D E C I S I O N

FI Ref. 16-13691

## Decision regarding the countercyclical buffer rate

Finansinspektionen (the Swedish Financial Supervisory Authority) has decided not to amend Finansinspektionen's Regulations (FFFS 2014:33) regarding the countercyclical buffer rate.

### Finansinspektionen's assessment

Lending in the Swedish economy in general is continuing to develop as it has previously. Lending to households continues to grow faster than both nominal GDP and disposable income, but the growth rate has slowed. The rate at which debt is growing is closely linked to the housing market, which has long been characterised by rising prices and high activity. However, recent developments on the housing market indicate that it has cooled slightly. The amortisation requirement may have contributed to this slow-down as well as the slow-down in the rate at which debt is increasing, but it is too early to assess the effects of the amortisation requirement.

Lending to corporates from monetary financial institutions (MFIs) continued to grow at a normal rate, although firms' market funding decreased. Finansinspektionen currently does not see any signs of excessive lending in the business sector.

The forecast for total debt, i.e. for both corporates and households, is that growth will be slower compared to the previous forecast, although the rate at which debt will increase throughout the entire forecast period is still considered to be higher than what is sustainable in the long run. This is primarily because corporate debt is expected to increase faster than normal. Other indicators that Finansinspektionen takes into consideration are showing that the risks associated with the growth in debt have not changed appreciably since Finansinspektionen's decision in September 2016 to leave the countercyclical buffer unchanged. The most recent countercyclical buffer rate was set at 2 per cent and will apply as of 19 March 2017. Given this background, Finansinspektionen see no reason to change the buffer rate now.

**The matter**

Finansinspektionen, in accordance with Chapter 7, section 1 of the Capital Buffers Act (2014:966), shall set a countercyclical buffer guide[1] and a countercyclical buffer rate each quarter.

The countercyclical capital buffer for Sweden was activated on 8 September 2014. The buffer rate was set at 1 per cent and went into effect on 13 September 2015.[2] On 22 June 2015, Finansinspektionen decided to raise the countercyclical buffer rate to 1.5 per cent. This rate has been applied as of 27 June 2016.[3] On 14 March 2016, Finansinspektionen announced a new decision to raise the countercyclical buffer rate to 2 per cent, which will apply as of 19 March 2017.[4]

**Reasoning and considerations**

The purpose of the countercyclical capital buffer is to strengthen the banks' resilience. The countercyclical capital buffer is a time-varying capital requirement. This means that the buffer is activated when there is a risk that financial imbalances, and hence systemic risks, will increase. In an ensuing recession or in the event of major losses for the banks, the buffer requirement may be reduced to counteract tighter lending and thereby alleviate the economic downturn.

Finansinspektionen sets the countercyclical buffer rate for Sweden by means of a qualitative assessment that takes quantitative factors into consideration. The single most important factor is the development of debt among households and firms. Finansinspektionen therefore monitors debt carefully and in particular how it develops in relation to the gross domestic product (GDP) and the disposable income of households. The *buffer guide* is also used as an indicator to assess the level of the buffer rate.

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[1] The buffer guide constitutes the point of departure for Finansinspektionen's assessment of the size of the countercyclical buffer rate.

[2] FI (2014), *Regulations regarding the countercyclical buffer rate*. Published on www.fi.se on 10 September 2014, FI Ref. 14-7010.

[3] FI (2015), *Amendment to regulations regarding the countercyclical buffer rate.* Published on www.fi.se on 23 June 2015, FI Ref. 15-7062.

[4] FI (2016), *Amendment to regulations regarding the countercyclical buffer rate.* Published on www.fi.se on 15 March 2016, FI Ref. 16-742.

*Slightly higher growth in total lending*

The basis for Finansinspektionen's assessment of the cyclical systemic risks consists of the growth in lending to the non-financial sector[5] and in particular in relation to GDP.

Lending to households and corporates in Sweden has, with a few exceptions, increased at a faster pace than nominal GDP since the end of the 1990s (Diagram 1), but during the past year debt has increased at a slower rate than GDP. In Q2 2016, total lending grew at an annual rate of 4.4 per cent, which is slightly higher than in the previous quarter when growth was 3.8 per cent. At the same time, nominal GDP rose by 5.7 per cent. This means that lending in relation to GDP is currently just over 144 per cent.

