SPEECH
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AT THE NATIONAL ASSET-LIABILITY
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DANMARKS NATIONALBANK

CHECK AGAINST DELIVERY

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INTEREST RATES – LOW FOR LONG

Thank you very much for the opportunity to speak here today. It is my great pleasure to be able to share with you some of Denmark's experiences with low interest rates, as well as my views on future issues in monetary policy.

Exceptionally easy monetary policy has played a fundamental role in supporting the economic recovery over the past decade. Now, a continued and more robust global upswing is expected to be accompanied by normalisation of interest rates. This development is welcome and has been a long time coming. But the withdrawal from monetary stimulus will also reveal whether vulnerabilities have accumulated in some parts of the financial sector. Further, it will show just how robust our economies are to higher financing costs.

In the following, I will focus on three key messages:

First, I will talk about global growth. My main point here is that while the long-awaited global upturn is gaining strength, growth is not likely to attain pre-crisis levels.

Second, I will discuss the effects of low rates and unconventional monetary policy. Central bank balance sheets have expanded substantially. In Denmark, banks' earnings have been under pressure, although the impact on overall profitability has been limited.

And finally, the pace and timing of policy normalisation will require careful calibration. International spillovers from major central banks are inevitable, especially for small open economies. The final implementation of regulatory reforms and an effective macroprudential policy framework will be essential to containing financial stability risks.

1. Long-awaited global upturn gains strength, but pre-crisis growth rates are likely unattainable
Slide 2: Global economy is strengthening

After a long period of disappointing outturns, global growth is strengthening. Forecasts are now being revised up. Stronger and more broad-based global growth and increasing trade are being supported by private consumption and higher investments. Indicators of consumer and manufacturing sentiment point towards a continued cyclical upswing in the coming years.

Although it may be tempting, policymakers cannot spend time complacently enjoying the long-awaited recovery. One reason is that the cyclical upswing is exactly that … cyclical. Continued higher growth in the medium-term is not a given and potential growth is still deemed lower than pre-crisis levels in many countries. The mantra from international institutions has changed accordingly. Previously, we were reminded not to waste a good crisis. Now, we should not waste a good recovery. Implementation of structural reforms and rebuilding of fiscal buffers are crucial for sustaining growth and preparing for the next downturn. This is especially true, given that monetary policy has been pushed to its limit. Thus, monetary policy cannot be relied upon to provide much further stimulus, should the cycle turn sooner than expected.

As regards structural reforms, progress has been mixed. In Denmark, we are currently reaping the benefits of past reforms to increase the structural supply of labor. This is contributing to a more balanced upswing, compared to the boom and associated overheating in the mid-2000s. So, while structural initiatives are unlikely to affect cyclical outcomes in the short-term, I certainly agree that they are important for a sustained recovery.

Slide 3: Lower growth rates to be expected going forward

But we also have to consider whether we can realistically expect growth rates in advanced countries at pre-crisis levels again. This is unlikely, due to demographic change, among other things. A recent study by Danmarks Nationalbank points to a reduction in GDP per capita by about 0.3 percentage points until 2050, due to the ageing population. Obviously, this should not be an excuse. Continued steps to increase productivity and enhance flexibility in labor markets are important. However, it would seem prudent to set our expectations for future growth realistically, and adjust fiscal forecasts accordingly.

2. Low rates and unconventional monetary policies have supported the economy

Slide 4: Danish monetary-policy rates are closely linked to ECB rates

It has now been ten years since the global financial crisis disrupted the global economy. Looking back today, it has been a very exciting decade – too exciting perhaps – from a central banking perspective.

High public debt levels restrained the fiscal capacity in a number of countries following the financial and economic meltdown. Thus, central banks were more or less left on their own to support economic activity. Consequently, very low and even negative policy rates have become common globally, alongside massive expansions of some central bank balance sheets.

Danmarks Nationalbank was a central bank pioneer when we first cut our deposit rate below zero already in 2012. This was done to offset large capital inflows. As you might already know, the fixed exchange rate policy in Denmark means that our monetary policy rates are exclusively reserved for maintaining the peg against the euro. Therefore, the key monetary policy rate of Danmarks Nationalbank tends to track that of the ECB very closely.

In Denmark, we have had negative rates for some years now. So far, their implications have been far less exciting or radical than some might have expected before entering negative territory. Basically, negative interest rates have just been a continuation of low rates, with strong pass-through to money market rates. However, the financial sector has had to adapt to the new environment.

Negative interest rates have put pressure on banks' earnings
Slide 5: Households are exempt from negative deposit rates

First of all, negative rates have challenged Danish banks' business models. Net interest margins and thereby net interest income have been squeezed. The introduction of negative policy rates has meant that a significant share of bank deposits with Danmarks Nationalbank is currently being remunerated at a rate of -0.65 per cent. While lending rates have mirrored the fall in monetary policy rates, banks have been reluctant to introduce negative deposit rates on household deposits. This likely reflects concerns about reputational risks. In contrast, negative rates have been more widely introduced on corporate deposits.

