SPEECH

LOW FOR LONG – CAUSES AND CONSEQUENCES

DANMARKS NATIONALBANK

19 September 2019

CHECK AGAINST DELIVERY

Thank you for inviting me to speak here today.

(Graph 2 – Interest rate structure, Government bonds).

The term "historically low" has been used many times to describe interest rates in recent years. In Denmark, the key monetary policy rate has been negative since 2012 except for a few months. At the latest auction, yields on government bonds and T-bills fell into negative territory for all maturities. Recently there have even been cases where new homeowners have received payments when taking out mortgage credit loans – that is, financing costs including fees have been negative.

A robust economy and sound economic policy is part of the explanation. This has turned Denmark into an attractive destination for international investors in periods of high market uncertainty. This is not the whole story though. The declining trend in interest rates is a global phenomenon and structural in nature. Interest rates in Denmark mirror interest rate developments abroad. This is a consequence of free international capital flows and the fixed exchange rate policy.

(Graph 3 – Actual and natural real interest rates).

Nominal rates are low, partly due to the fact that inflation is low. However, real interest rates are also low. The estimation of the natural real interest rate - called r* (r star) - is currently a hot topic. r* is the real interest rate level that brings actual economic activity in line with potential economic activity. r* is not directly observable and can only be estimated with some uncertainty. However, it is relatively well established in the literature, that r* has followed a declining trend over the past couple of decades.

Our estimate of r* in Denmark shows a decline since the mid-1990s by approximately 4 percentage points. This suggests that r* became negative during the financial crisis. It has remained substantially below the pre-crisis level ever since. Although estimates of r* is surrounded by a high degree of uncertainty, it is our assessment that r* will likely remain low in the coming years and

perhaps decline even further. This assessment builds on some of the structural drivers of the decline in r*.

(Graph 4 – Global savings glut)

There are several reasons for the decline and these are global in nature. One of the most important reasons is the decline in global structural growth due to only moderate productivity growth.

Add to this the fact that we are faced with a global savings glut. A continuous decline in the real interest rate has been necessary to make the investment opportunities at hand profitable. A large share of savings is concentrated among the richest people in the US, China and Japan. In the last decade, households in countries like China have increased their demand for financial assets. This has happened as the economy has grown, the population has aged, and demand for financial self-insurance has increased.

Moreover, demographic changes have also played an important role for American and European households. In a world with rising life expectancy, households tend to increase demand for savings as they face prospects of a longer life.

In our recent study on r*, we showed that savings in emerging market economies - predominantly China - and the ongoing demographic transition in the euro area have been important drivers of the large drop in r* in Denmark. Since the demographic transition is far from over yet, there is no reason to believe that a "normal situation" would imply a much higher level of r* in the coming years.

(Graph 5 – Inflation rate, long time series).

The real rate of interest is low, but so is inflation. In classical economic thinking, growth in prosperity is linked to labour productivity, labour supply, hours worked etc., while inflation is considered to be a purely monetary phenomenon – this is also called classical dichotomy. While monetary policy cannot be decoupled from labour market developments, the link to inflation has become weaker. This is often referred to as a flattening of the Phillips curve. Although labour cost pressures have strengthened and broadened amid high levels of capacity utilisation and tightening labour markets, the pass-through to inflation is taking longer than anticipated. Few had predicted that we could reach the present low levels of unemployment without seeing rising inflationary pressure.

Inflation is held at bay by globalisation: a situation where the *global* rather than the *national* labour supply is playing a vital role for domestic inflation. The large pool of surplus labour in developing countries is also putting downward pressure on wages and prices in advanced economies. Free trade and open borders result in an inflow of goods produced in low income countries and of migrants entering the labour force.

(Graph 6 – Unconventional instruments playing a larger role).

The situation with a low r* may be regarded as a new normal. The size of r* is important for the impact of monetary policy. Despite low or even negative policy rates, monetary policy may have a less expansionary effect than one might think. A general concern is the lack of monetary policy leeway to deal with the next global downturn.

The possible existence of a lower bound for monetary policy rates could challenge central banks if they want to stimulate the economy through conventional policy instruments. The question is whether unconventional monetary policy instruments, such as asset purchases and targeted lending, will become conventional during the next downturn. On 12 September the ECB decided on a stimulative package that points in this direction. The leading policy rate was lowered and net purchases under the asset purchase program were restarted.

