

D E C I S I O N



FI Ref. 16-4407

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## **Decision regarding the countercyclical buffer rate**

Finansinspektionen (the Swedish Financial Supervisory Authority) has decided not to amend Finansinspektionen's Regulations (FFFS 2016:15) regarding the countercyclical buffer rate.

### **Finansinspektionen's assessment**

Lending in the Swedish economy in general is continuing to follow the same trend. Lending to the household sector is growing faster than both nominal GDP and disposable income. Growth in debt is closely linked to the housing market, which demonstrated a higher level of activity during the spring. Growth in house prices, however, slowed at the start of the year, which could be partly attributable to the amortisation requirement that entered into force on 1 June 2016 and is also expected to slow growth on the housing market and, consequently, household debt.

Lending to corporates from monetary financial institutions (MFIs) continued to grow at a normal rate, although firms' market funding decreased. This could in part be due to the turbulence on the financial markets at the end of 2015 and the beginning of 2016, which may have affected investors' willingness to and opportunities for investing in corporate bonds. Firms may also have had less of a need for funding. Finansinspektionen currently sees no clear signs that significant imbalances are building up in the corporate sector.

Forecasts of total debt, i.e. for both firms and households, are implying that debt will grow at a slower rate in the future compared to previous forecasts, but growth in total debt is still judged to be above a level that is sustainable in the long run for the entire forecast period, primarily because the rate at which household debt is growing is expected to decrease slowly while corporate debt is expected to increase more rapidly. Other indicators that Finansinspektionen has taken into consideration indicate that the risk profile has more or less remained the same since Finansinspektionen's decision in March 2016 to raise the countercyclical buffer. The decision made then to raise the countercyclical buffer rate to 2 per cent will first apply on 19 March 2017. Given this, Finansinspektionen sees no reason to change the buffer rate now.

## The case

In accordance with Chapter 7, section 1 of the Capital Buffers Act (2014:966), Finansinspektionen shall set a countercyclical buffer guide<sup>1</sup> 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 was applied as of 13 September 2015.<sup>2</sup> On 22 June 2015, Finansinspektionen announced a decision to raise the countercyclical buffer rate to 1.5 per cent. This rate will be applied as of 27 June 2016.<sup>3</sup> On 14 March 2016, Finansinspektionen reached a new decision to raise the countercyclical buffer to 2 per cent, which will be applied as of 19 March 2017.<sup>4</sup>

## Reasoning and considerations

The purpose of the countercyclical capital buffer is to strengthen the resilience of banks and ensure that the banking system as a whole has sufficient capital to sustain the flow of credit to households and corporations in situations when shocks to the financial system could cause a credit crunch. 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 an indicator used to determine the level of the buffer rate.

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<sup>1</sup> The buffer guide constitutes the point of departure for Finansinspektionen's assessment of the size of the countercyclical buffer rate.

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

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

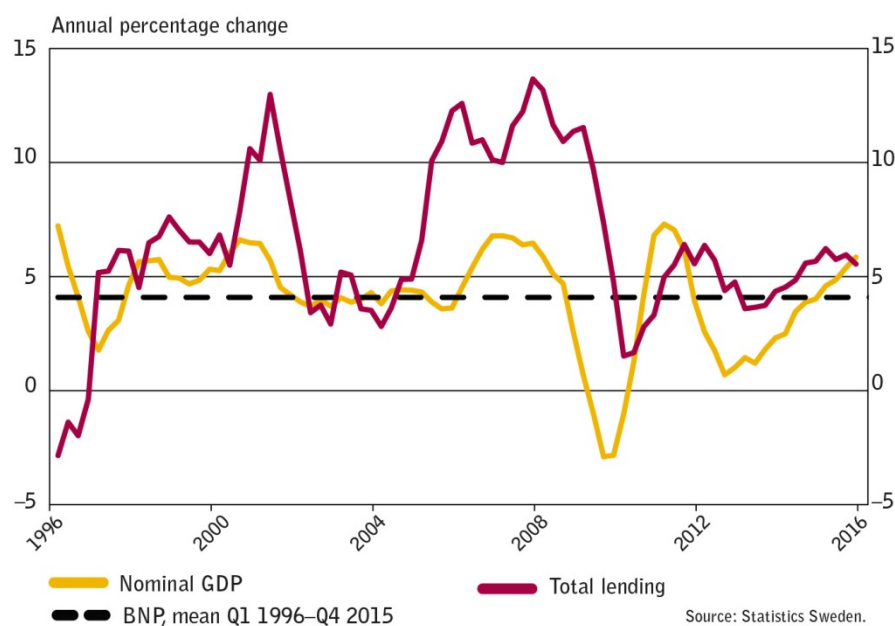
<sup>4</sup> FI (2016), *Amendment to regulations regarding the countercyclical buffer rate*. Published on [www.fi.se](http://www.fi.se) on 15 March 2016, FI Ref. 16-742.

### ***Slightly weaker growth in total lending***

The basis for Finansinspektionen's assessment of the cyclical systemic risks is the growth in lending to the non-financial sector<sup>5</sup> and how this growth relates to the GDP.

