### Theme:

# Monetary policy

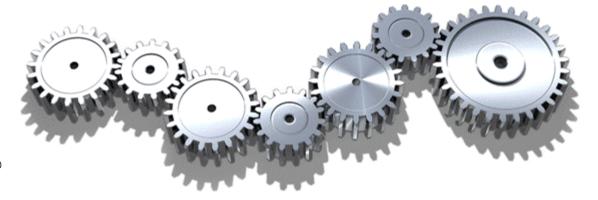
## Thoughts about the transmission mechanism and inflation

The global monetary policy tightening of the past 1.5 years is unique in scope. The usual rule of thumb is that it takes 1.5-2 years for such tightening to fully affect inflation. So far, its seemingly limited impact on growth and inflation has come as a surprise, but this also raises concerns about an impending "hangover" in the real economy and financial sector. These developments raise questions about possible changes in the nature of inflation and monetary policy transmission mechanisms. We are in uncharted territory but need insights that reduce the risks to the real economy and financial sector, which – if they materialise – could ultimately affect the political independence of central banks.

The risk of a monetary policy "hangover" is high. The pace and historically size of rate hikes, and simultaneous rate hikes by many central banks, raise legitimate concerns about impacts on economic growth and the stability of the international monetary system. With global private and public debt at historically high levels, understanding the transmission mechanism – when, where and how monetary policy affects growth and inflation – has probably never been more important. Among questions being asked are whether the huge shocks and systemic crises of recent years, the unconventional monetary policies pursued since the 2008-2009 crisis and extreme economic stimulus during the pandemic have changed the mechanism in a short- and long-term perspective.

We agree with the International Monetary Fund (IMF), the Bank of International Settlements (BIS) and the Bank of England that the limited impact on growth can be explained by:

- 1. underestimation of the expansivity of stimulus,
- 2. structural changes in the transmission mechanism,
- 3. positive expectations about the future,
- 4. the changing characteristics of inflation.



#### Underestimated pandemic crisis policies

Monetary policy transmission and its effects on inflation and growth are determined both by the level of monetary stimulus and changes in policy. In addition – especially when there are clear limits on how far key interest rates can be cut – financial and macroprudential policies play a role in the impact of monetary policy. For example, energy subsidies, exemptions from mortgage principal repayments or expectations of relief measures indirectly influence the impact of policy. Our conclusion is that a number of factors create major question marks about the expected effects of the monetary policy conducted.

#### Global pandemic relief measures, 2020-2021 (est.)

Per cent of global GDP (2019)	
Fiscal policies – <u>direct</u> budget effect	9
Fiscal policies – <u>indirect</u> budget effect	9
Monetary policies (expansion of balance sheet)	11
Total	29

Source: SEB (based on material from the IMF and others).

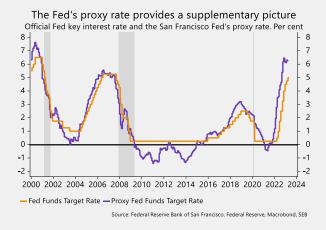
to USD 25.4 trillion.

Enormous relief measures during the pandemic. We have previously presented estimates of the size of global fiscal and monetary policies pursued during the 2020-2021 pandemic. 1) Major central banks cut key interest rates to zero per cent (see below on the neutral rate). Some – including the Riksbank, ECB and Swiss National Bank – introduced negative key rates. 2) Central banks increased their balance sheets by USD 9.6 trillion, or 11 per cent of global GDP (2019). 3) Governments worldwide let fiscal policy become more expansionary, an amount we estimate at USD 15.8 trillion, bringing the total amount of relief in 2020-2021

Household goods consumption rose sharply during the pandemic, while restrictions limited opportunities to consume services. Household savings climbed significantly in many economies due to direct fiscal stimulus measures, business subsidies that facilitated job retention and lower interest rates on loans. The distribution of savings between various income groups is unclear, but household savings increased. Households were able to maintain some of their consumption in 2022 and 2023 despite high inflation, interest rates and energy prices, as a direct result of our underestimation of the magnitude of pandemic-related fiscal stimulus.

**Unconventional monetary policies** also provided significant support to the global economy, in addition to interest rate cuts. The expansion of central bank balance sheets is also believed to have contributed to

downward pressure on interest rates. The rule of thumb is that a balance sheet increase by 1 per cent of GDP pushes down interest rates by 5-7 basis points. The pandemic's unconventional relief policies, equivalent of 11 per cent of GDP, would thus roughly equal minus 60-70 basis points.