**1** Total lending and nominal GDP



Source: Statistics Sweden.
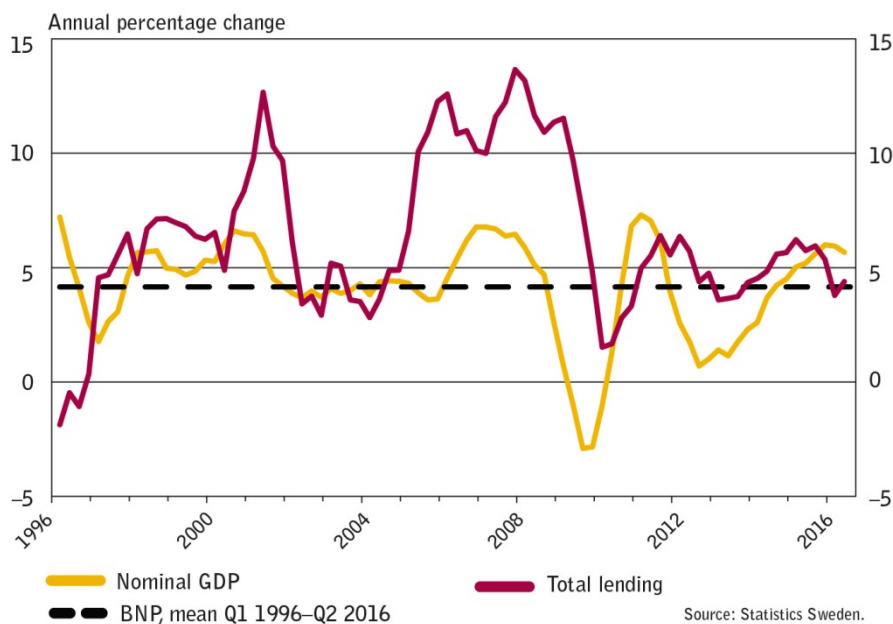
In order to understand what is driving this growth in total lending, it is important to look more closely at how lending to households and corporates has developed.
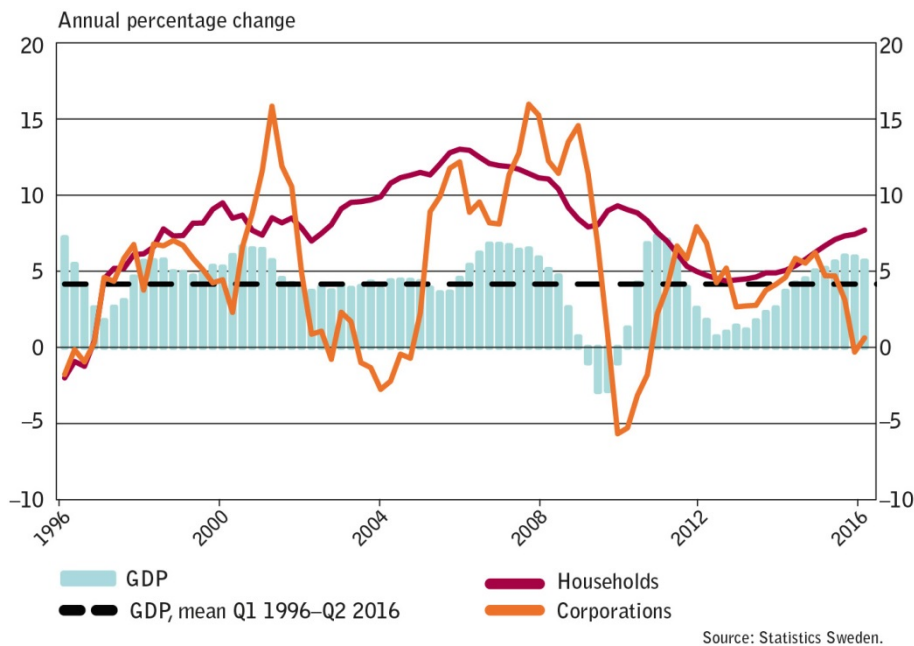
*Growth in lending to households slows*

Lending to households has been increasing at a much higher rate than the growth of the nominal GDP since the end of the 1990s (Diagram 2). This trend continued even in Q2 2016 when the annual growth rate rose slightly to 7.7 per cent. However, monthly statistics from Statistics Sweden show that the growth rate has slowed since the beginning of the summer. In October, growth was 7.3 per cent, which is a decrease of 0.5 percentage points compared to May.[6]

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[5] For Sweden, the measure of total credit to the private sector covers all corporate and household lending issued through monetary financial institutions (MFI) and the total market financing of firms. The market funding of firms has been defined as the value of all outstanding corporate bonds and certificates traded on the fixed-income market.

[6] SCB (2016), *Finansmarkandsstatistik*, October 2016.

Looking exclusively at household mortgages, the annual growth rate was 7.9 per cent in October, which is 0.8 percentage points lower than in May.

**2** Lending to households and corporations, and nominal GDP

Annual percentage change



| | |
|---|---|
| GDP | Households |
| GDP, mean Q1 1996–Q2 2016 | Corporations |

Source: Statistics Sweden.

The growth in household debt reflects the growth in household mortgages since household debt largely consists of mortgages. What happens to house prices is therefore important and a rapid increase in house prices can also lead to a rapid increase in household debt. Swedish house prices have increased sharply in recent years (Diagram 3). Prices have also been rising for a long time at a faster rate than household income, despite the strong growth in disposable income (Diagram B1.1).[7]

At the end of 2015, however, house prices began to slow and during the beginning of 2016 the growth rate slowed considerably. This is probably the result of the amortisation requirement, which entered into force on 1 June.[8] According to Valueguard's price statistics, the annual growth rate for tenant-owned apartments was 6.7 per cent in October 2016. For single-family homes, the corresponding figure was 7.5 per cent. This can be compared to the annual growth rates in January, which were at 16.2 and 13.6 per cent, respectively. However, prices rose again after the summer. It is thus too early to assess the effects of the amortisation requirement.