Unconventional monetary policy measures also impact economic developments in Denmark, given the Danish fixed exchange rate policy. Let me remind you: Denmark is in reality a euro member state, but with costs of currency exchanges and without influence on monetary policy decisions by the ECB. On September 12 the Danmarks Nationalbank lowered the key policy rate in line with the ECB.

(Graph 7 – Synchronised Nordic monetary cycles).

While Danmarks Nationalbank meets its objective of ensuring stable prices in Denmark via the fixed exchange rate policy, many other central banks use interest rates to target inflation directly. Although the Nordic countries have implemented different monetary policy regimes, economic implications are in reality quite similar. The reason might be that interest rates across economies are heavily influenced by the global financial cycle

At the centre is the Federal Reserve. There is a high degree of spill-overs between financial markets in different countries. Therefore, a change in financial conditions in a large economy like the US quickly transmits to conditions in other financially open economies. It is thus impossible for the Nordic countries to insulate their monetary policy from the central banks in large countries, unless capital flows are controlled. Financial interdependence reduces the ability of monetary policy to target domestic economic conditions independently.

The high degree of synchronisation of monetary policy rates in the Nordic countries supports this line of thinking. We occasionally face short-term costs of procyclical interest rate changes, as seen in the wake of the financial crisis. However, these periods occur very rarely and often last for a very short time. Several studies find that Danish monetary policy, in general, works countercyclically, as the business cycle in Denmark is highly synchronised with the business cycle in the euro area.

Most importantly, the monetary regime should be credible. In general, evidence shows that the choice of monetary policy regime might not be that important for stabilisation of the business cycle.

Monetary policy makers are not the only ones facing challenges from the low level of interest rates. High savings rates, few profitable investment opportunities and negative interest rates are also imposing challenging times on investors. This includes pension funds and commercial banks. This is not least the case in Denmark where a large part of the pension system is funded. A consequence in Denmark has been that pension funds have turned their attention away from bonds and towards equities and so-called alternative investments such as infrastructure, forests, energy supply etc. It remains to be seen whether the risks associated with these investments are correctly estimated and priced. The lack of market prices and the lack of liquidity in many of these investments clearly pose a risk which can only be expected to materialise fully during an economic downturn.

By reducing the stock of defined benefit pension plans, pension funds have managed to transfer a large share of the risk stemming from the low yield environment to the pensioners. In general, pensions are a way to allocate society's aggregate income across generations - in a closed economy this would mean domestic production. Choosing a funded system relative to for example a pay-as-you-go system is basically a question of creating the right incentives for the financing of pensions. That is, paying pension contributions rather than taxes. Funded pensions tend to be better at tackling demographic changes, and pay-as-you-go systems tend to be better at coping with large transitory shocks, e.g. large changes in inflation rates. A mixed system like the Danish one therefore seems to be a good solution to secure a decent consumption level at retirement. If yields on the alternative investments of pension funds turn out to disappoint, an open question remains: who will actually pick up the bill for the retirement of our young generations? It is not certain that future pensioners will accept lower benefits, even though they currently take on more risk when moving towards funded pensions. The government might end up as a "pension provider of last resort".

Another question is whether the low yields are affecting pension contributions to the pension funds? On the one hand, low interest rates might make it less beneficial to transfer income into pension savings. This is referred to as the substitution effect. On the other hand, pensioners will need to save more to receive the same amount of benefits at retirement age - the so-called income effect. Empirical studies have shown that an increase in the after-tax yield on pension savings tends to incentivise people to transfer income from other savings accounts to their pensions,

while keeping the total amount of savings unchanged. This experience points to a potential decline in pension contributions due to the low interest rates. However, the prospects of a long period with very low interest rates, the so-called "new normal", create an unprecedented situation. So pension savers may choose to increase pension contributions to compensate for the lost yield. Time will tell.

(Graph 8 – Banks' earnings remain high).

The low level of interest rates may also challenge banks' ability to make profits. I acknowledge that banks are in some ways challenged by the present interest rate environment. Fortunately, Danish banks have been able to generate profits from other sources of income. While net interest income has dwindled, banks have increased income from both fees and administration margins on mortgages. Moreover, a favourable macroeconomic setting is underpinned by the interest rate policies of central banks as well as asset purchase programmes. The macroeconomic setting has contributed to a very low level of loan impairment charges in Danish banks. In fact, Danish banks have experienced a period of record profits in recent years. However, impairment charges cannot continue at the currently low levels. If we look ahead, earnings should be expected to decrease again.