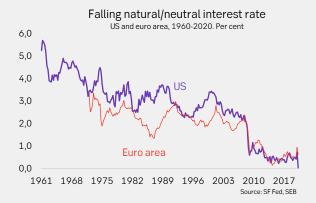
#### Central banks have used new metrics to try to

illustrate where the official key interest rate would be if we also considered such factors as their balance sheet expansion and policy guidance. When the Bank of England cut its official key rate to 0.10 per cent during the pandemic, the "Wu-Xia shadow rate" showed that these combined policies were equivalent to a key rate of minus 4-6 per cent. Similarly, the San Francisco Fed has developed a "proxy rate" to estimate the overall impact of monetary policy. The proxy rate showed that when the Federal Reserve cut its key rate to a minimum of 0-0.25 per cent after the Lehman Brothers collapse in 2008-2009, it was equivalent at times to a key rate of between -1.5 and -1 per cent. Both of these policy metrics suggest that there is a risk that the level of expansionary behaviour may have been underestimated and that the steps taken in 2022-2023 would have had a greater impact if the starting point had been less expansionary.

#### Key rates vs natural interest rates

Even if we manage to translate the different policy tools to a nominal "shadow or proxy" rate, the question remains: How expansionary was monetary policy? The natural (or neutral) rate is a reference point that central banks use to make that judgement. This natural rate has been in a downward trend for 60 years.

On the eve of the pandemic, the natural real interest rate in the US and Europe was just above zero per cent. Given an inflation target of 2 per cent, a benchmark for monetary policy is 2-2.5 per cent. If the key rate or "shadow/proxy rate" is higher than this range, monetary policy is contractionary; if it is lower, it is stimulative.



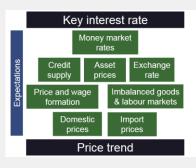
#### What is the natural interest rate?

The natural rate is the price of money at which the supply of savings equals the market demand for capital. This interest rate is usually calculated in real terms (adjusted for inflation) and should correspond to a level at which the economy is in equilibrium (full employment and price stability). The natural interest rate tends to co-vary between different countries.

Is 2-2.5 per cent still a valid benchmark for monetary policy? The answer is yes, although the pandemic led to greater uncertainty. New IMF calculations show that US and European real normal interest rates remain in the 0.2-0.6 per cent range. When inflation eventually falls to normal levels, the benchmark will stay at 2-2.5 per cent for the foreseeable future, says the IMF. The main reasons are an ageing population and weak productivity growth (savings surplus – downward pressure on natural interest rates), largely offset by continued high public debt and financial fragmentation (upward rate pressure).

#### Impact on the transmission mechanism

The strength, degree and speed of monetary policy transmission may depend not only on the level of stimulus policies, but also on possible changes in the underlying structure of the economy and financial system and the behaviour of financial markets, firms and households. One way to illustrate the mechanism is to take the ECB's model and make some adjustments.





#### The effects of monetary tightening have been limited

due to underestimated stimulus policies, but also because the market has absorbed some of this tightening and expectations are influenced by faith in crisis responses.

#### Asset prices have generally shown resilience,

reflecting the degree of large-scale stimulus, the structurally declining natural interest rate and the expectation of various actors that there will be new crisis responses when economic activity declines and/or financial stress arises. The market's reaction function, and thus the transmission mechanism, should have been weakened.

During the period of negative key rates, for example, households with bank deposits were not hit by negative interest rates. This had a major adverse impact on the net interest income and profitability of banks. Now that interest rates are rising, costs are being reduced, allowing lending institutions to diverge from normal patterns. According to the Swedish Financial Supervisory Authority, the gross margin of banks on mortgages (actual variable lending rate minus cost of funding) has decreased by 0.6 percentage points to 0.8 per cent over the past year. In addition, changes in macroprudential policy – a new element of economic policy – may affect lending opportunities and the monetary transmission mechanism.

#### Recent financial stress among US regional banks and

the Credit Suisse crisis provide new insights into the transmission mechanism. In a world where depositors manage money and information digitally, the financial landscape is also changing, with increased risks to financial stability. This has implications for the real economy via changes in risk premiums that affect the price of money and the supply of capital. These events highlight the potentially destabilising role of monetary digitisation in the financial system. Although the causes of these events can be linked to weaknesses in business models and regulatory failures – not primarily monetary policy – aggressive interest rate increases can nevertheless amplify transmission.

#### **Epilogue: New inflation properties, too?**

The ultimate goal of central banks – restoring price stability – may also prove challenging. The BIS likens inflation to water: its properties and behaviours change from frozen to liquid to gas as the temperature rises. Thus, the properties and behaviour of inflation could also change, especially in our current high-inflation environment. This unfortunately adds new complexity to the effectiveness of monetary policy.