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[7] Household disposable income increased by 4.5 per cent annually in Q2 2016. This can be compared to household loans, which in the same quarter increased by 7.7 per cent annually.

[8] FI (2016), *Stability in the Financial System*. Published on www.fi.se on 1 December 2016.

**3** House prices in Sweden

Index 100 =January 2005



- Single family homes
- Weighted
- Tenant-owned apartments

Source: Valueguard and FI.
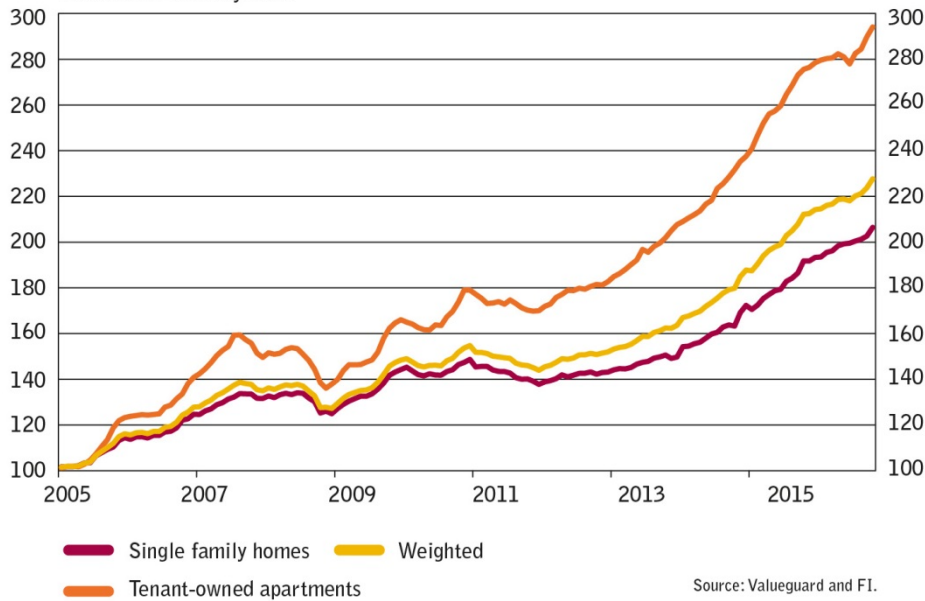
Even though household debt is increasing and households are borrowing more in relation to their income, Finansinspektionen's stress tests show that households are demonstrating strong resilience to higher interest rates, the loss of income and falling house prices.[9] Swedish households in general have sufficient margins for making their payments even given significant disruptions in the economy.

*Some recovery in lending to corporates*

Lending to corporates is low despite Sweden's strong economy. Corporate borrowing, which consists of loans from MFI as well as market funding via bonds and certificates, increased by 0.6 per cent annually during Q2 2016 (Diagram 2). Lending from MFI to non-financial firms increased by 3.5 per cent on an annual basis in Q2 2016, which is higher than the 2.6 per cent growth in the previous quarter. Corporate borrowing via the market continued to decrease during the same period. This decrease amounts to 6.4 per cent on an annual basis, which can be compared to Q1 2016 when it decreased by 7.6 per cent.[10] It should be noted that corporate loans generally display greater variation and grow at a more irregular rate than household debt.

[9] FI (2016), *The Swedish Mortgage Market 2015.* Published on www.fi.se on 14 April 2016, FI ref. 16-3183.

[10] Corporate borrowing via the market should be interpreted with caution since it is marked to market and can be affected by e.g. interest rate fluctuations, even if the activity related to this type of borrowing in general is developing normally.

*Small changes in borrowing by households from MFIs*

As a complement to its analysis of outcomes, Finansinspektionen also uses forecasting models for households' and firms' debts.[11] The forecasts show how the debts could develop over time and help Finansinspektionen plan its work with the countercyclical capital buffer.

The household model contains debt, property prices, the National Institute of Economic Research's (NIER) household confidence (economic activity) and a mortgage rate. The corporate model contains debt, a business tendency indicator (economic activity) from NIER and a corporate borrowing rate.[12] The models' forecasts for individual variables depend on both how the other variables develop and the long-term normal state.[13] The normal state is determined by a combination of judgements and information in data. The normal state for debt in this case assumes that it shall grow in line with nominal GDP.[14] The models are assessed on the basis of their forecasting performance and how well the estimated correlations between the variables coincide with economic theory. In the analysis that is presented here, the models are based on outcomes up to and including Q3 2016. This time GDP outcome is used up until Q2 2016, which means one outcome more than in the previous forecast. The forecasts for debt are conditional on the NIER's macroeconomic assessment in October 2016.[15]

Compared to the forecasts presented in Finansinspektionen's decision regarding the countercyclical buffer rate in September 2016, the GDP outcomes have been close to the forecast, and NIER has presented a similar forecast for GDP growth in 2016 and 2017 in its wage formation report as it did in June (Diagram 4).

