financial markets**

The financial markets never sleep. Global financial markets keep turning around the clock, and there is a continuous inflow of news that moves the markets.

The Bank of Finland works in close cooperation with market participants. Market surveillance is carried out with the help of various news and market information systems and by engaging in dialogue with Finnish and international financial market participants. The key objective is to filter and digest the information into clear messages of chief importance to the ECB's monetary policy.

One particular challenge for market surveillance is the scope of the monitoring field, as financial instruments and phenomena relevant to the ECB's monetary policy are found in bond and currency markets as well as in equity and commodity markets. Moreover, surveillance is not limited regionally to the euro area, but extends to other developed markets such as the United States, the United Kingdom and Japan, as well as to the largest emerging markets, such as China, India, Russia and Brazil.

In addition to financial market variables, the surveillance encompasses monetary and economic policies, international politics, economic data and potential risks in countries of key importance to the euro area. In addition to describing the condition of the financial markets, the purpose of surveillance and analysis is also to assess future developments on the markets and identify potential transmission channels for such changes. There are several instruments on the market for anticipating market participants' expectations.



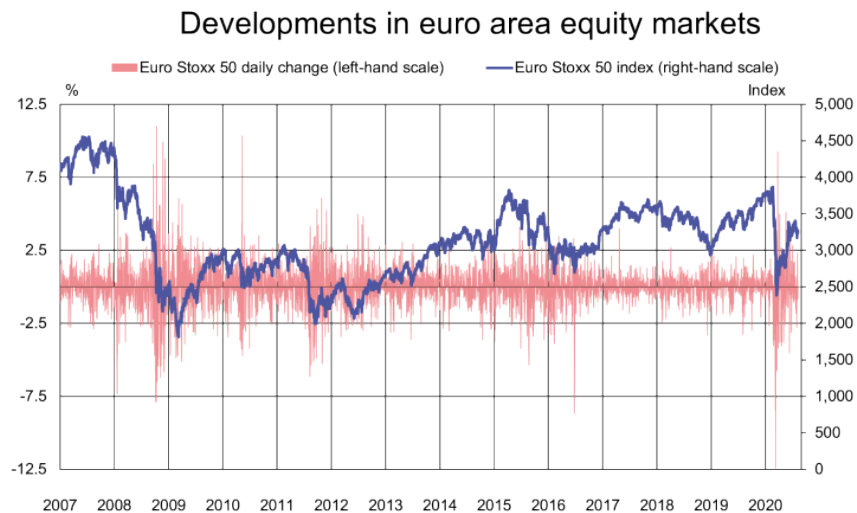
A key aspect of market surveillance is the monitoring of market expectations regarding the ECB's monetary policy. Although monetary policy is not guided by market expectations, it is important to be aware of market participants' expectations when making monetary policy decisions, as the current state of the financial markets at any given moment is a key reflection of expectations for the future. Once a monetary policy decision has been made, the impact of the decision and its implementation on the financial markets is closely monitored.

Financial markets are monitored both in real time and by addressing topical phenomena and themes. Daily reviews and ad hoc news flashes maintain awareness of the current situation, while more in-depth analysis serves to give background and illuminate phenomena and themes relevant to the ECB's monetary policy. The status, outlook and expectations of the financial markets are carefully reviewed before the Governing Council's meetings.

## Crises highlight the need for monitoring the financial markets

During the coronavirus crisis, movements on the financial markets were exceptionally tumultuous, and the ECB had to react quickly in its monetary policy stance to increase accommodation and ensure the transmission of monetary policy. As an example of market movements, Chart 1 shows a sharp increase in the day-to-day fluctuations in euro area share prices. On the weakest days, share prices fell by more than 12%, while on the strongest days they increased by more than 9%. In terms of markets fluctuation and quickly plunging stocks, this exceeded even the financial crisis.

Chart 1.



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Maintaining an up-to-date picture of the situation and the identification of financial market tensions played an important role in the preparation and implementation of the ECB's monetary policy decisions. The financial markets were closely monitored from



morning to evening. Since then, the situation on the financial markets has calmed down, and the focus of market surveillance has shifted to monitoring the effects of monetary policy decisions on the financial markets. However, close monitoring of the situation continues, as the uncertainty in the economy and on the financial markets is exceptionally high.

## Tags

[corona](#), [coronavirus](#), [financial markets](#), [monetary policy](#)

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