(Graph 9 – Recession risks).

Even though unconventional measures remain as part of the monetary policy toolbox, there is no doubt less leeway than previously for monetary policy to support the economy in case of a downturn.

This is an important insight in a situation of heightened risk of a global recession. With almost 10 years of uninterrupted growth, the US economy is experiencing a record-long economic expansion. History shows that such an extended period of optimism tends to cause "speed blindness", sowing the seeds of a downturn.

It may be difficult to predict when the US economy will be hit by a downturn or recession, but historically, an inverted yield curve has signalled an upcoming recession. And at the moment, we are facing a situation where yields on 3-month US Treasuries exceed yields on 10-year government bonds. However, the yield curve is affected by a number of factors besides expectations of a cyclical turning point. These include the Federal Reserve's asset purchase programme. This may reduce the predictive power of an inverted yield curve.

Surveys also indicate that the perceived recession risk in financial markets has risen in the last couple of years. The trade conflict between the US and China may be a trigger. In general, history shows that upswings are inevitably followed by downturns in a market economy.

The Danish economy is well-positioned to withstand a possible global downturn. The upswing over the past six years has been balanced. Low rates have not resulted in an excessive surge in investments nor hampered household savings. On the contrary, the household consumption ratio is relatively low, despite rising disposable incomes and high household net wealth.

Let me conclude with a few thoughts on the title of this speech: "Low for long - causes and consequences". The pertinent question is "how long is long". We do not know. What we do know is that it will be prudent for the financial sector and investors to prepare for a long period of very low interest rates. This is - so to speak - the new normal. It creates new challenges for the financial sector. The only thing you can do is to adapt. And the same is true for monetary policy.

Thank you for listening.

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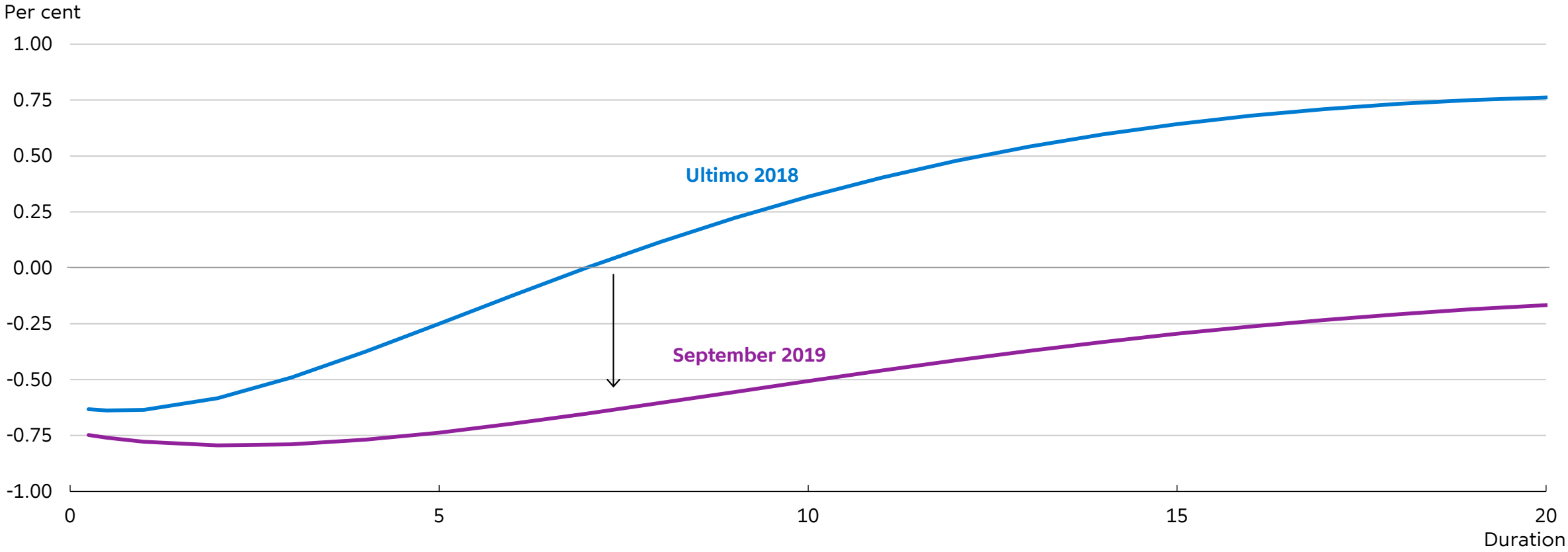
LOW FOR LONG – CAUSES AND CONSEQUENCES