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[11] For a description of the approach and the household model, see FI (2015), *A Model for Household Debt*, FI Analysis No. 4. Published on www.fi.se on 1 December 2015.
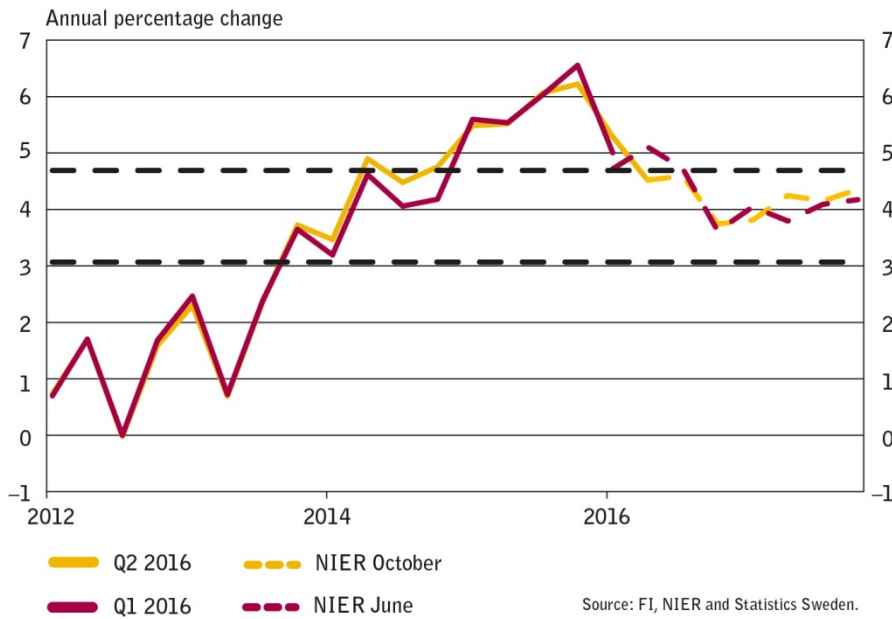
[12] Finansinspektionen also uses a model that joins together GDP, wages and the repo rate with the variables included in the two models, see *ibid*. for more information.

[13] The normal state is the growth that the model's variables will demonstrate in the long run.

[14] The model estimates a 95-per cent probability interval for the normal state of annual GDP growth to be between 3.6 per cent and 5.0 per cent.

[15] National Institute of Economic Research, *Wage formation report 2016*, October 2016.
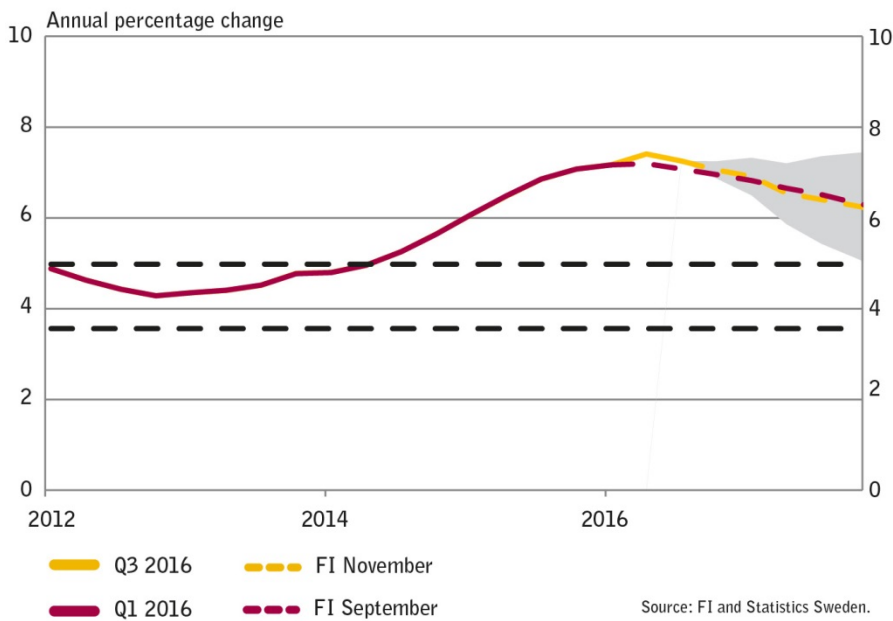
**4 Nominal GDP**

Annual percentage change



| | |
|---|---|
| ▬ Q2 2016 | ▬ ▬ NIER October |
| ▬ Q1 2016 | ▬ ▬ NIER June |

Source: FI, NIER and Statistics Sweden.

Note: The area between the black dotted lines shows a 95-per cent probability interval for growth of nominal GDP in a normal state.