Lending to households and corporates in Sweden has increased at a faster pace than nominal GDP for the past five years (Diagram 1). In 2015, however, this gap gradually decreased and in Q4 2015 debts increased at a slightly lower rate than GDP. This means that lending in relation to GDP decreased slightly, and is currently at 146 per cent.<sup>6</sup>

#### **1 Total lending and nominal GDP**



In order to understand growth in total lending, it is important to look more closely at how lending to households and corporates has developed over time.

### ***Continued strong growth in lending to households***

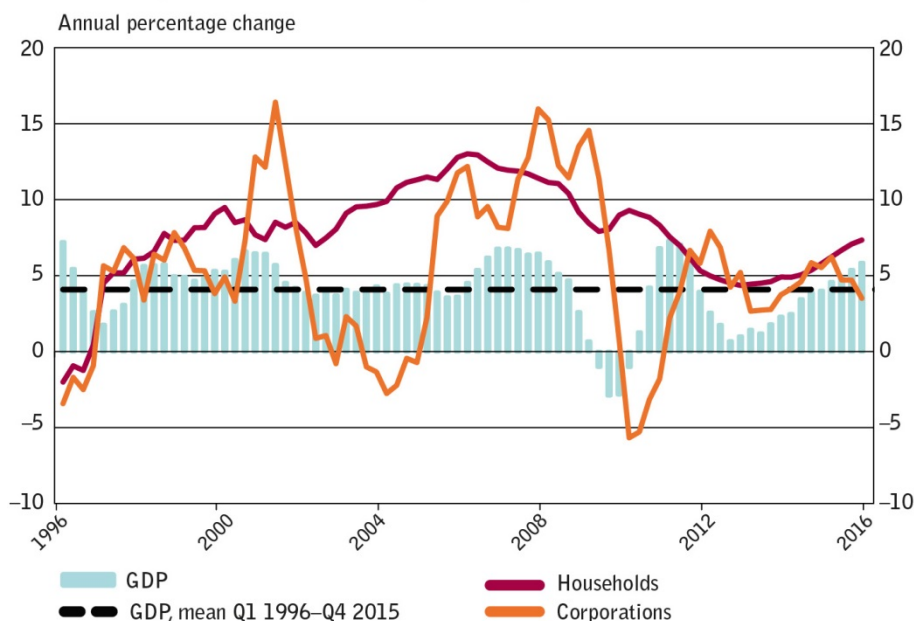
Lending to households has been increasing at a much higher rate of growth than nominal GDP since the end of the 1990s (Diagram 2). This upward trend continued in Q4 2015 and the annual growth rate amounted to 7.3 per cent. The annual growth rate is also continuing to rise. In April 2016, household debt

<sup>5</sup> For Sweden, the measure of total credit to the private sector covers all corporate and household lending issued through monetary financial institutions (MFIs) and the total market funding 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.

<sup>6</sup> In Q4 2015, total lending grew at an annual rate of 5.5 per cent, which is lower than in the previous quarter when growth amounted to 6.0 per cent. During the same quarter, nominal GDP grew by 5.9 per cent, up from 5.4 per cent the previous quarter.

increased by 7.7 per cent on an annual basis, which is the highest rate of growth since October 2010.<sup>7</sup>

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



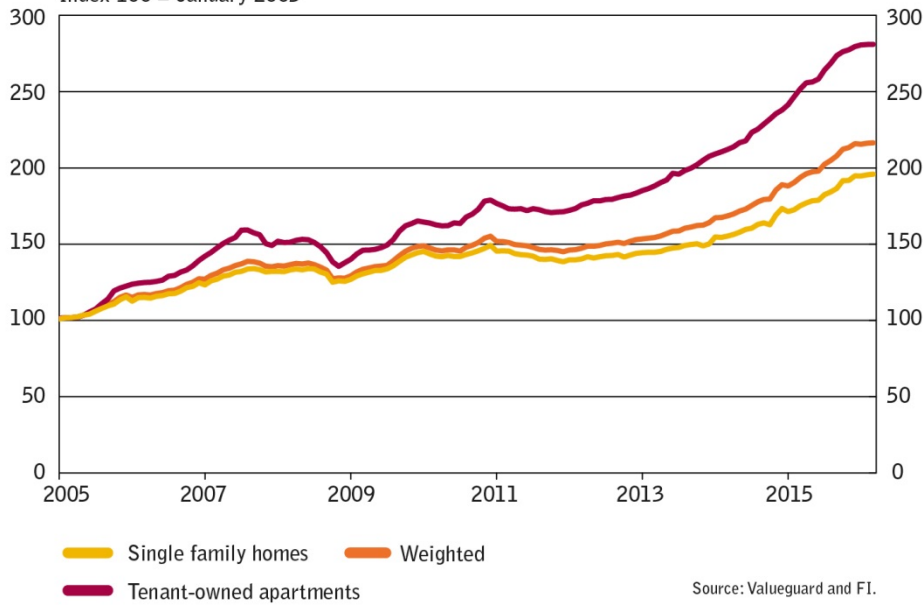
Household debt consists primarily of mortgages, which means that house prices are important for household debt since a rapid increase in house prices could lead to a rapid increase in household debt. Swedish house prices have increased sharply in recent years (Diagram 3), even if this growth has slowed since the end of 2015. According to Valueguard's price statistics from April, the annual rate of growth was 10.4 per cent for tenant-owned apartments and 12.1 per cent for single-family dwellings.<sup>8</sup> This is a high rate of growth, although the levels have fallen from the levels in the autumn of 19 and 17 percent, respectively.