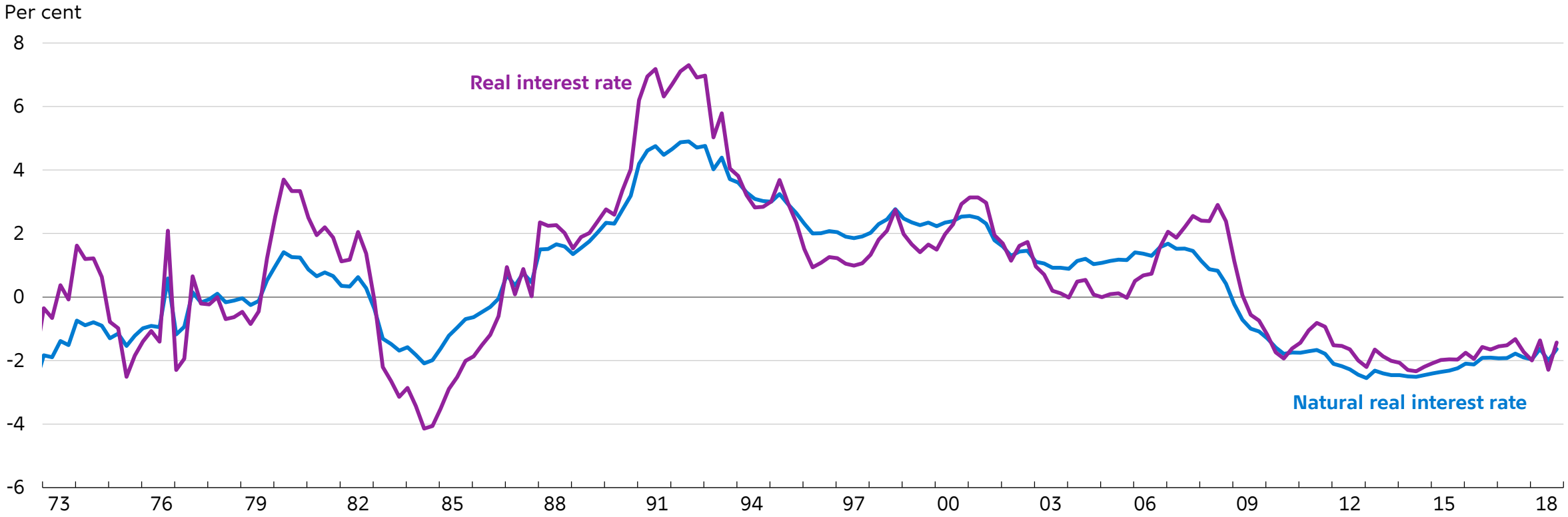
Governor Lars Rohde, CFA Society Denmark Conference, 19 September 2019

Danish government bonds:
The whole curve is in negative territory



Note: The yield curve on the 16 September 2019.