The spread between short term and long term interest rates is also important for banks' maturity transformation business. The ECB's large scale asset purchases have worked to reduce the spread between long term and short term interest rates. This has made such efforts less profitable for banks.

These declining margins have lowered banks' net interest income significantly. The largest banks have so far been able to compensate by expanding into new business areas, such as wealth management, and by adjusting their fees. Smaller banks typically rely more heavily on deposit funding. For them, the adjustment has been much more difficult.

On the positive side, negative interest rates have contributed to a favourable macroeconomic climate driving loan impairment charges to a minimum. The effect from very low impairment charges is one of the main explanations for the record-high results booked by the largest Danish banks in recent years. These results have been achieved *despite* the pressure from falling interest margins.

Increased resilience of banks should lower the expected return on equity
Slide 6: More resilience and low interest rate: Required return on bank equity can be lowered

With the strengthening of profits in recent years, Danish banks have clearly put the financial crisis behind them. Equally important, we now have a financial sector that is much more robust than prior to the crisis. The financial crisis revealed that many financial institutions were insufficiently capitalised. As a result, some of them were not resilient to the losses incurred in the wake of the crisis and the subsequent market correction. This inability to absorb losses exacerbated the economic downturn. Since then, much has been done to increase the resilience of the financial system, both internationally and in Denmark. For example, capital requirements have been enhanced, and the solvency of Danish financial institutions has improved considerably. This has contributed to a more robust financial system as a whole.

Expected returns are likely to be lower than pre-crisis levels as an effect of higher capitalisation and increased resilience of banks. Especially in a low interest rate environment, the perception that returns on equity should be double-digit is misguided. And setting targeted returns at such high levels may trigger banks to take on far too much risk and create new vulnerabilities for the future. It may take some time for investors to adjust their expectations. They will need to take into account that the risks embedded in banks' shares have declined with increased capitalisation and that banks have become a safer investment.

Central bank balance sheets have expanded markedly
Slide 7: Expanding central bank balance sheets

With interest rates closer to their effective lower bound than ever before, central banks have had to resort to new approaches to achieve the necessary monetary accommodation. These approaches include unconventional measures such as targeted lending operations, asset purchases and forward guidance.

Consequently, several central banks in advanced economies have experienced pronounced balance sheet expansions. This is clear evidence that monetary policy has played a key role during the last decade of crisis management in the global economy.

Usually, variations in the balance sheet of Danmarks Nationalbank reflect changes in our foreign-exchange reserves. And as you probably know, Denmark experienced a massive inflow of currency shortly after the Swiss central bank's decision to abandon the floor on the Swiss franc against the euro. Over the following weeks, we saw unusual turbulence in the Danish foreign-exchange market. So in response, we used our usual measures to defend the peg. We intervened heavily in the FX market by buying euros and selling Danish kroner to meet the elevated demand. In addition, monetary policy rates were significantly reduced. The sizeable intervention caused a sharp increase in FX reserves by almost 15 per cent of GDP in less than two months. As the pressure abated, the level of FX reserves was gradually reversed over the course of 2015 to reach a level of just above 20 per cent of GDP – close to the current level.

We do not have a specific target for the foreign exchange reserves, but it should remain sufficient to support the peg. For example, due to financial turmoil in 2008, Danmarks Nationalbank decided to increase the size of its foreign-exchange reserves in order to signal its commitment to the fixed-exchange-rate policy.

Rising asset valuations in light of easy financial conditions
Let me now move on to the effects of exceptionally supportive monetary policy on financial markets. In the current environment of easy financial conditions, asset valuations and leverage have risen. Asset price in-

creases may reflect improved macroeconomic prospects, but also a search for yield. This has compressed spreads on high-yield debt and reduced risk premia.

Slide 8: Rising house prices in European cities

In Denmark, we are especially focused on risks associated with house price developments. A number of European countries experienced housing bubbles in the years prior to the financial crisis, including Denmark. In the post-crisis period of low rates, real estate prices have again increased rapidly in many countries – from China to Canada to Australia and the Nordics.

In most countries, real house prices in and around larger cities have risen most. To some extent, this reflects various structural factors, such as urbanisation, rising incomes, and supply constraints in some cities. But this could also be an indication of financial recklessness. In Denmark, we are thus paying close attention to house prices in Copenhagen. These prices are beginning to bear some resemblance to levels reached during the bubble in the mid-2000s. However, when taking account of fundamental factors, such as mortgage rates, income levels, and the housing stock, there is no clear sign of a speculative bubble – at least not yet.

In general, house prices should be assessed relative to income levels. This chart shows house prices in several large European cities, relative to GDP per capita. Here, Copenhagen is not currently an outlier. Elevated price levels are a wide-spread issue in European cities, and we have recently seen corrections in Stockholm and Oslo. Price developments should be carefully monitored and appropriately addressed preemptively through, for example, macroprudential measures. In Denmark, we have taken steps, requiring higher financial robustness for buyers in major cities. For sure, housing affordability is also a major social issue to be tackled, but this is largely beyond the remit of central bankers.