Household debt is growing faster than the normal state during the entire forecast period (Diagram 5). Moreover, the forecast for the rate of increase in household debt is largely unchanged since the previous forecast occasion. The debt outcomes were somewhat higher than expected in 2016, but this has been counteracted in the forecast by lower outcomes and forecasts for real estate prices.
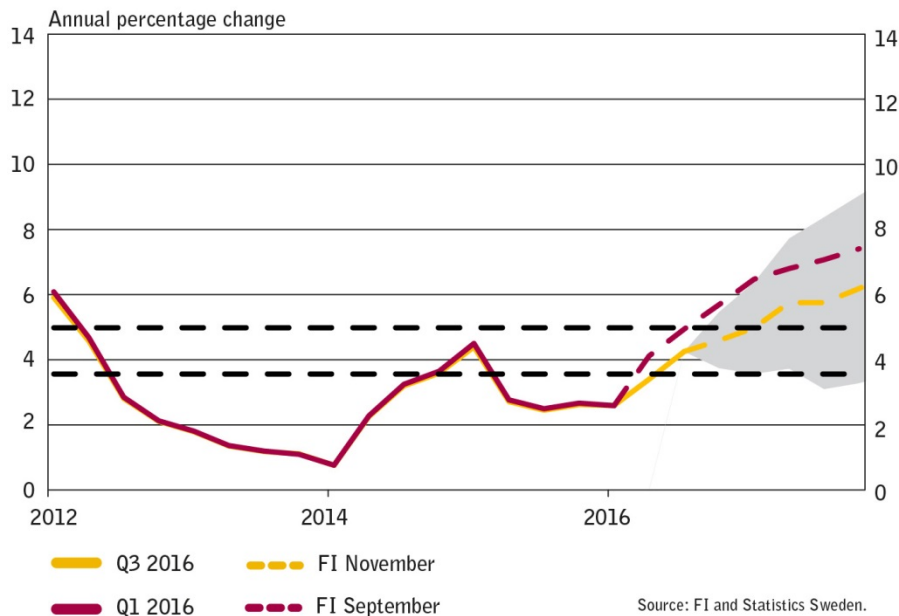
**5 Households' nominal debt**

Annual percentage change



| | |
|---|---|
| ▬ Q3 2016 | ▬ ▬ FI November |
| ▬ Q1 2016 | ▬ ▬ FI September |

Source: FI and Statistics Sweden.

Note: The gray area shows a 68-per cent probability for the current forecast. The area between the black dotted lines shows a 95-per cent probability interval for growth of nominal GDP in a normal state. September refers to the forecast from the decision regarding the countercyclical buffer rate from September 2016.

Corporate borrowing from MFI, according to the model estimation, is more sensitive to interest rates than household debt, and the low interest rate explains why debt is growing in 2016 and 2017 (Diagram 6). The forecast for corporate debt is lower than the forecast in September due to the fact that the outcomes were lower than in the forecast. Corporate debt is expected to grow faster than normal in 2017.

**6** Corporates' nominal debt (MFI)

Annual percentage change



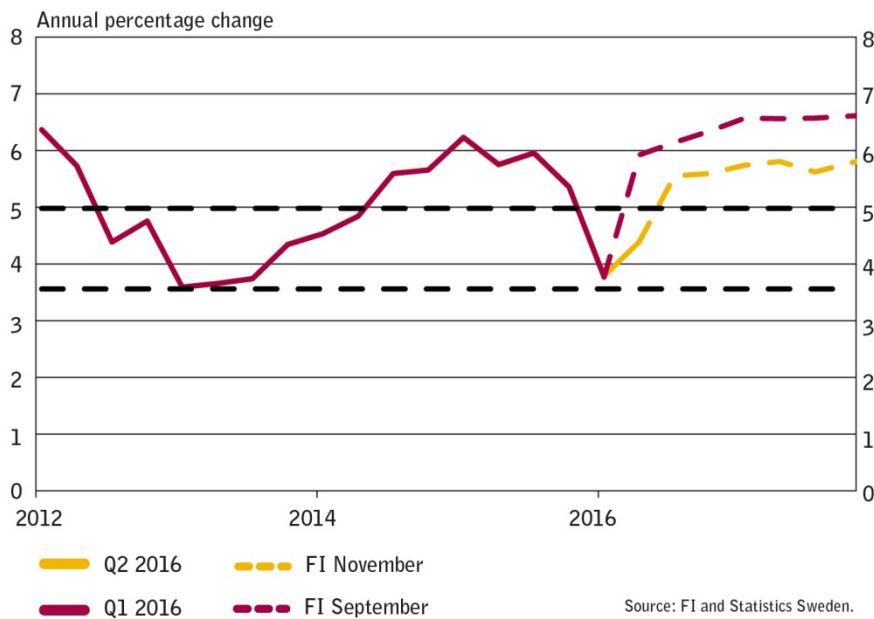| | | |
|---|---|---|
| — Q3 2016 | - - - FI November | |
| — Q1 2016 | - - - FI September | Source: FI and Statistics Sweden. |

Note: The gray area shows a 68-per cent probability for the current forecast. The area between the black dotted lines shows a 95-per cent probability interval for growth of nominal GDP in a normal state. September refers to the forecast from the decision regarding the countercyclical buffer rate from September 2016.

The current forecast predicts that total debt will increase at a slower rate than in the previous forecast (Diagram 7). This is because of the downward revision in firms' MFI debts and that forecasts for market funding are weaker. In the forecast for market funding, we assume that it will grow at a rate corresponding to the average of the past four quarters. The average for Q2 2016 was 0 per cent in annual change, which is 4 percentage points lower than during the first quarter. However, total debt growth is still above the level of long-term sustainable growth during the entire forecast period.

**7 Total nominal debt**

Annual percentage change



| Q2 2016 | FI November |
| Q1 2016 | FI September |

Source: FI and Statistics Sweden.

Note: The area between the black dotted lines shows a 95-per cent probability interval for growth of nominal GDP in a normal state. September refers to the forecast from the decision regarding the countercyclical buffer rate from September 2016.