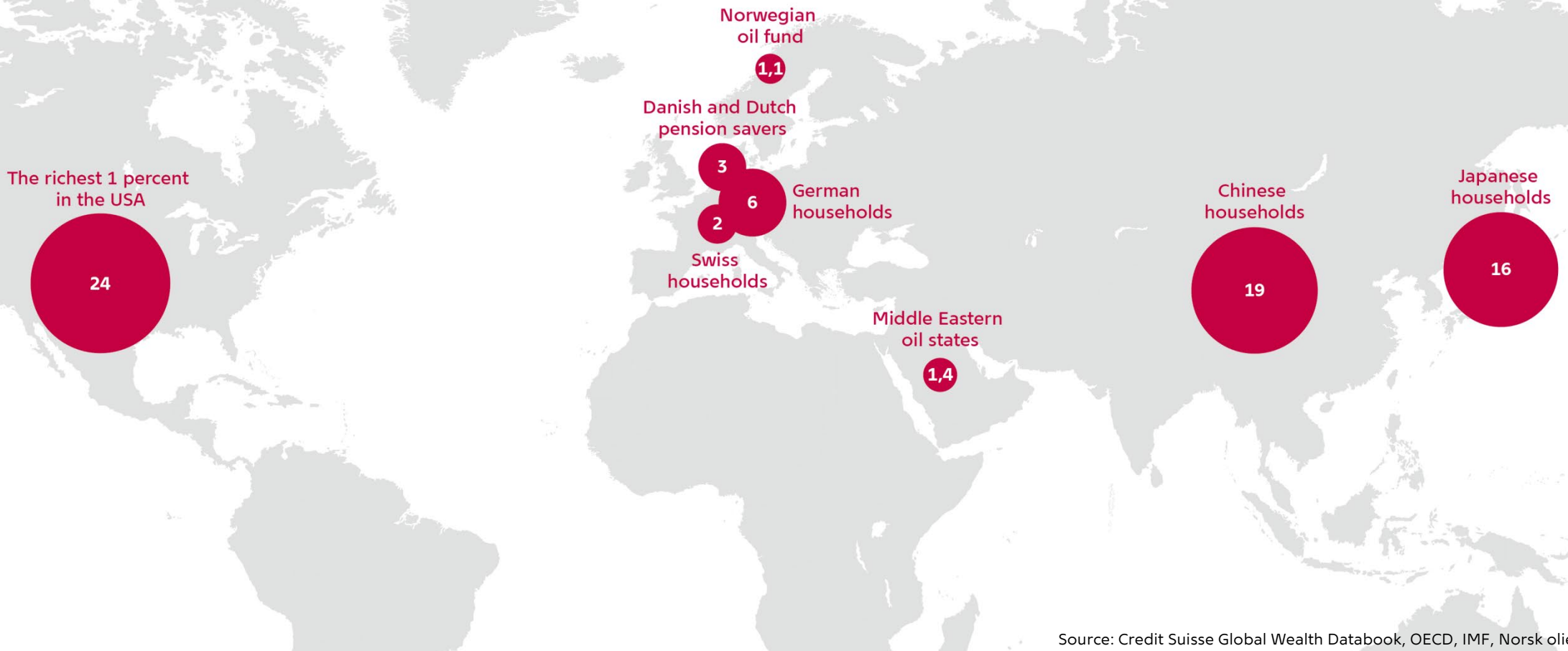
Decline in the natural real interest rate (r*)



Source: Danmarks Nationalbank.

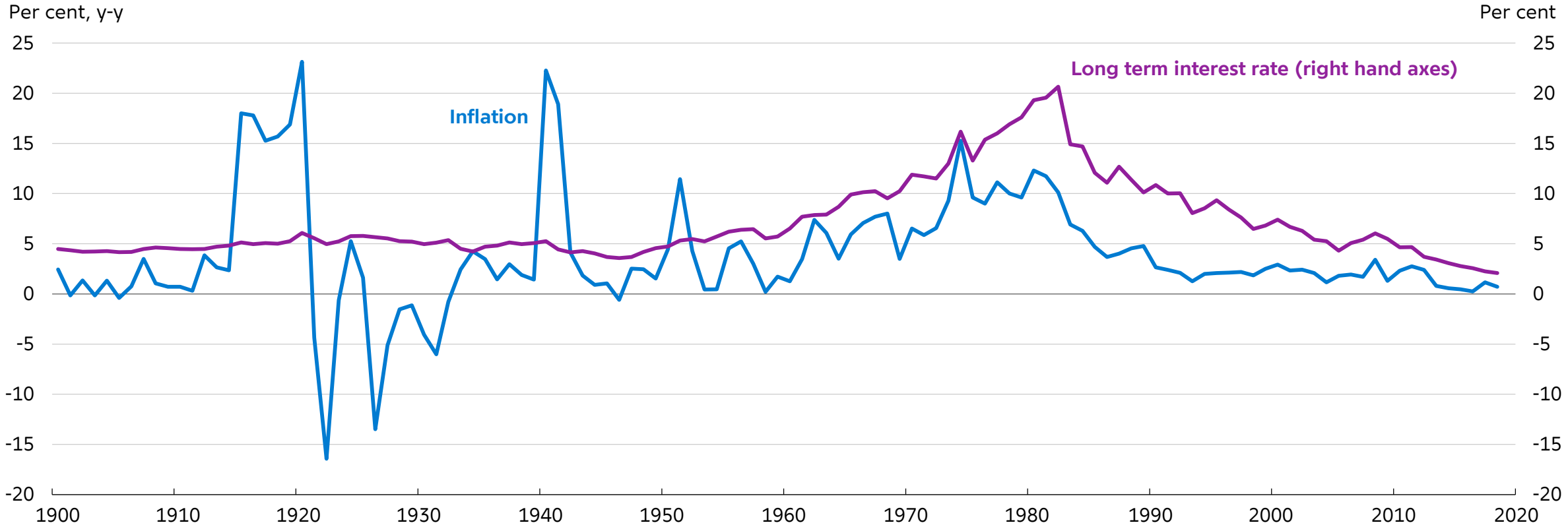
Selected contributers to the global savings glut