3. Normalisation of monetary policy entails risks

Timing of normalisation requires careful calibration

Now, I would like to turn the perspective towards the future. It is evident that we still have a whole range of challenges we need to address.

Going forward, a key stability challenge for central banks will be to manage a balanced exit strategy from easy monetary policy. As output gaps close and unemployment decreases in both the US and the euro area, normalisation is expected to proceed gradually. Synchronisation with economic developments will be critical. Missteps are likely to be followed by abrupt asset price adjustments and financial market disruption. Oppositely, if the normalisation phase is excessively prolonged, build-up of vulnerabilities in the financial system may be exacerbated. Either way, normalisation entails risks. Steady and well-communicated policy tightening will be important to manage market expectations.

In this regard, it will be important to follow developments in government bond markets. The recent correction in equity markets was accompanied by a surge in implied volatility. The increase in implied volatility on long-term German government bonds over the same period was modest, and it remains well below its average level over the past ten years.

Finally, normalisation of monetary policy could be complicated by continued subdued inflation. Recent higher inflation in the euro area seems to be mainly driven by energy prices, while core inflation remains low. The possible flattening of the Phillips curve has received a lot of attention lately. In Denmark, nominal wage growth has remained modest, despite capacity pressures and increasing labour shortages in some sectors. However, real wage growth has been above the historical average since the beginning of 2015.

International spillovers from major central banks are inevitable, especially for small open economies

As the Federal Reserve and the ECB initiate balance sheet normalisation and rate hikes, the effects will be transmitted to other economies because of the high integration of global financial markets. This is not news to you. Both stability and turbulence in financial markets are increasingly synchronised across regions and continents. This is so, even as monetary policy cycles and economic recoveries differ in timing. International spillovers of balance sheet normalisation are thus inevitable and not to be underestimated, if past experience is any guide.

Obviously, the Danish exchange-rate peg can only be maintained because we are willing to implement the same monetary policy stance as the euro area. This is a precondition in a world with international capital mobility. A strong spillover from the ECB's monetary policy to Danish financial conditions is therefore to be expected.

A recent study[1] from Danmarks Nationalbank shows how the ECB's asset-purchase programme had a clear spillover effect on Danish bond mar-

[1] See Jakob Roager Jensen, Jakob Guldbæk Mikkelsen and Morten Spange, The ECB's unconventional monetary policy and the role of exchange rate regimes in cross-country spillovers, *Danmarks Nationalbank Working Paper*, no. 119, August 2017.

kets. Since the beginning of the ECB's QE-programme, the reaction of Danish sovereign bonds has been very much in line with German bonds. This is the case even though no official bond purchases took place in Denmark. Therefore, we should also be prepared for the opposite effect when the ECB starts to roll back its unconventional measures.

In general, small open economies are highly influenced by global monetary policy factors. And it has been confirmed by leading researchers that this applies for countries with fixed as well as floating exchange rates. Therefore, you might say that small open economies to a large degree import the financial conditions set by larger economies.

Spillovers are best mitigated through robust economic policies. Here, it is important for countries to live up to the so-called OHIO principle, keeping their own houses in order. Furthermore, continued international cooperation will be crucial. I would like to conclude my intervention here today with some more detailed comments regarding a specific area where cross-border harmonisation is vital, namely financial regulation.

New regulatory framework is essential for financial stability
Slide 9: A new foundation of financial regulation

Solid capital adequacy is an important component of the new post-crisis regulatory framework. This framework is still in the implementation phase, internationally and in Denmark. In my view, the regulatory framework, which in the EU is based on the single rulebook, rests on three pillars. These pillars address capital, liquidity and resolution. As already emphasised, this means first, ensuring a solid, true and fair capital adequacy position based on the actual risk exposure of banks. Second, we need requirements to ensure healthy liquidity management and stable financing, as included in recent Basel reforms. Last but not least, we need a credible resolution regime. In the European case, we need strict implementation of the EU directive on Banking Recovery and Resolution. This includes setting minimum requirements for own funds and eligible liabilities to be used in the resolution of a bank in troubles. It also includes formulating credible resolution plans for credit institutions. This is all about getting the incentives right. No credit institution should be "too big to fail".

These are well-known areas of progress since the crisis, but we still have some way to go before the new and harmonised regulatory framework is fully in place. There are indeed still bumps on the road. At the current juncture, where the memory of the last financial crisis seems to be fading, it is important that we stay committed to the implementation of the new regulation. This will reduce the likelihood of a new financial crisis with all its detrimental effects on our economy.

If we – through ongoing reforms and implementation of the new rules being adopted in Basel and Brussels – end up delivering on all three pillars of regulation, then I think we have learned our lesson from the crisis well. And once all these measures are in place, we will be ready to take the next step: removing unnecessary red tape by simplifying the remaining part of the regulation and easing some of the administrative burden on banks.

The three-pillar system would leave it to market forces to keep the financial sector in check. As long as banks perform on all three parameters, the credibility and soundness of their balance sheets and business models will ensure their access to necessary capital and funding. And with the resolution regime in place, we no longer need governments to save banks with taxpayers' money.