<sup>7</sup> SCB (2016), *Finansmarknadsstatistik*, April 2016.

<sup>8</sup> Figures from Statistics Sweden show that the prices of single-family dwellings rose 11 per cent on an annual basis during the three-month period March–May 2016 compared with the same period the previous year. Figures from Mäklarstatistik also show that house prices in general rose during the spring. Over the three-month period February–April 2016, prices of tenant-owned apartments rose by 3 per cent and single-family dwellings by 5 per cent compared with the previous period, November 2015–January 2016. Year-on-year, the price change is 13 per cent for tenant-owned apartments and 11 per cent for detached houses.

### 3 House prices in Sweden

Index 100 = January 2005



Higher house prices are thus an important contributory factor to the increase in lending to households. House prices are also high in relation to household income (Diagram B 1.1). Because house prices and thus household debt have risen faster than income over a long period of time (Diagram 4), the aggregate debt-to-income ratio – total household debt in relation to total disposable income – has increased and is just under 180 per cent.

### 4 Lending to households and nominal disposable income

Annual percentage change



For household mortgages exclusively, the annual growth rate in April was 8.5 per cent. This marks a clear jump since April 2015, when the corresponding figure was 7.0 per cent. Before the new amortisation regulations entered into force, it was reported that many households had opted to either purchase a new home or increase their existing mortgage, for example in order to pay for renovations. It remains to be seen if this development will slow now that the amortisation requirement is in place. There are also signs that the housing market is entering into a calmer phase. According to reports from banks and real estate agents, both loan applications and housing advertisements have decreased since the amortisation requirement went into effect on 1 June. Finansinspektionen has previously made the assessment that the amortisation requirement could lead to a fall of approximately 5 per cent in demand for housing, which in turn could slow the growth of house prices and thus also the growth of household debt.<sup>9</sup>

Even though household debt has been increasing rapidly for a long period of time, the historically low interest rates have meant that household interest-to-income ratios – interest expenses as a percentage of household disposable income – have decreased significantly since the beginning of the 1990s. The average interest-to-income ratio is currently at its lowest level in more than 35 years (Diagram B 1.4), and after interest rate deductions it amounts to 2.5 per cent. Furthermore, based on Finansinspektionen's stress tests, Swedish households are demonstrating strong resilience to higher interest rates, a loss of income and falling house prices.<sup>10</sup> Even though households are borrowing more in relation to their income, in general they have sufficient margins for making their payments even if interest rates were to rise. In recent years the share of households with smaller margins has also shrunk. On the whole, Finansinspektionen finds that Swedish households have good resilience, and the risks of major credit losses linked to household indebtedness remain low. Household indebtedness therefore represents primarily a macroeconomic risk.

### ***Lower growth in lending to corporates***

At present, Finansinspektionen sees no clear signs that significant imbalances are building up in the corporate sector. In total, lending to corporates increased by 3.5 per cent during Q4 2015, which is slower than both Q3 and the nominal GDP (Diagram 2).

Lending from MFIs to non-financial firms increased by 2.7 per cent in Q4 2015, which is slightly faster than in Q3. The latest monthly figures from Statistics Sweden also show that lending to corporates has begun to accelerate. The annual growth rate was 4.9 per cent in April, which is an increase of 0.7 percentage points compared to March.

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<sup>9</sup> See FI (2016), *Regulations regarding the mortgage amortisation requirement*. Published on [www.fi.se](http://www.fi.se) on 20 May 2016, FI Ref. 14-16628.

<sup>10</sup> FI (2016), *The Swedish Mortgage Market*. Published on [www.fi.se](http://www.fi.se) on 14 April 2016, FI Ref. 16-3183.

The market for borrowing through bonds and certificates has become an increasingly important source of funding for non-financial firms in recent years. Market funding makes firms less dependent on banks and thereby less sensitive to disruptions in the banking sector. At the same time, however, firms may become more sensitive to disruptions in the securities markets. Growth in firms' market funding amounted to 5.7 per cent in Q4 2015, which is significantly lower than in Q3, when it was just over 10 per cent. This can be explained by a number of factors, but a negative market climate is considered to be the dominant reason.

### ***Downward revision of forecasts for corporate debt***

As a complement to its analysis of outcomes, Finansinspektionen also uses forecasting models to predict the trends for household and corporate debt.<sup>11</sup> The forecasts indicate how debt could develop over time and help Finansinspektionen plan its work with the countercyclical capital buffer.

The household model contains debt, property prices, consumer confidence (economic activity) and a mortgage rate. The corporate model contains debt, a business tendency indicator (economic activity) and a corporate borrowing rate. The models' forecasts for each variable depend partly on how the other variables develop and partly on a long-term normal state.<sup>12</sup> This normal state is a combination of judgement and information in data. The normal state for debts in this case assumes growth in line with nominal GDP.<sup>13</sup> 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 Q1 2016.<sup>14</sup> The forecasts for debts are conditional on the National Institute of Economic Research's (NIER) macroeconomic assessment in March 2016.<sup>15</sup>

Compared to the forecasts presented in Finansinspektionen's Decision Memorandum on the countercyclical buffer rate published in March 2016, actual GDP was higher than the forecast, and NIER revised downward its assessment for GDP growth in 2016 and 2017 (Diagram 5).

