



To the zero bound and beyond: Swedish experiences

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RBS, Edinburgh

Agenda

- Background
 - Negative policy rate
 - Quantitative easing
 - Preliminary evaluation of financial-market impact
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Background

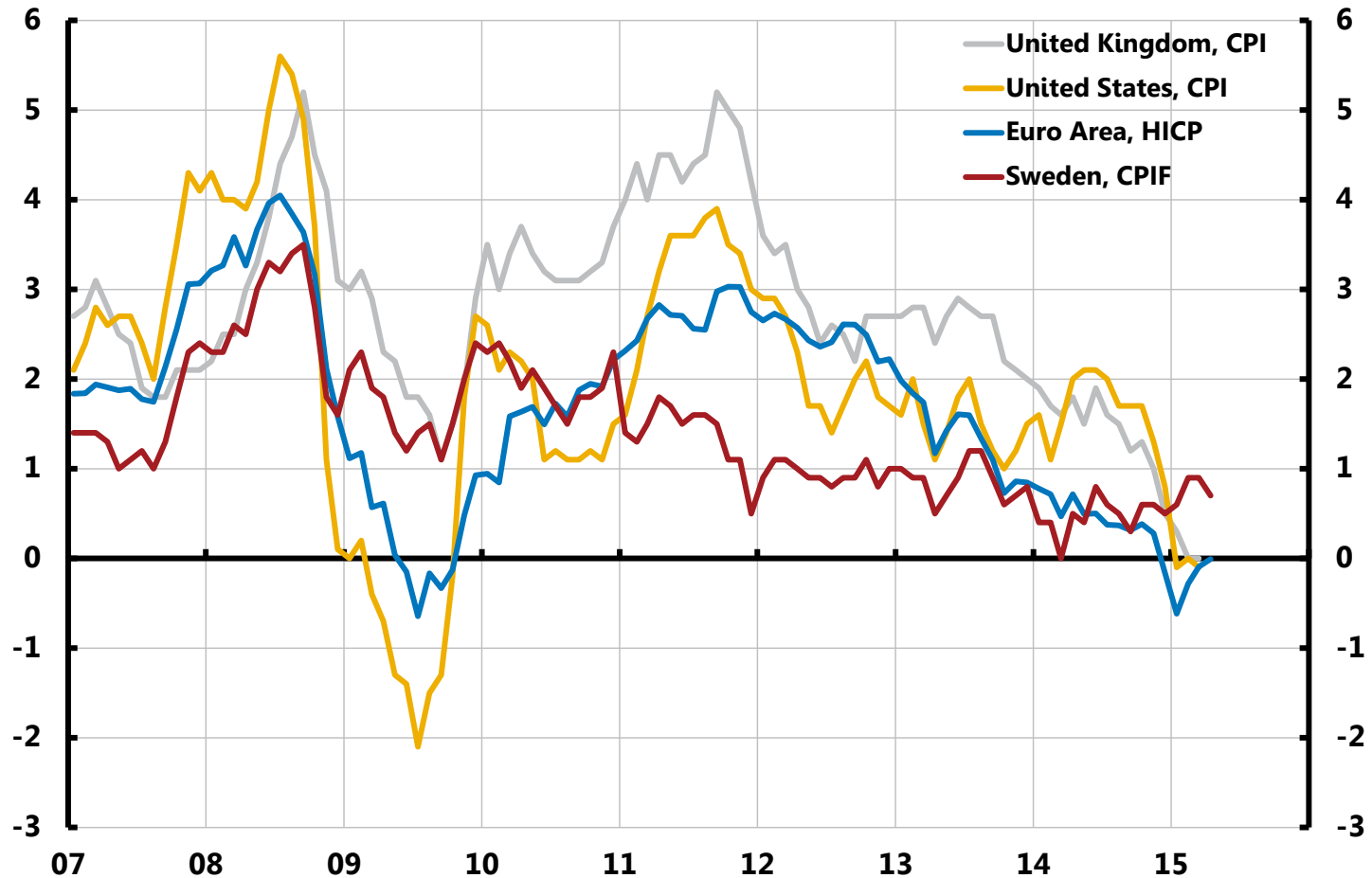
- Inflation is too low
 - Four years with inflation below 2 per cent target
 - Falling inflation expectations
 - Credibility of the inflation-targeting regime may be threatened
 - Short-run impact of ECB's expansionary measures