Conclusion

To conclude, this period of low interest rates and unconventional monetary policy has been fundamental for the economic recovery. While global economic developments are indeed strengthening, we should be prepared for lower growth rates going forward. Structural reforms to lift potential growth and rebuilding of fiscal buffers are important.

Low interest rates have also left a legacy, affecting banks' earnings, central bank balance sheets, as well as asset-price valuations. As normalisation of monetary policy proceeds, we must be ready to carefully manage risks and spillovers. Implementation of regulatory reforms and an effective macroprudential framework will be essential to contain financial stability risks.

Thank you very much for your attention.

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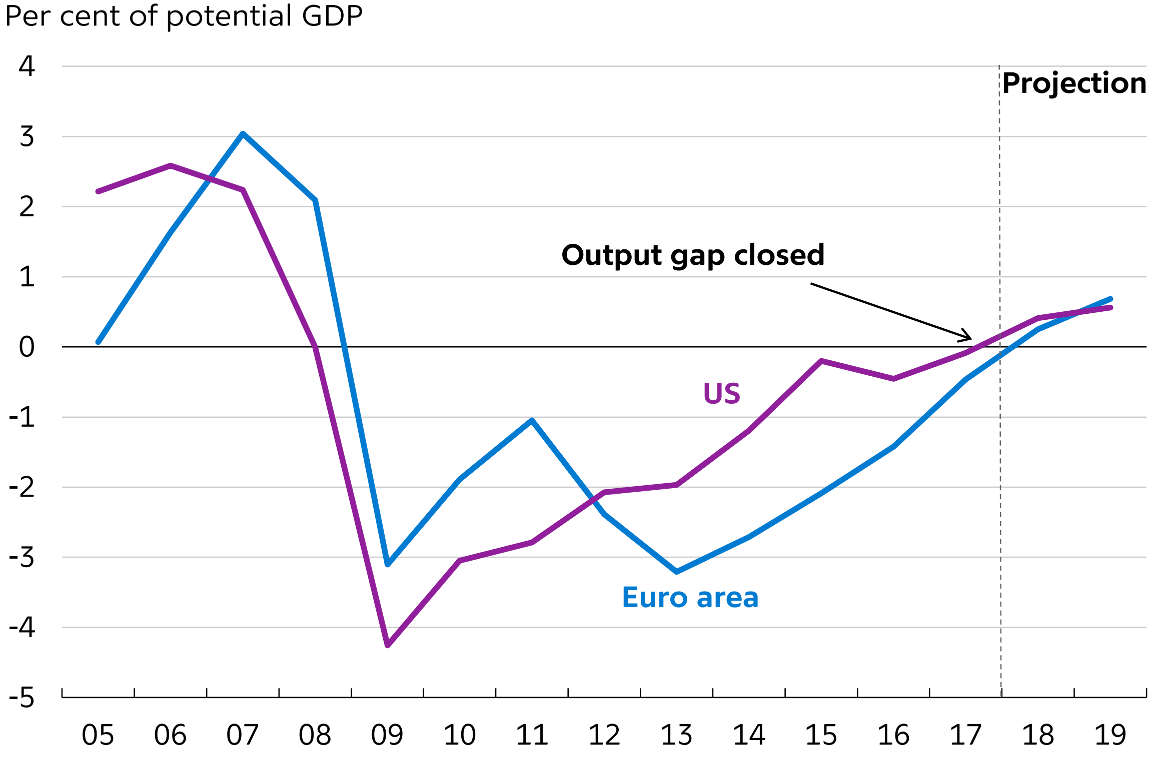
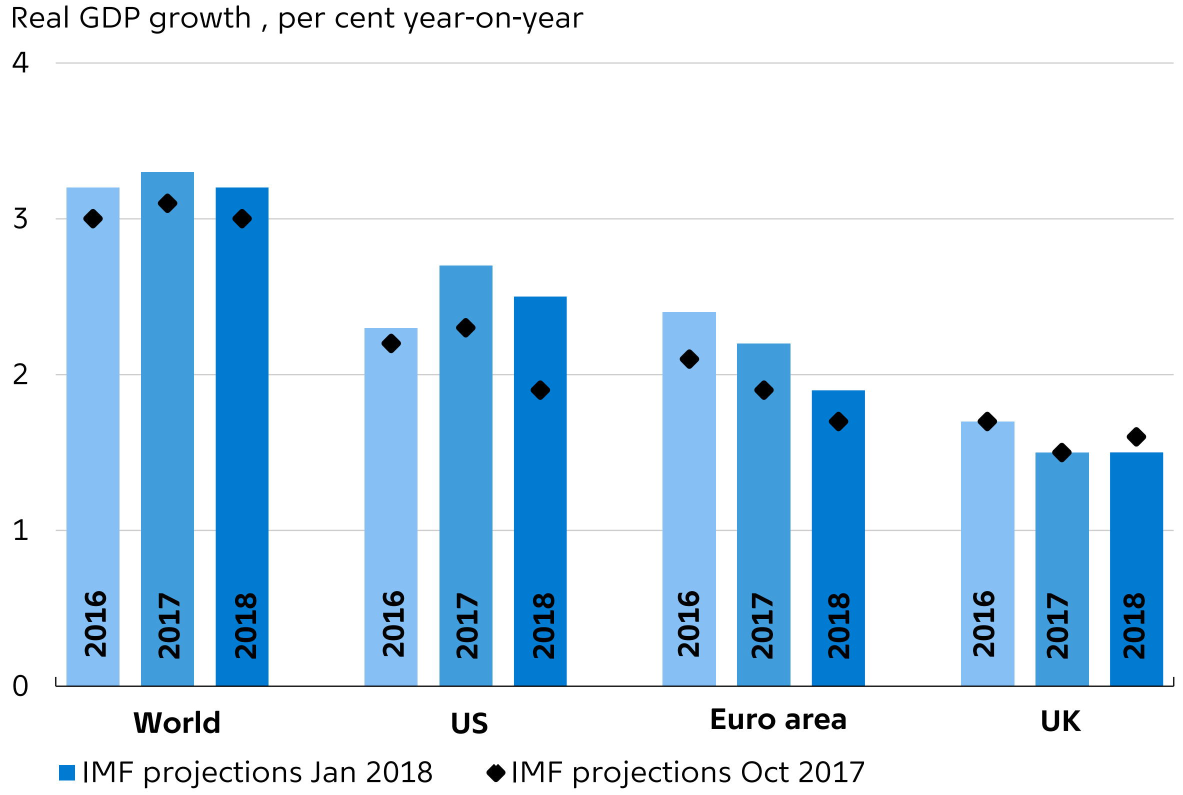
Global economy is strengthening