Private financial wealth in per cent of global GDP

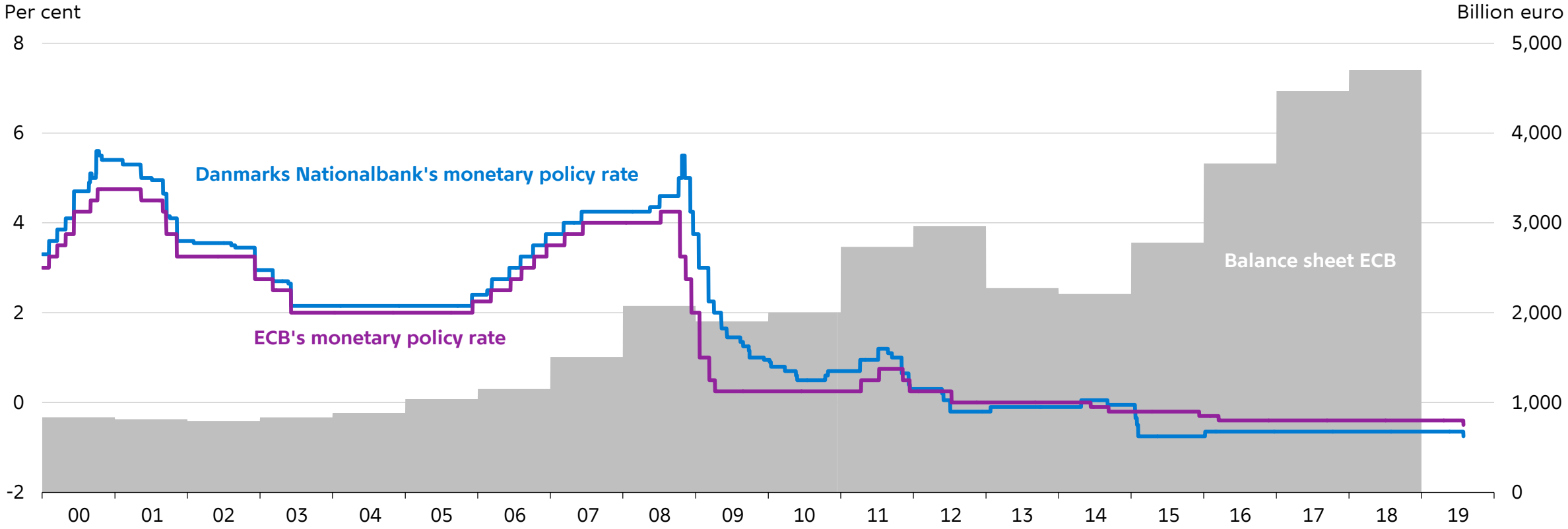


Source: Credit Suisse Global Wealth Databook, OECD, IMF, Norsk oliefond.