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<sup>11</sup> 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](http://www.fi.se) on 1 December 2015.

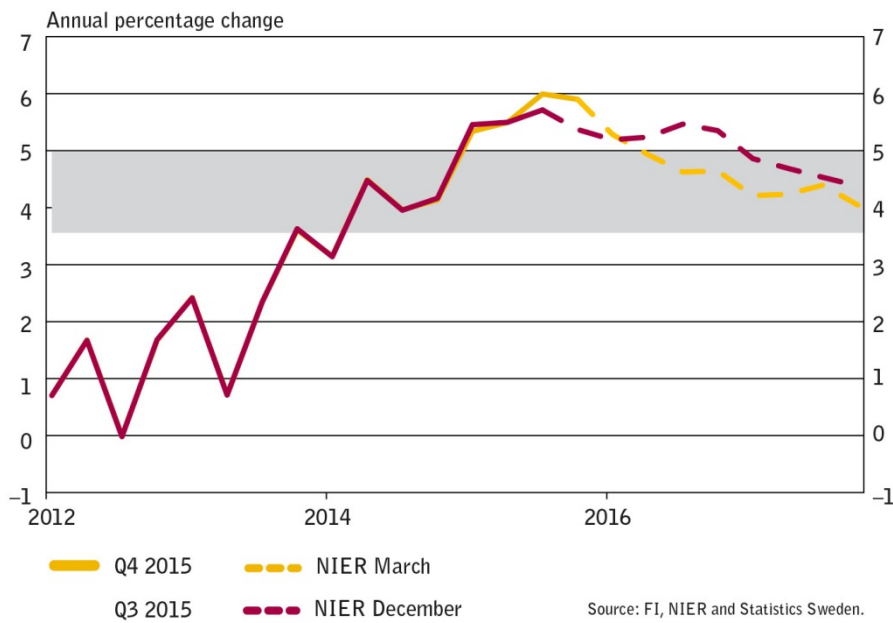
<sup>12</sup> The normal state is the growth that the model's variables will demonstrate in the long run.

<sup>13</sup> 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.

<sup>14</sup> Corporate and household debt (MFI) includes Q1 2016.

<sup>15</sup> National Institute of Economic Research, *Konjunkturläget*, March 2016.

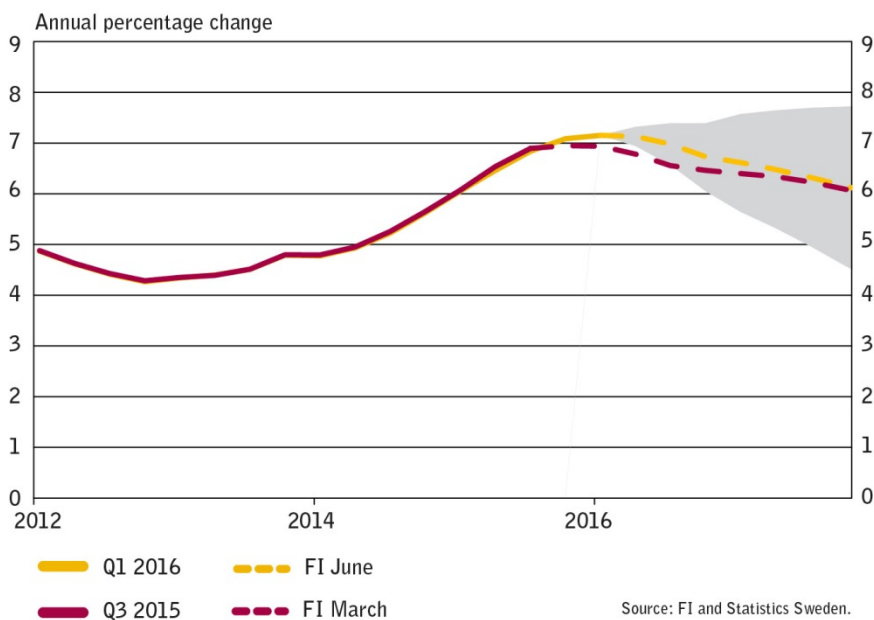
### 5 Nominal GDP



Note: The gray area shows a 95-per cent probability interval for growth of nominal GDP in a normal state.

Household debt is growing faster than normal during the entire forecast period (Diagram 6). The prognosis for the rate of increase in household debt has been revised slightly upward in the short term since the previous forecast occasion. This is because the outcome since the last forecast was higher than expected.