 - The real side of the economy is recovering relatively well
 - In particular households and services
 - Less so manufacturing and exports
 - Some slack remains

 - Financial and housing markets
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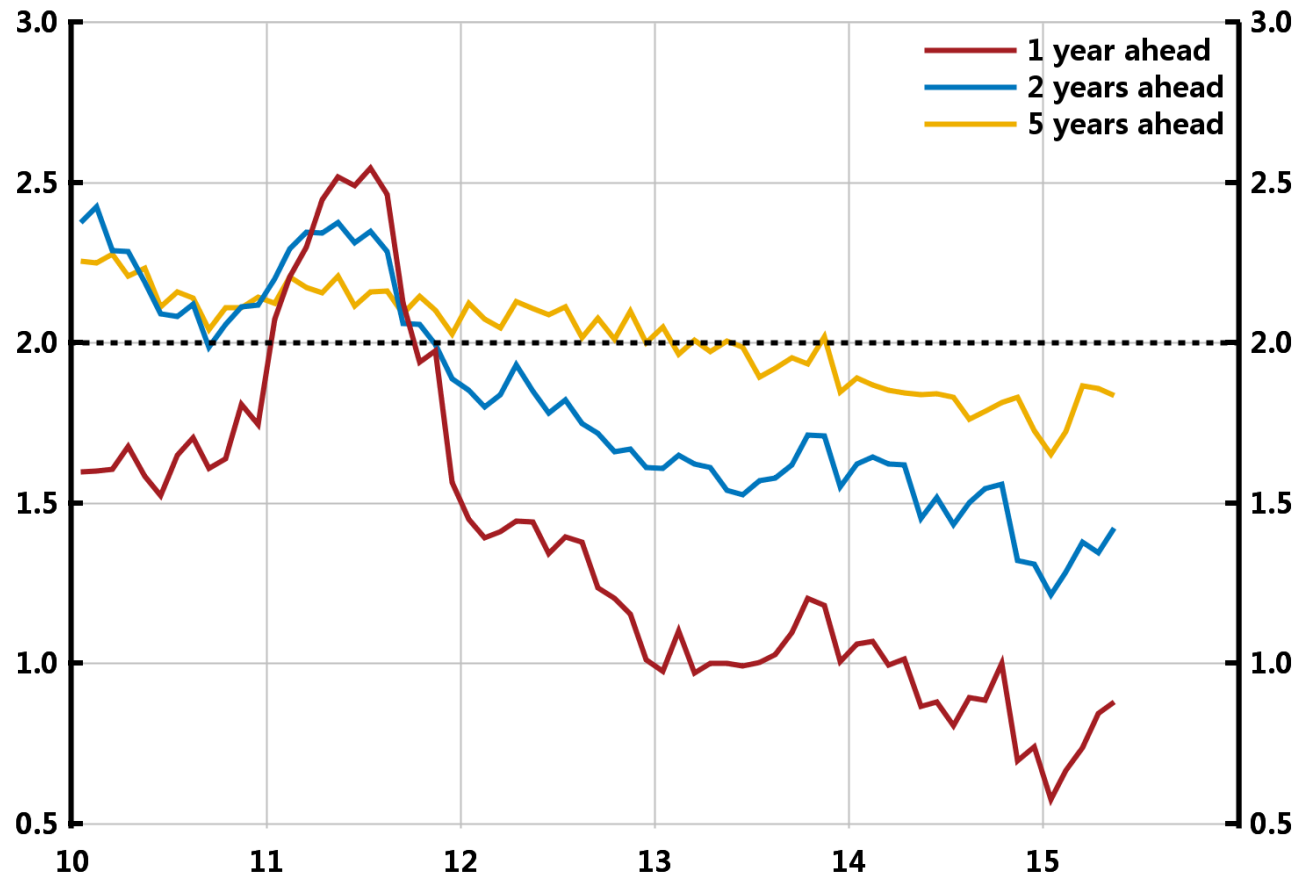
Inflation below target since 2011