## *Buffer guide and other indicators*

In addition to debt levels, Finansinspektionen also monitors a number of other indicators that offer a comprehensive overview of the systemic risks. The buffer guide is one of these indicators and serves as the point of departure for Finansinspektionen's assessment of how large the countercyclical buffer should be.
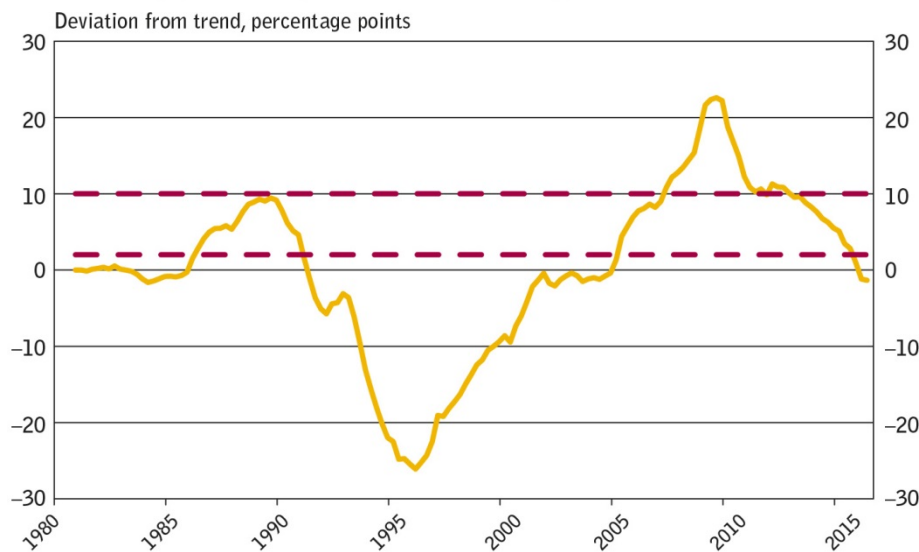
The buffer guide is based on the credit-to-GDP gap, which specifies how much the total lending to households and corporates in relation to GDP deviates from its estimated, long-term trend. The credit-to-GDP gap is considered to be a useful indicator for when to activate and raise the countercyclical buffer rate. However, the credit-to-GDP gap is considered to be less useful for determining when the buffer should be deactivated. With regard to reducing the buffer rate, therefore, other indicators are recommended, such as financial stress indicators.[16] It is important to keep in mind that the buffer guide is an indicator; there is no mechanical link between the guide and the level of the countercyclical buffer.

Finansinspektionen calculates the buffer guide in accordance with the Basel Committee's (BCBS) standardised approach, which is based on the credit-to-GDP gap.[17] According to this approach, the credit-to-GDP gap is estimated at -1.34 per cent in Q2 2016 (Diagram 8).

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[16] ESRB (2014), *Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options*, Occasional Paper No. 5.

[17] For more information about the standardised approach, see FI (2014), *Regulations regarding the countercyclical buffer rate*. Published on www.fi.se on 10 September 2014, FI Ref. 14-7010.

**8** Credit gap according to the standardised approach

Deviation from trend, percentage points



Note: The dotted lines show the thresholds (2 per cent and 10 per cent, respectively) which, under the standardised approach, are used to convert the credit gap into a buffer guide.

Sources: FI and Statistics Sweden.

The size of the credit-to-GDP gap is converted into a buffer guide. A credit-to-GDP gap that is below the lower threshold of 2 per cent gives a buffer guide of 0 per cent (Diagram 9).

**9** Buffer level according to standardised approach

Per cent
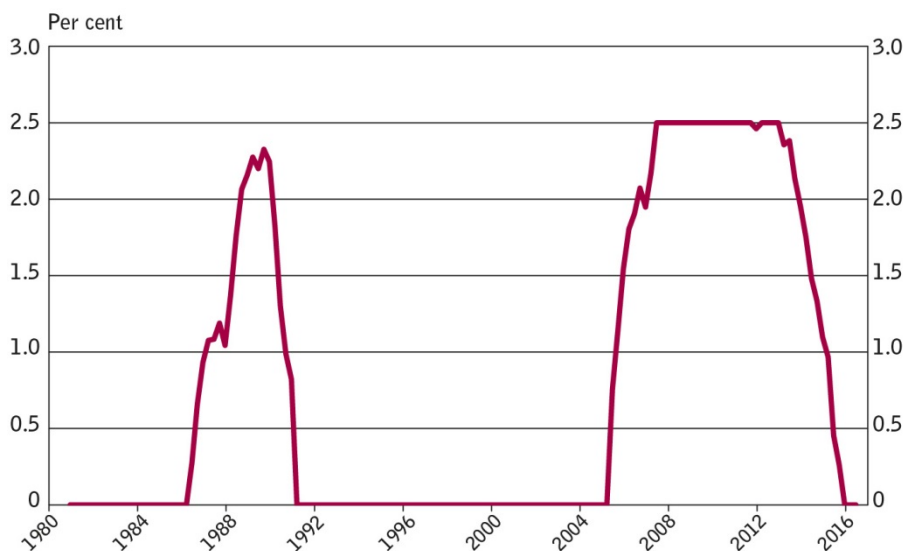


Source: FI and Statistics Sweden.