### 6 Households' nominal debt



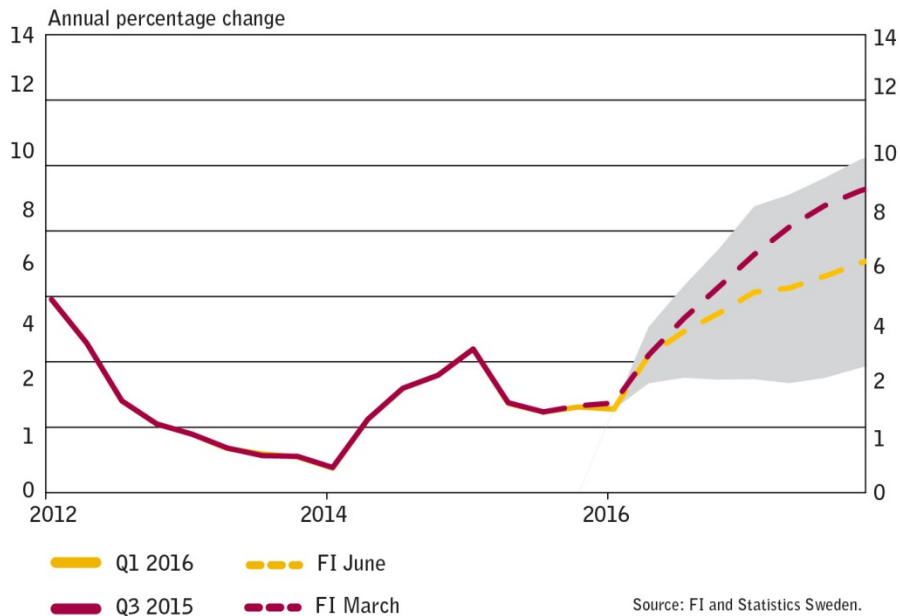
Note: The gray area shows a 68-per cent probability interval for the current forecast. March refers to the forecast from the Decision Memorandum regarding the countercyclical buffer rate from March 2016.

Corporate debt, according to the model estimation, is more sensitive to interest rates than household debt, and the low interest rate explains why debt growth is



accelerating during 2016 and 2017 (Diagram 7). Due to the NIER’s lower GDP forecast, corporate debt has been revised downward compared to the forecast in March. Corporate debt is growing faster than normal during the entire forecast period.

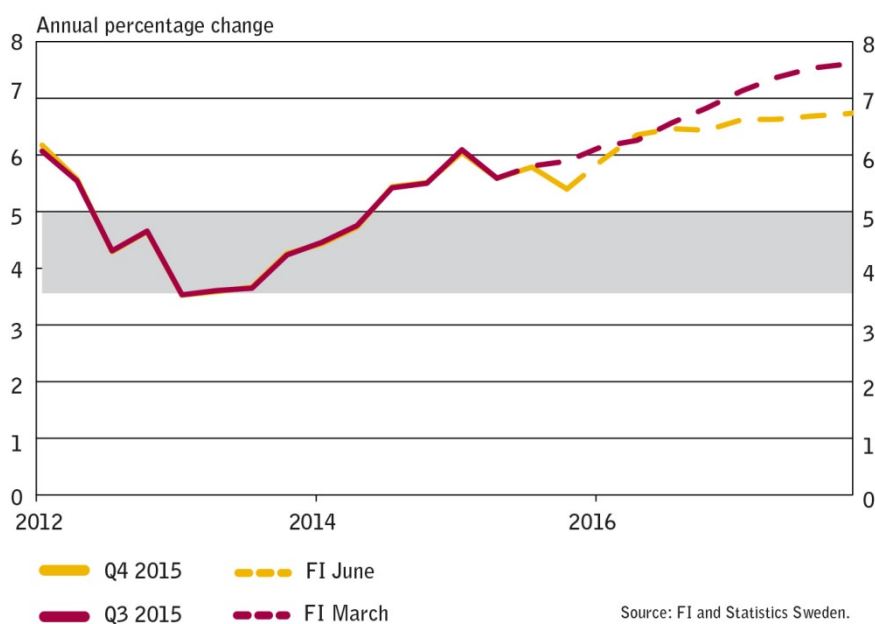
**7 Corporates’ nominal debt (MFI)**



Note: The gray area shows a 68-per cent probability interval for the current forecast. March refers to the forecast from the Decision Memorandum regarding the countercyclical buffer rate from March 2016.

As a whole, total debt is increasing slower in the current forecast than in the previous forecast (Diagram 8). This downward revision is due to the slow actual growth in market funding and NIER’s new GDP forecast, which generates weaker growth in 2017. However, total debt growth is still above the level of long-term sustainable growth during the entire forecast period.

## 8 Total nominal debt



Note: The gray area shows a 95-per cent probability interval for the growth in nominal GDP in a normal state. March refers to the forecast from the Decision Memorandum regarding the countercyclical buffer rate from March 2016.