Positive output gaps in the US and euro area



Upward revisions to economic forecasts



Source: Macrobond and IMF.

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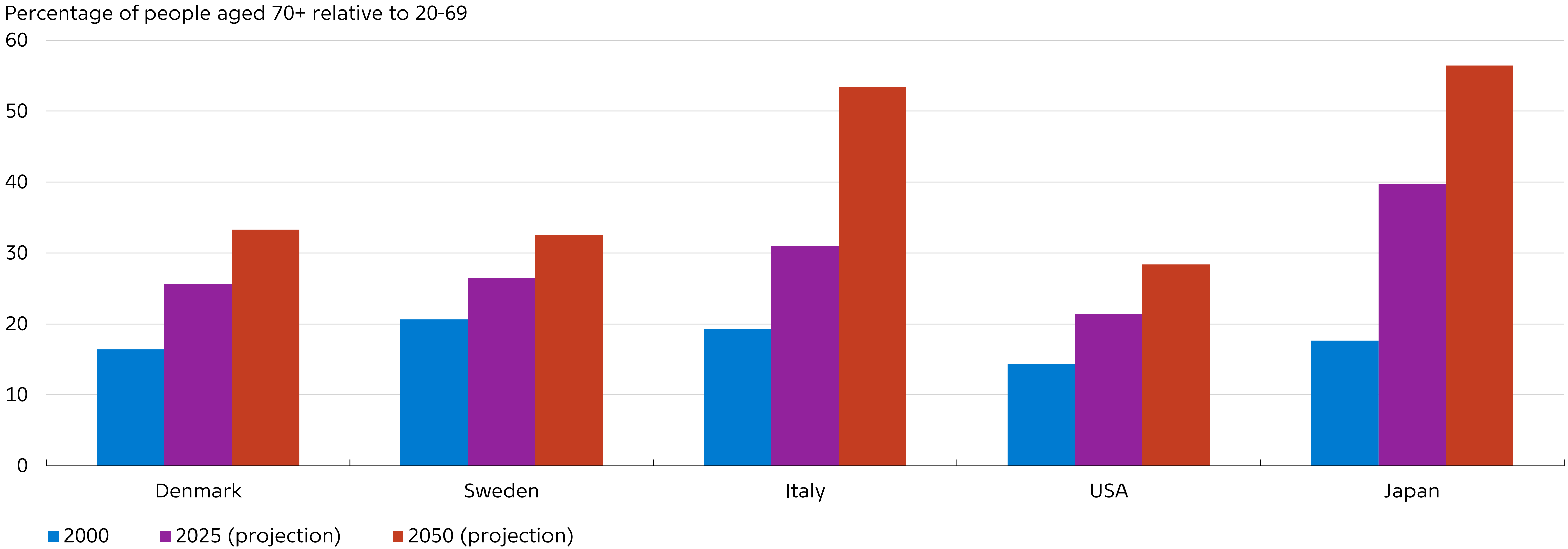
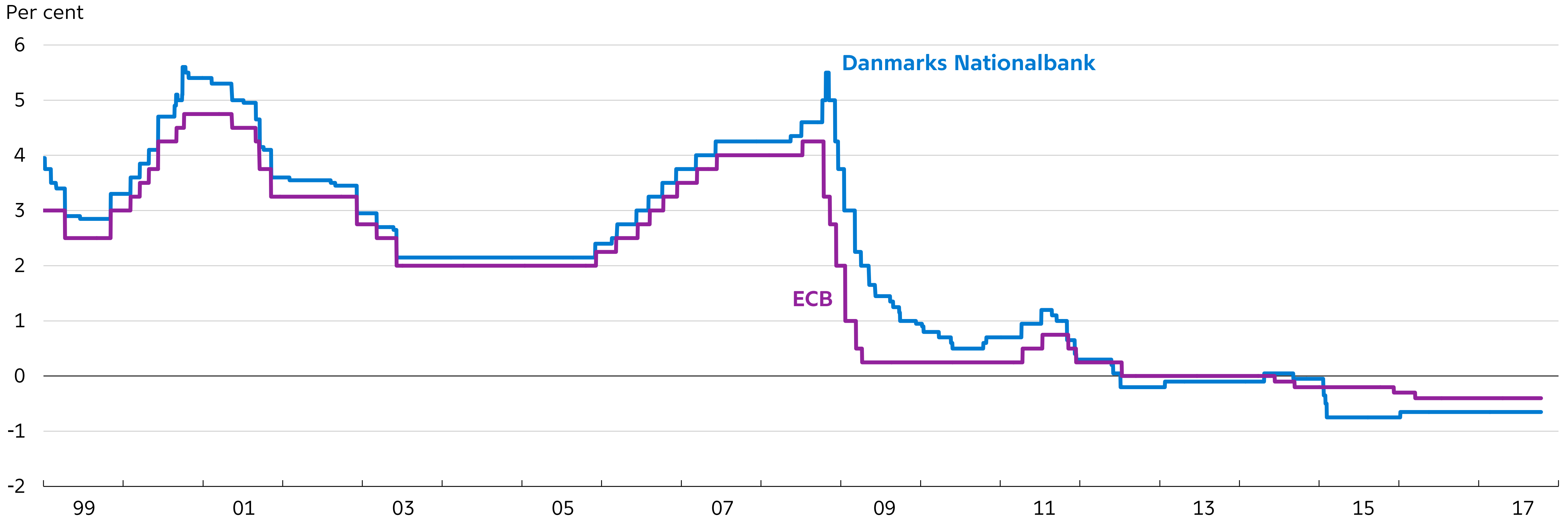
Lower growth rates to be expected going forward