Additional indicators to determine the countercyclical buffer rate include house prices in relation to disposable income, the current account and financial savings in the public sector as a share of GDP, bank capital levels, interest-to-income ratios of households and developments in real equity prices.[18] These indicators show in general that there are no major changes compared to the previous quarter. Banks' resilience has continued to improve in that both

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[18] Appendix 1 provides diagrams of the trend for these indicators.

capital requirements and the actual own funds increased by more than one percentage point since the previous quarter.[19]

**Conclusion**

Finansinspektionen decided in September 2016 not to change the countercyclical buffer rate. The analysis in this decision shows that the risk outlook has not changed appreciably since the decision in September. Total lending growth increased slightly in Q2 2016 but the rate of growth continues to be lower than nominal GDP growth. Developments on the housing market indicate that growth there has slowed somewhat, which could be due to the entry into force of the amortisation requirement in June. Other indicators used as a basis for the assessment of the risk outlook are also not giving any indication that the systemic risks have increased. However, total lending in general and household debt in particular have increased for a long period time, which motivates the current level of the buffer rate. Given this, the countercyclical buffer rate should not be changed.

Finansinspektionen

Sven-Erik Österberg
*Chairman of the Board of Directors*

Matilda Gjirja
*Senior Analyst*

A decision in this matter was made by the Board of Directors of Finansinspektionen (Sven-Erik Österberg, Chair, Maria Bredberg Pettersson, Sonja Daltung, Marianne Eliason, Anders Kvist, Astri Muren, Hans Nyman, Gustaf Sjöberg and Erik Thedéen, Director General) following a presentation by Senior Analyst Matilda Gjirja. Charlotte Rydin (Chief Legal Counsel) and Henrik Braconier (Chief Economist) also participated in the final procedure.
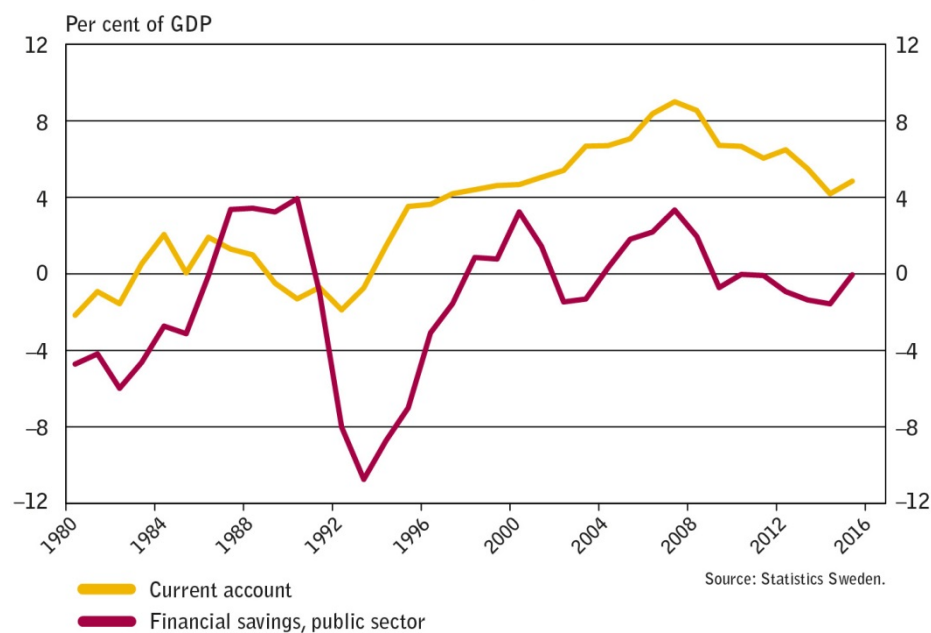
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[19] See also FI (2016), *The Swedish Banks' Capital Requirements, Q3 2016*. Published on www.fi.se on 25 November 2016, FI Ref. 16-7882.
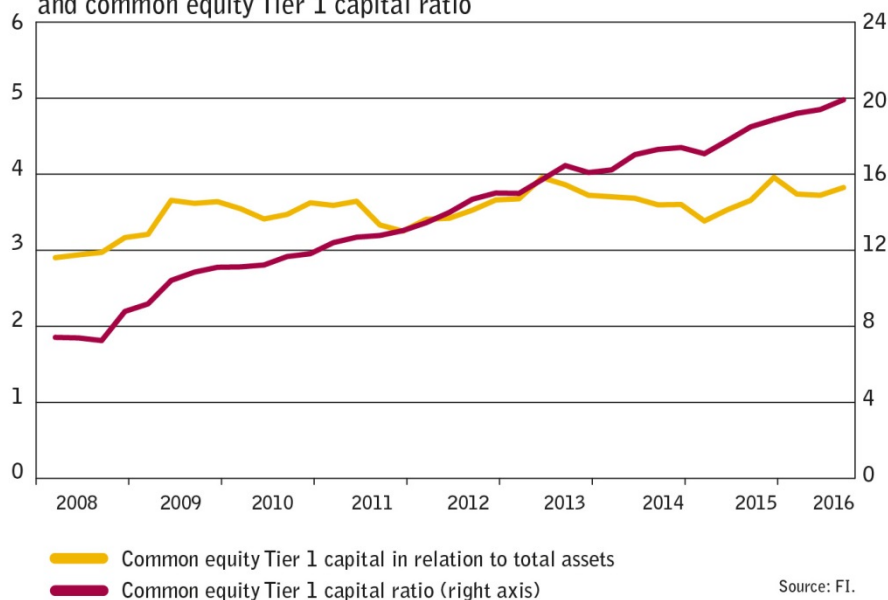
# Appendix 1: Diagrams