### *The buffer guide and other indicators*

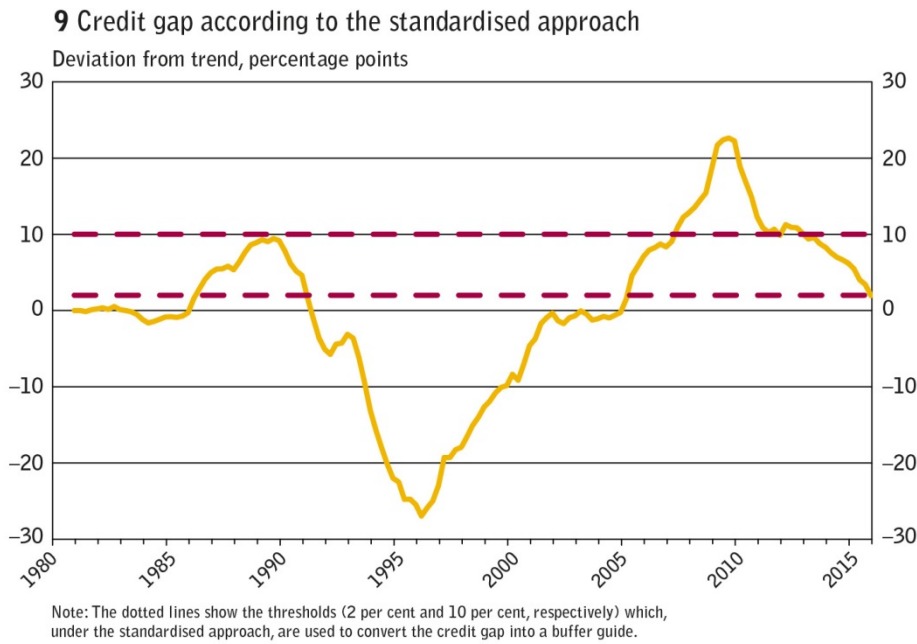
In addition to debt levels, Finansinspektionen also monitors a number of other indicators that offer a comprehensive overview of systemic risks. One of these indicators is the buffer guide. The guide serves as the point of departure for how Finansinspektionen determines the size of the countercyclical buffer.

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 long-term estimated trend. The credit-to-GDP gap is considered to be a useful indicator for when to activate and raise the countercyclical buffer guide. However, the credit-to-GDP gap is considered to be less useful for determining when the buffer should be released. With regard to reducing the buffer rate, therefore, other indicators are recommended, such as financial stress indicators.<sup>16</sup> There is thus no mechanical link between the guide and the level of the countercyclical buffer.

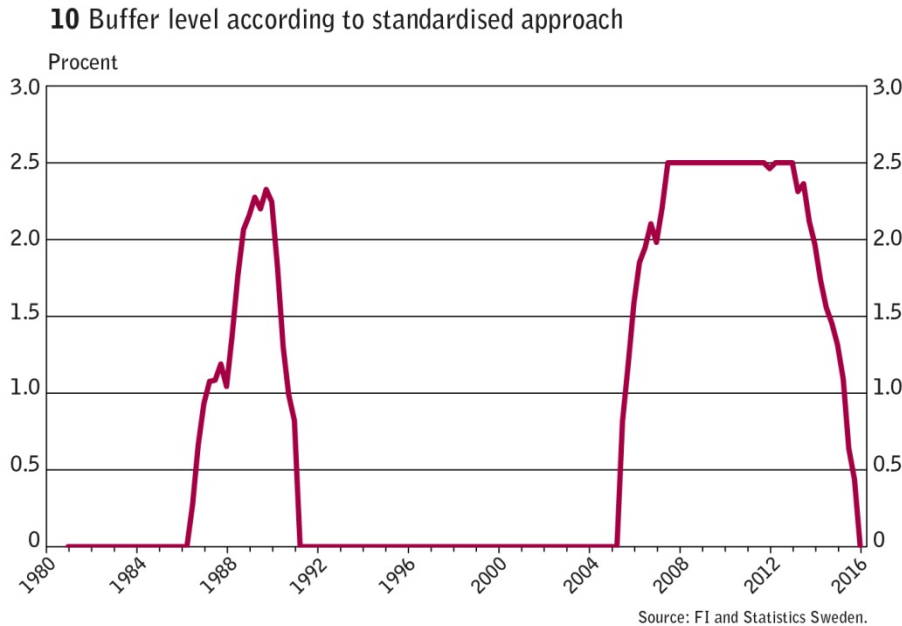
Finansinspektionen calculates the buffer guide in accordance with the Basel Committee's (BCBS) standardised approach, which uses the credit-to-GDP gap as its basis.<sup>17</sup> The method estimates the credit-to-GDP gap to be 1.96 per cent in Q4 2015 (Diagram 9).

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

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



The size of the credit-to-GDP gap is converted into a buffer guide using a formula for the relationship between the credit-to-GDP gap and the buffer guide. A gap that falls below the lower threshold of 2 per cent gives a buffer guide of 0 per cent (Diagram 10).



Finansinspektionen monitors additional indicators that are judged to be relevant for setting the countercyclical buffer rate in Sweden. These indicators 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 ratio of households and developments in real equity prices.<sup>18</sup>

Finansinspektionen is of the opinion that banks are continuing to demonstrate stable capital levels (Diagram B 1.3).<sup>19</sup> The major banks' common equity Tier 1 (CET 1) capital increased by SEK 2.7 billion to SEK 571 billion. In addition to previously decided capital requirements, Finansinspektionen adopted new methods in May for the banks' risk weights and capital requirements.<sup>20</sup> These methods will be used in the supervision of the banks' internal models for exposures to corporates. The change in methodology will result in higher risk weights<sup>21</sup> and capital requirements for Swedish banks. The risk weights will also subsequently become more stable over time, which will improve financial stability.<sup>22</sup>

Both the current account and the public sector's financial savings improved in 2015 as a percentage of GDP. A large surplus in the current account and stable public finances indicate that the Swedish economy is facing relatively small risks (Diagram B 1.2). The downturn in real share prices that started at the end of last year continued in the beginning of 2016. This reflects investors' uncertainty regarding developments in the global economy in general and in China in particular. However, the market rose again over the past two months (Diagram B 1.5).

