Understanding the expansion of central banks' balance sheets

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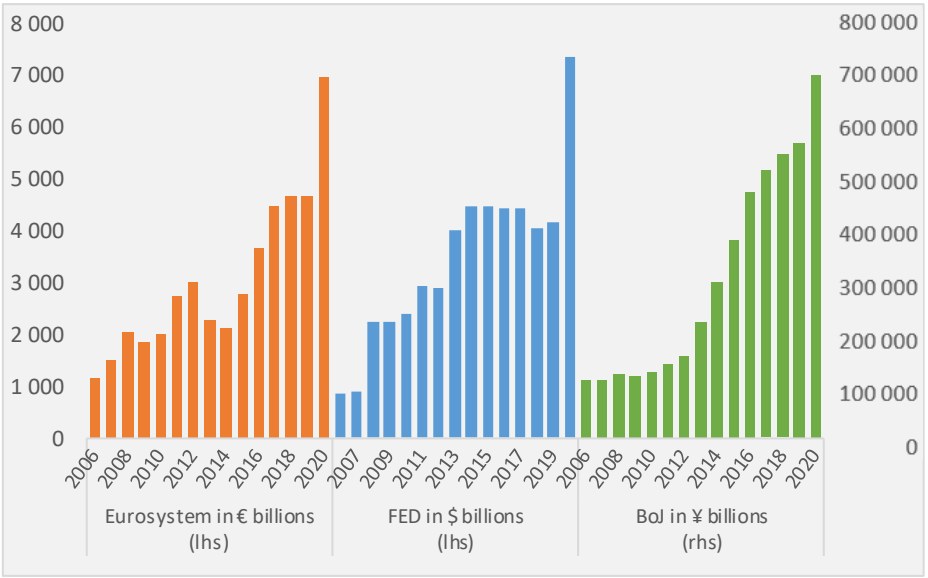
Central banks' balance sheets have grown significantly, as a result of the "non-standard" monetary policies conducted in response to the 2008 crisis and the Covid-19 crisis. Reflecting the net asset purchase programmes in place, they are still expanding. However, over the longer term, their size could stabilise and then gradually decline once inflation has consistently returned to close to its target. Adjusting the size of their balance sheets should nevertheless remain in central banks' toolbox.

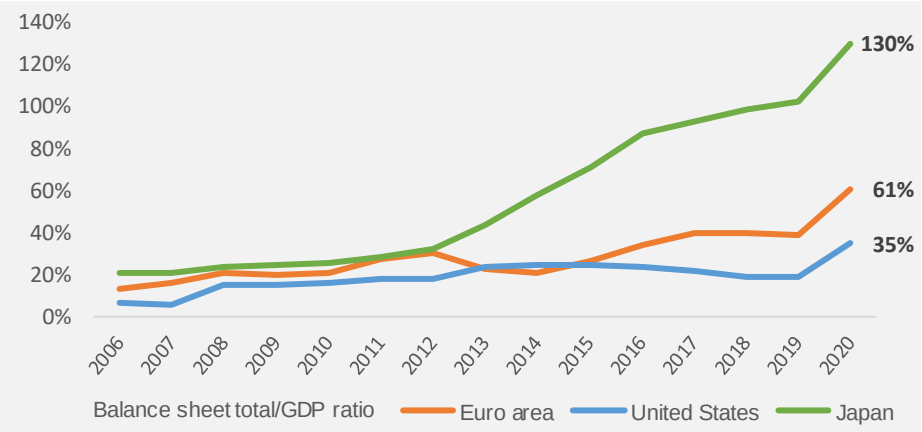
Central banks' balance sheets have grown significantly

Since 2007, central banks' balance sheets have expanded very strongly. That of the Eurosystem (i.e. the consolidated balance sheet of the European Central Bank and the national central banks) has increased more than fourfold, and those of the Bank of Japan (BoJ) and the US Federal Reserve (FED) by a factor of about six and eight respectively over this period. The size of the Eurosystem's balance sheet exceeded EUR 7 trillion at the beginning of 2021, i.e. more than 60% of the euro area GDP (Chart 1).