**A 1.1** House prices in relation to disposable income

Index 100 = 1980
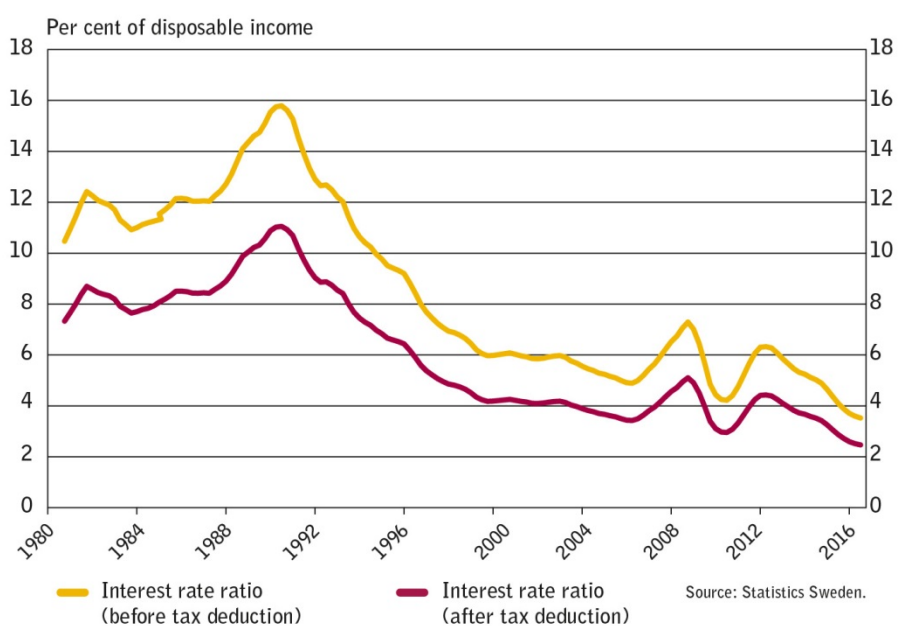
Mean, Q4 1975–Q2 2016

Source: Statistics Sweden.
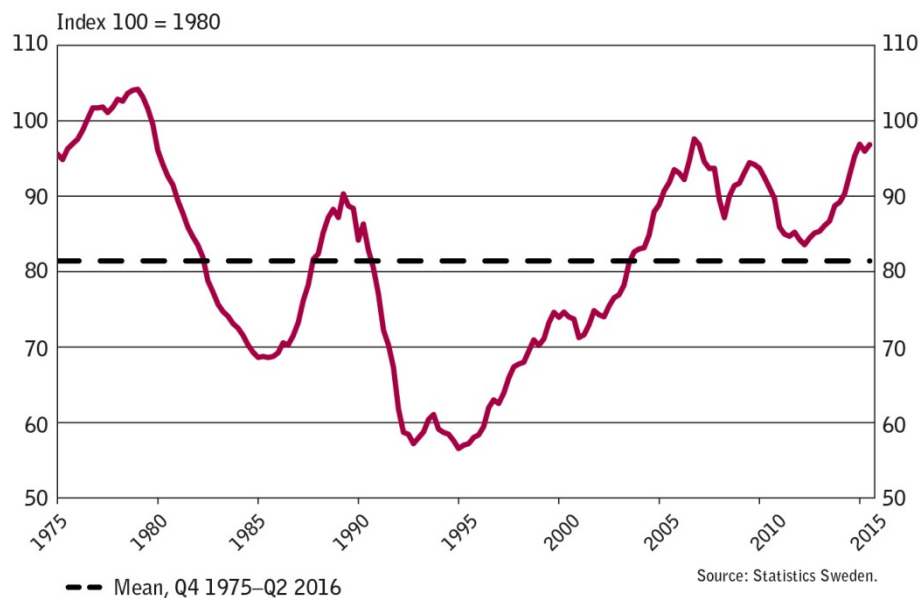
**A 1.2** Current account and financial saving in the public sector

Per cent of GDP

Current account

Financial savings, public sector

Source: Statistics Sweden.

**A 1.3** Common equity Tier 1 capital in relation to total assets and common equity Tier 1 capital ratio



— Common equity Tier 1 capital in relation to total assets
— Common equity Tier 1 capital ratio (right axis)

Source: FI.

**A 1.4** Interest rate ratio of households

Per cent of disposable income



— Interest rate ratio (before tax deduction)
— Interest rate ratio (after tax deduction)

Source: Statistics Sweden.

**A 1.5** Real equity prices

Index 100 = 1987



Note: Real equity prices have been calculated by deflating the OMX by CPIF.

Source: Statistics Sweden and Reuters Datastream.