## Conclusion

Finansinspektionen decided in March 2016 to raise the countercyclical buffer to 2 per cent to boost the resilience of the banks. This decision was based on the high credit growth that primarily has been driven by continued rapid and strong lending to households. FI made the assessment then that high house prices, low interest rates and strong economic growth in Sweden would further boost credit growth and consequently result in greater systemic risks.

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<sup>18</sup> Appendix 1 provides diagrams of the trend for these indicators.

<sup>19</sup> See also FI (2016), *The Swedish banks' capital requirements, first quarter 2016*. Published on [www.fi.se](http://www.fi.se) on 26 May 2016, FI Ref. 16-7882.

<sup>20</sup> The methods require that the banks should assume that at least every fifth year is a downturn year when calculating the probability of default. Finansinspektionen is also introducing a maturity floor of 2.5 years for the banks that use the advanced IRB approach. For more information, please refer to <http://www.fi.se/Folder-EN/Startpage/Supervision/Miscellaneous/Listan/New-methods-for-banks-risk-weights-and-capital-requirements-decided/>.

<sup>21</sup> The risks weights for Swedish banks' exposures to corporates are expected to increase by at least a few percentage points for all banks and as a minimum be around 30 per cent.

<sup>22</sup> See also FI (2016), *FI's supervision of banks' calculations of risk weights for exposures to corporates*. Published on [www.fi.se](http://www.fi.se) on 24 May 2016, FI Ref. 15-13020.

The analysis of this decision memorandum shows that the risk profile has not changed since the decision in March. Total credit growth decreased slightly at the end of 2015 and the amortisation requirement has now entered into force. The growth on the housing market appears to have slowed. There are also no signs from other indicators used as a basis for the assessment of the risk outlook that systemic risks have tangibly increased. Given this, the countercyclical buffer rate should not be changed.

Finansinspektionen

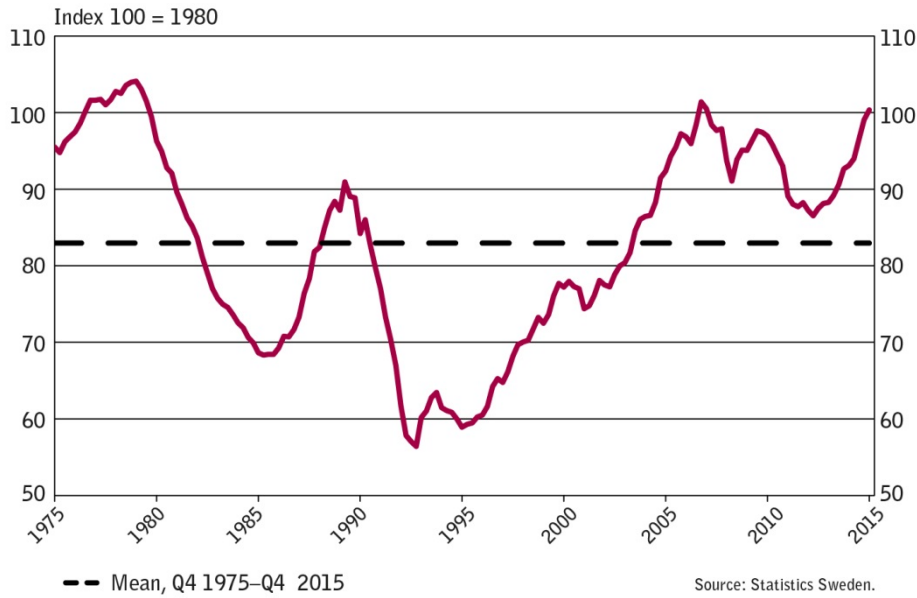
Sven-Erik Österberg  
*Chairman of the Board of Directors*