Demographic headwinds to future GDP growth



Source: United Nations Population Division (2017).

Danish monetary-policy rates are closely linked to ECB rates



Note: Key policy rates
Source: Thomson Reuters and Danmarks Nationalbank

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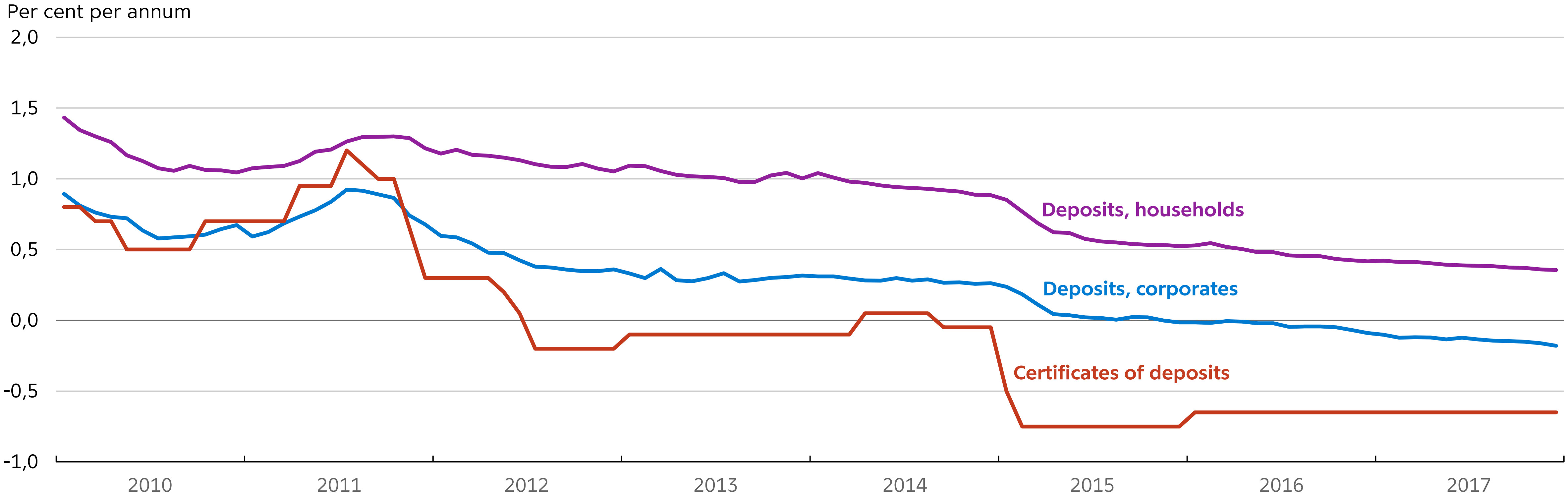
Households are exempt from negative deposit rates



Source: Danmarks Nationalbank.