Chart1: Balance sheets of the Eurosystem, the FED and the BoJ

(in amounts and as a % of GDP)





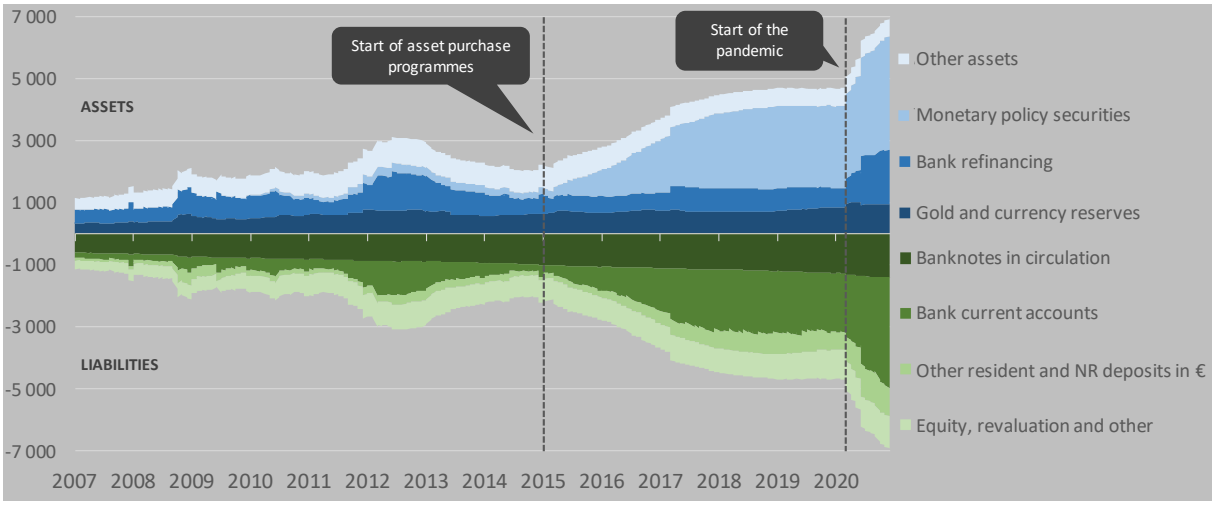
Source: ECB, FED, BoJ, Eurostat

Note: Top panel: amount in billions of euros (G€), dollars (G$), and yen (G¥). Bottom panel: as a % of GDP.

This strong growth is the result of the "non-standard" monetary policies conducted by central banks since the 2008 crisis. These policies have consisted in particular in acquiring public and private debt securities and in massively serving banks' refinancing demands. Their objective has been to make the conditions for financing the economy more favourable, in a context where the margin for lowering "key" interest rates had become small or zero. And thereby to mitigate the effects of the macroeconomic shocks that have hit the euro area and to get inflation to converge towards the desired level.

After posting sustained growth over the period 2007-2014, with an average annual increase of around 8.5%, the Eurosystem's balance sheet rose sharply from 2015 to 2019 (climbing by 16% on average per year) following the introduction of asset purchase programmes designed to combat deflation risk (Chart 2). A new phase of balance sheet expansion, of unprecedented magnitude, began in March 2020 with the implementation of emergency measures to counter the effects of the Covid-19 crisis (see Odhendal et al. (2020)). In less than a year, the Eurosystem's balance sheet rose by EUR 2,200 billion, mainly as a result of the Pandemic Emergency Purchase Programme (PEPP), and of the targeted long-term refinancing operations (TLTRO III).

Chart 2: Structure of the Eurosystem's balance sheet over the period 2007-2020 (in EUR billions)



Source: ECB

The Eurosystem currently holds 53% of its assets in debt securities for monetary policy purposes. This portfolio mainly contains bonds issued by euro area governments. The rest of the portfolio is made up of corporate bonds and covered bonds. Outstanding bank refinancing accounts for 26% of total assets. On the liabilities side, the counterpart of these assets is mainly (50%) "central bank" money held by commercial banks, also known as "reserves" (Chart 2). Banknotes in circulation remain a significant component of liabilities, but with a declining relative share (21% at end-2020, compared with 54% at the beginning of 2007).