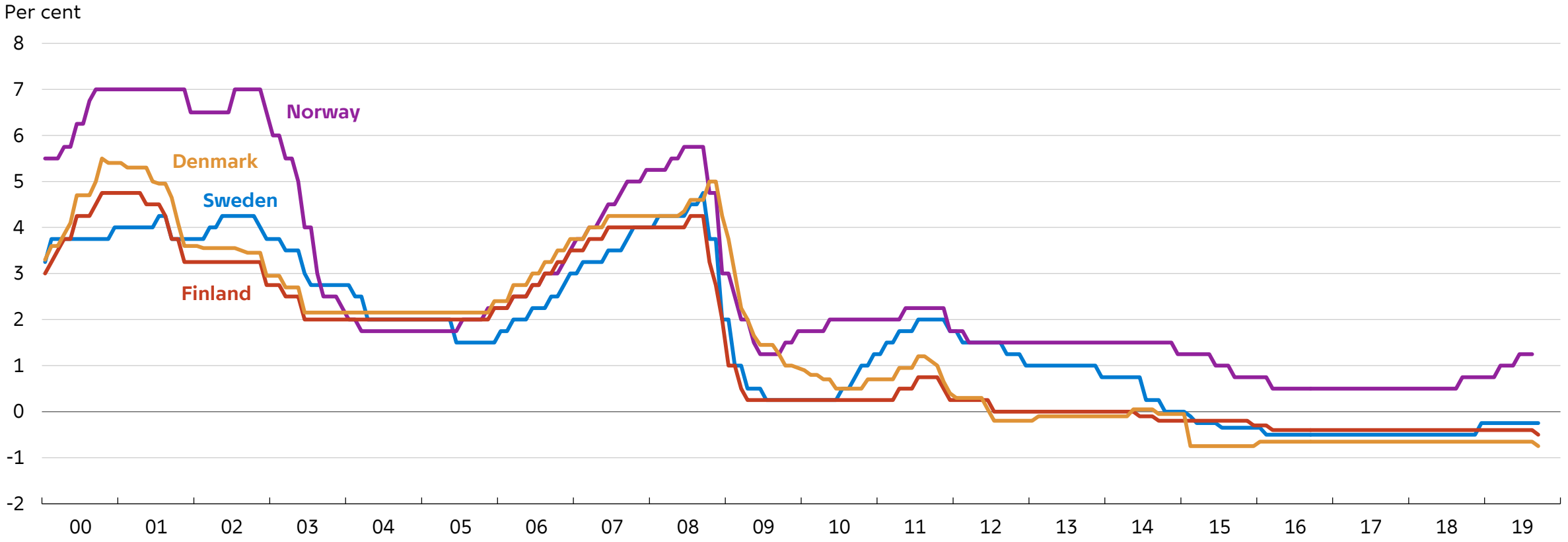
Low level of inflation at present



Unconventional monetary policy is playing a larger role



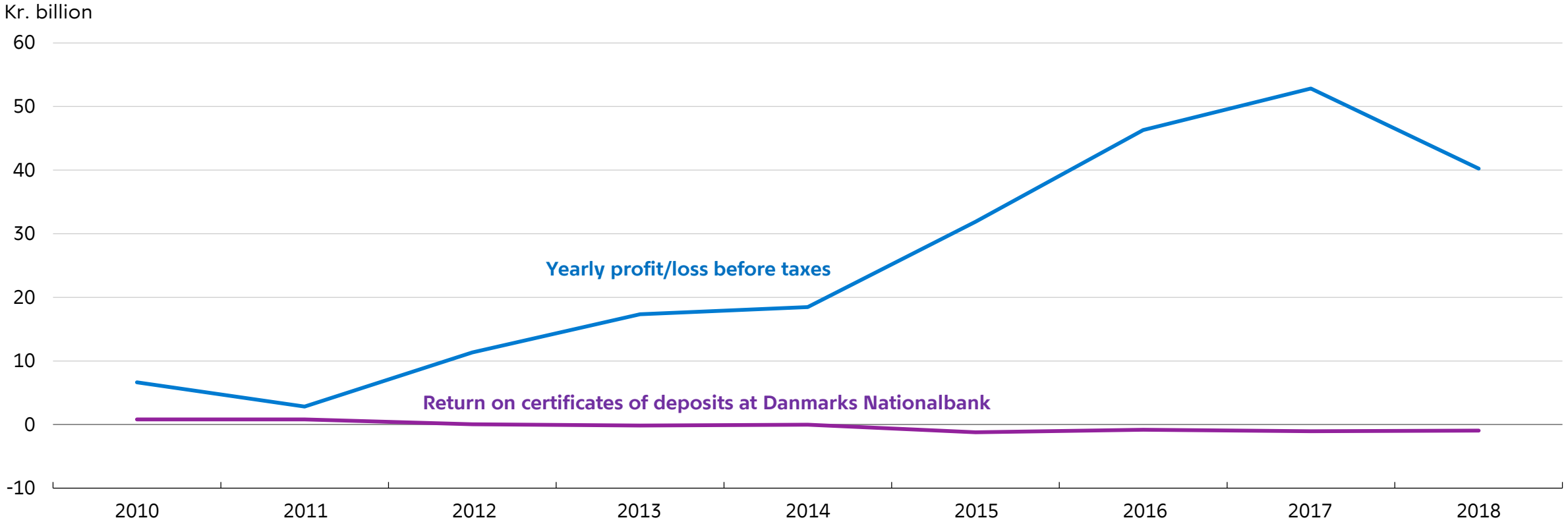
Synchronised cycle in Nordic monetary policy rates