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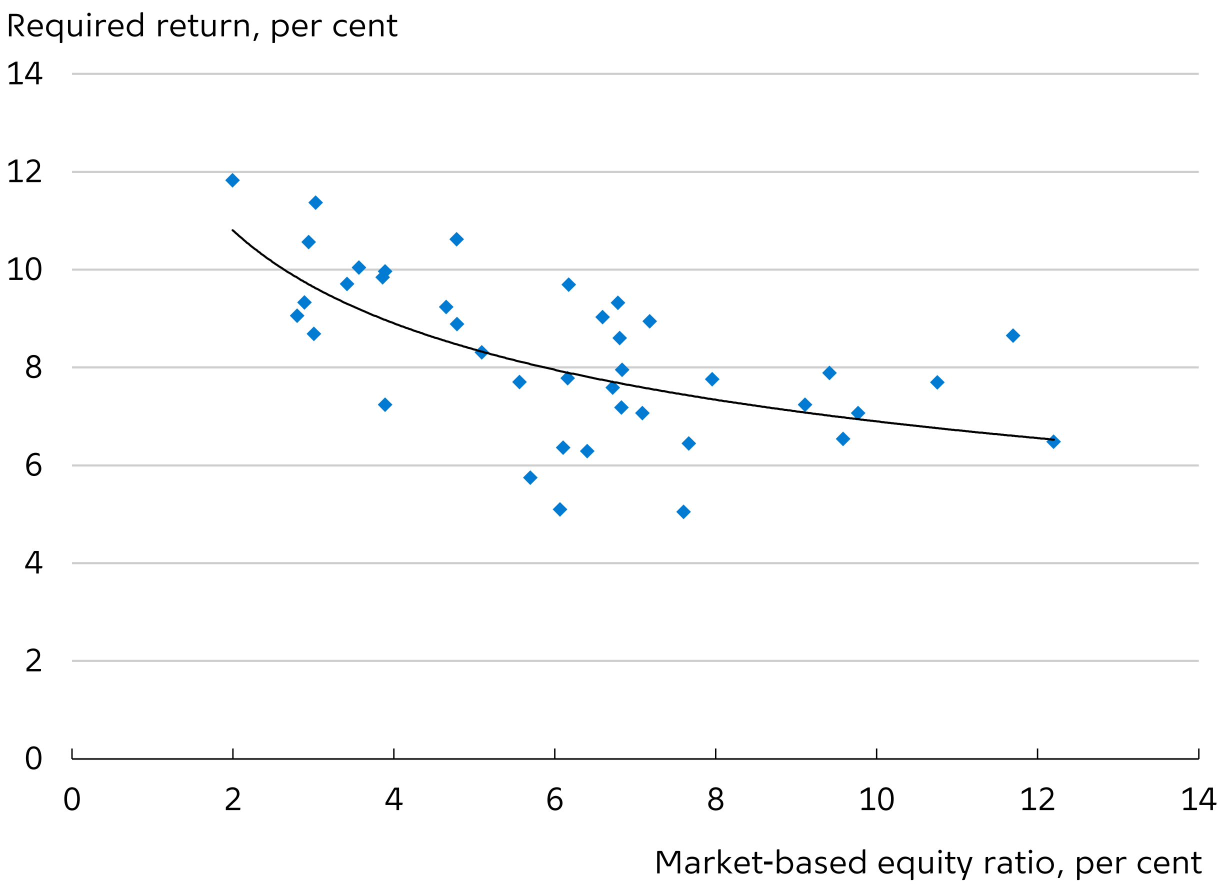
More resilience and low interest rate: Required return on bank equity can be lowered

Equity and required return



Source: Bloomberg, SNL and own calculations.
2017, 3rd quarter.