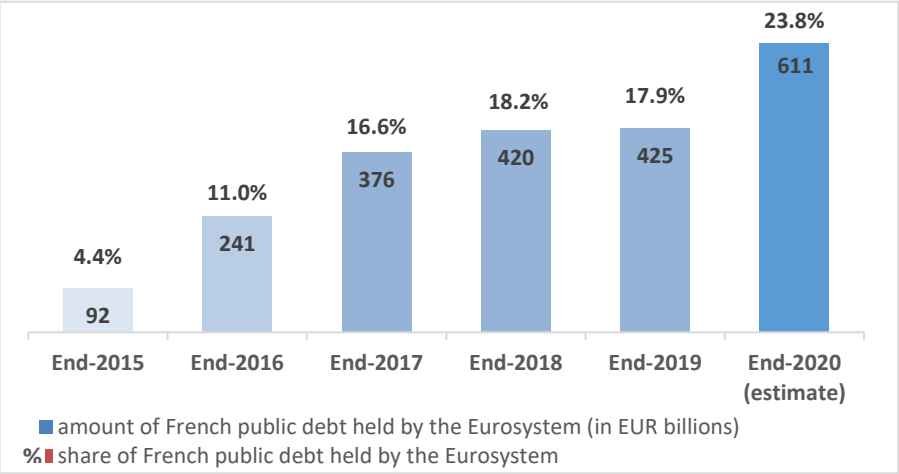
What are the limits?

In theory and in accounting terms, there are no direct limits to the size of a central bank's balance sheet. The fact that the Bank of Japan's balance sheet now stands at 130% of GDP illustrates this point. Unlike other economic agents, central banks are able to adjust the level of their assets without any immediate limit, by issuing reserves to finance their securities purchases or the provision of refinancing (Barthelemy and penalver (2020)).

However, the growth in central banks' balance sheets is not an objective in itself. It reflects the implementation of policies for the purpose of reaching an objective: in the Eurosystem, it is the return to inflation close to 2%. Asset purchases and the parameters of liquidity-providing operations are calibrated according to this price stability objective.

Moreover, like other Eurosystem monetary policy actions, asset purchase programmes are designed taking into account proportionality considerations. So-called issuer limits are set at the Eurosystem level so as to avoid, for a given debt issuance, that the share held by central banks interferes with the smooth functioning of the market or gives rise to a tangible monetary financing risk. The prohibition on monetary financing of governments by central banks laid down in the European treaties also leads to prohibiting securities purchases on the primary market. The share of government debt held by the Eurosystem's central banks, while growing strongly since the launch of the Asset Purchase Programme (APP) in 2015, thus remains at moderate levels. Chart 3 shows, by way of example, the evolution of the share of French public debt held by the Eurosystem for monetary policy purposes.

Chart 3: French public debt held by the Eurosystem for monetary policy purposes (in % and in EUR billions)



Source: ECB, Eurostat, Banque de France macroeconomic projections, Banque de France authors' calculations.

Note: the bulk of French public debt held by the Eurosystem is held by the Banque de France, and the remaining amount by the ECB.

Another possible limit is the risk of loss for central banks in the event of a deterioration in the creditworthiness of the issuers of the securities held, or that of institutions benefiting from bank refinancing. However, this risk is kept under tight control: i) the scope of the purchase programmes is restricted to assets deemed to be low-risk; ii) in practice, securities are held until maturity, thus shielding the Eurosystem from the risks related to bond price fluctuations; and iii) the refinancing operations are subject to a collateral policy. Furthermore, a possible contingency would be a rise in key interest rates, which could lower profits or even cause losses for the Eurosystem due to its immediate impact on the remuneration of liabilities (reserves), while the Eurosystem holds long-term assets with fixed rates (securities held to maturity and long-term refinancing). To face this risk of loss, central banks make provisions. As a last resort, they could be recapitalised by governments. In principle, central banks could even temporarily operate with negative equity, but in practice this would undermine their credibility and independence and could trigger a loss of confidence in the currency and ultimately uncontrolled inflation (Barthelemy and penalver (2020)).

What is the outlook?

The size of the Eurosystem's balance sheet is likely to remain at a high level for the foreseeable future. On the one hand, a significant share of the assets purchased are long-term securities. On the other, the Eurosystem has announced the reinvestment of principal payments from maturing securities, at least until end-2023 in the case of the PEPP, and as long as necessary to maintain a high degree of monetary support in the case of the APP. In the longer term, however, the Eurosystem's balance sheet is expected to stabilise and then gradually decline once inflation has lastingly returned to close to its target. Moreover, a large balance sheet would not prevent the central bank from raising key interest rates if it deemed

it necessary: it would ensure their transmission to market rates via the interest rates remunerating commercial banks' excess reserves, which remains a floor for the interbank interest rate despite the abundance of liquidity.

Without prejudging the average level of the balance sheet that is desirable in the long run, the fact remains that "balance sheet policies" have found their place in central banks' toolbox. If the room for downward manoeuvre on interest rates remains limited in the future, adjustments to the size of balance sheets will continue to be a useful tool for responding to possible negative shocks to inflation (see CGFS (Potter and Smets, 2019), or Bernanke (2020)).