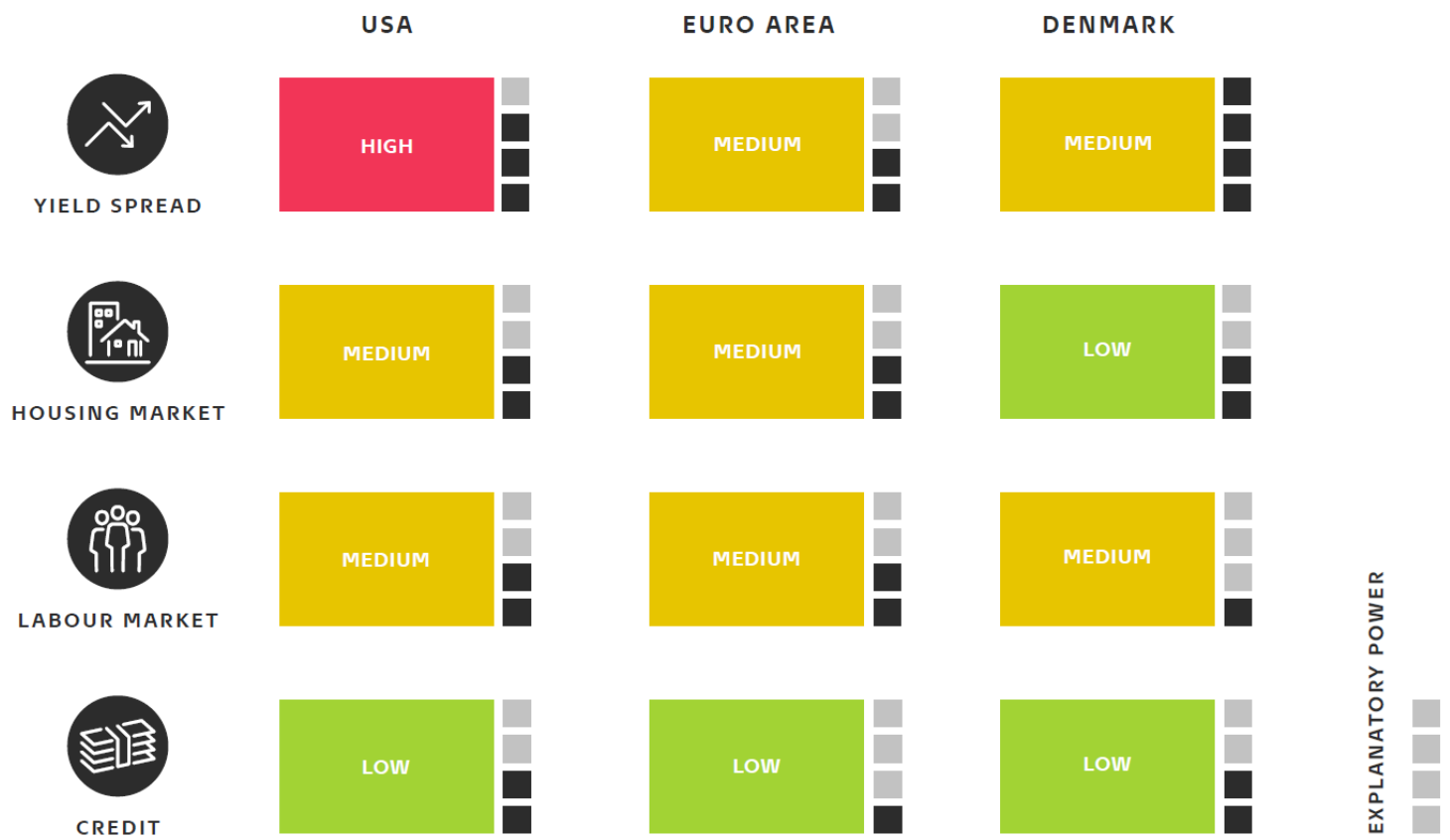
Note: Danmarks Nationalbank's certificate of deposit rate for Denmark (certificate of deposit rate and lending rate are identical until June 2009). Sveriges Riksbank's repo rate for Sweden. Norges Bank's policy rate for Norway. Until 14. October 2008, ECB's main refinancing rate for Finland, and hereafter ECB's deposit rate.

Source: Thomson Reuters Datastream and Danmarks Nationalbank.

Banks' earnings remain high



Heightened risk of a global recession



Note: See "Heightened risk of a global recession" , Danmarks Nationalbank Analysis no.16, 2019, for details.
Source: Nationalbanken.