Matilda Gjirja  
*Senior Analyst*

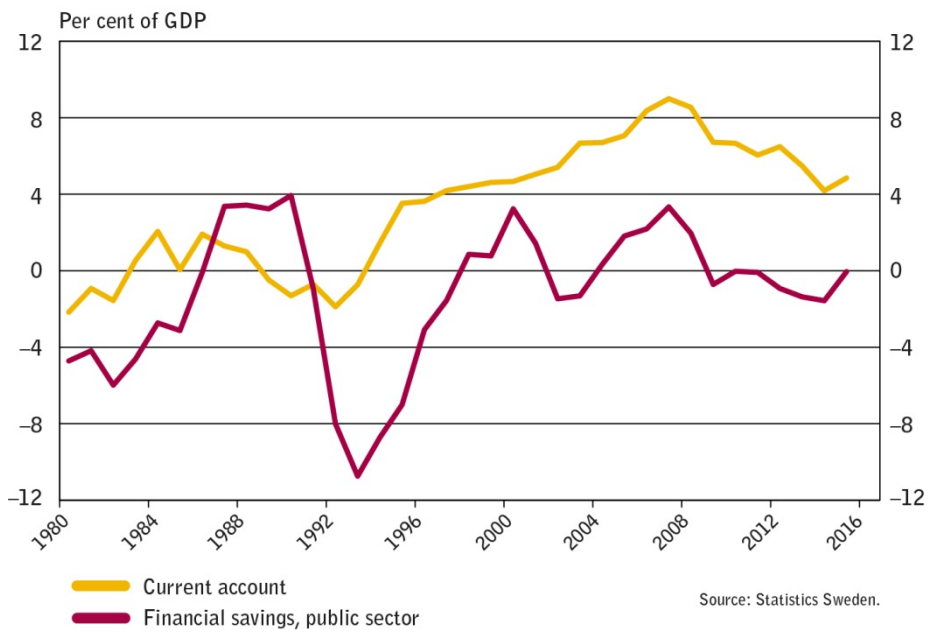
This matter was decided by the Board of Directors of Finansinspektionen (Sven-Erik Österberg, Chairman, Sonja Daltung, Marianne Eliason, Anders Kvist, Astri Muren, Hans Nyman, Gustaf Sjöberg and Erik Thedéen, Director General) following a presentation by Senior Analyst Matilda Gjirja. Per Håkansson (Chief Legal Counsel) and Henrik Braconier (Chief Economist) also participated in the final procedure.

## Appendix 1: Diagram

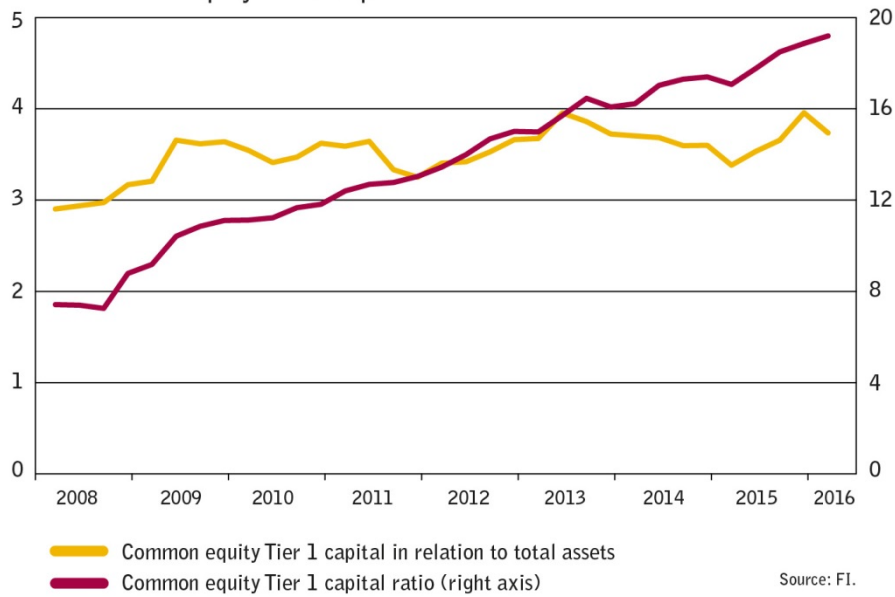
### B 1.1 House prices in relation to disposable income



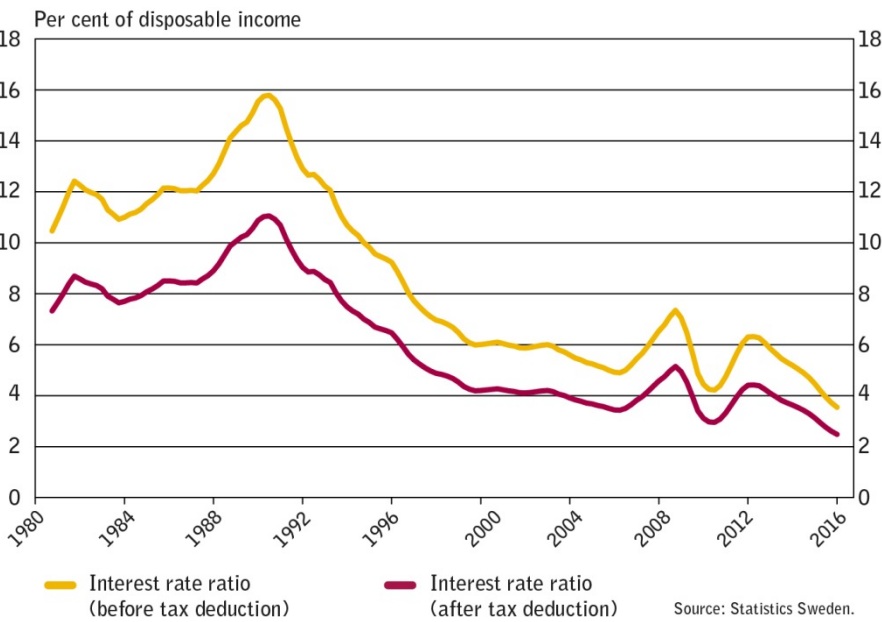
### B 1.2 Current account and financial saving in the public sector



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



**B 1.4** Interest rate ratio of households



### B 1.5 Real equity prices



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

Source: Statistics Sweden and Thomson Reuters Datastream.