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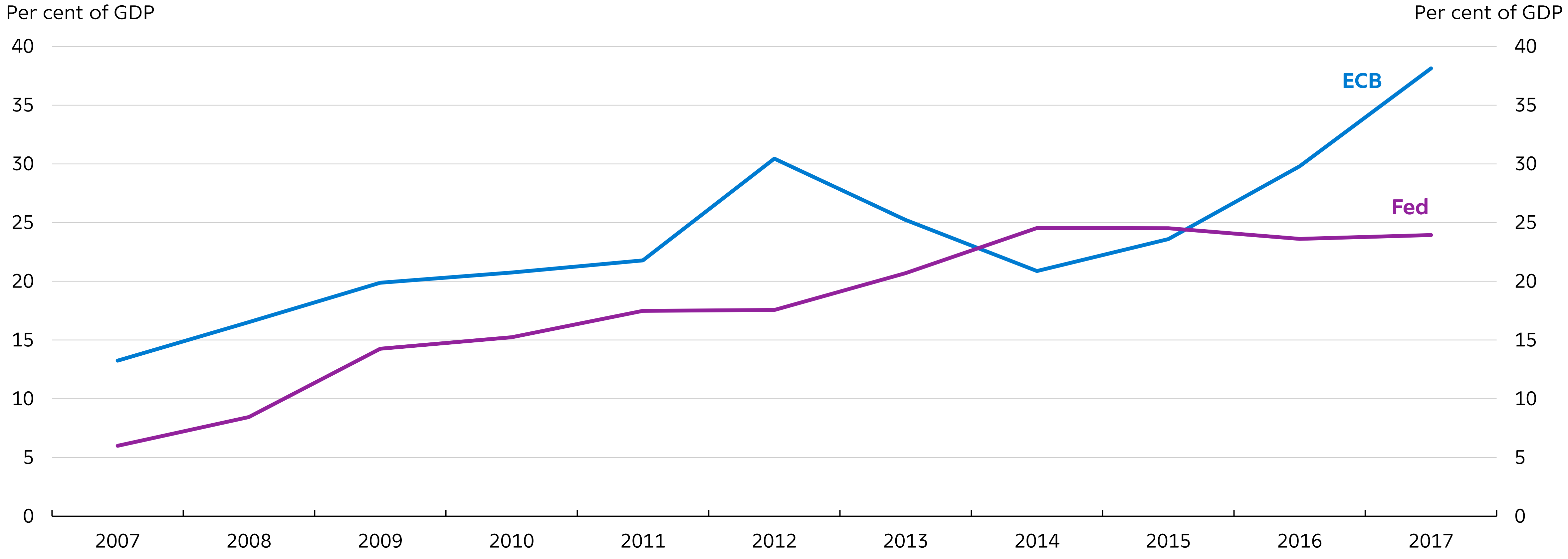
Expanding central bank balance sheets



Source: Macrobond and own calculations.

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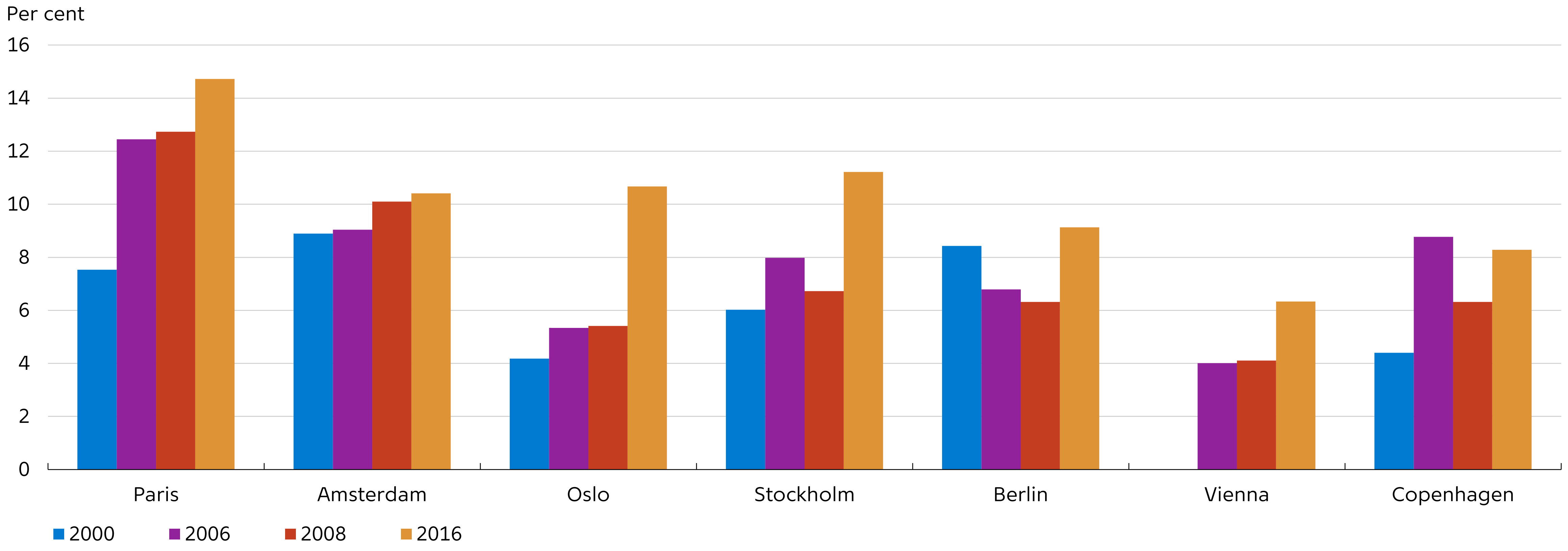
Rising house prices in European cities

Price per square meter, residential flats, per cent of nominal GDP per capita



Source: RIWIS, Statistics Netherlands, Notaires Paris – Ile-de-France, Statistics Denmark, Association of Swedish Real Estate Agents, Real Estate Norway, and Statistics Norway.

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A new foundation of financial regulation