Annual percentage change



Inflation expectations have fallen

Per cent, money market participants

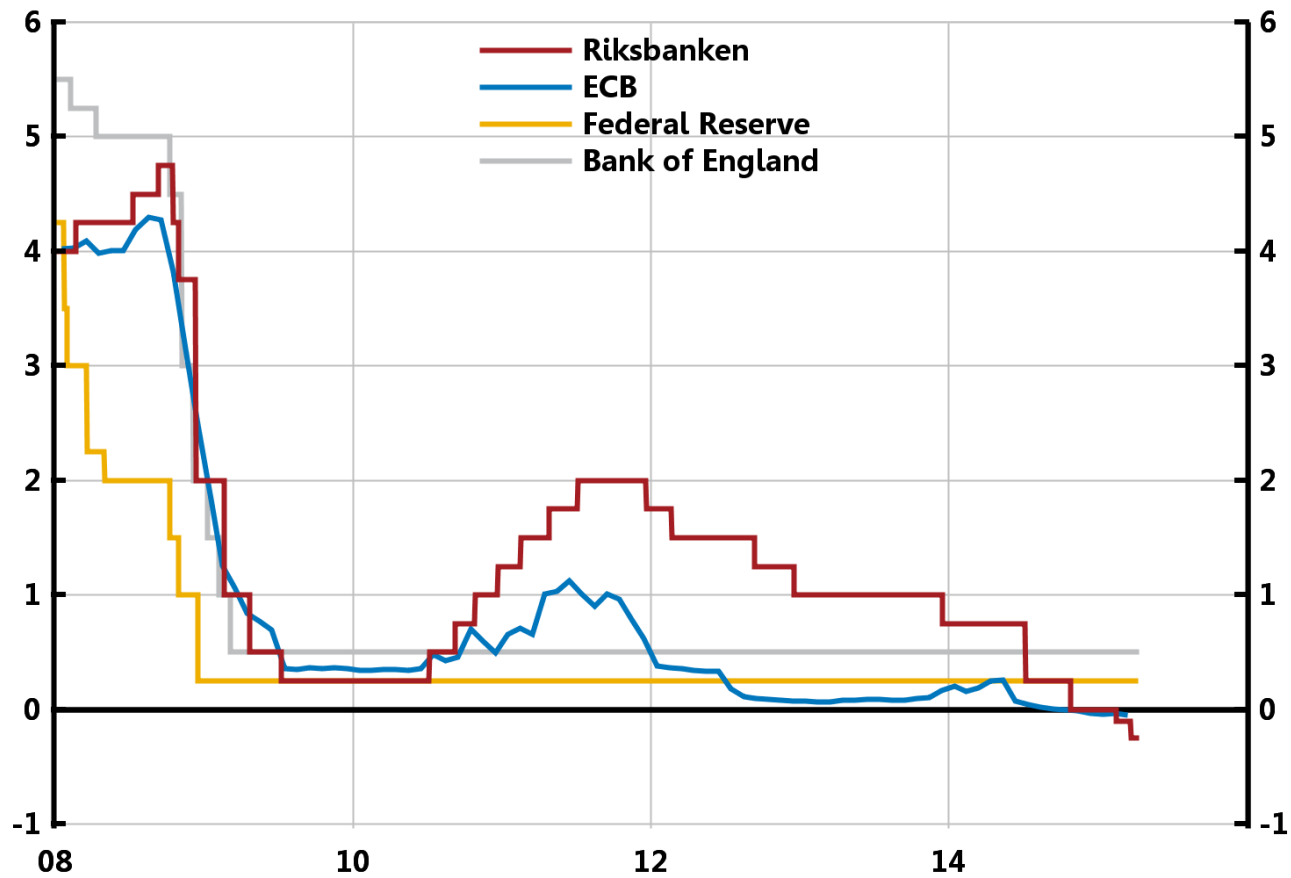


Expansionary monetary policy

- Repo rate reduced by one percentage point last year
 - To -0.10 per cent in February
 - To -0.25 per cent in March
- Forecast of future repo rate reduced substantially
- Bond purchases
 - SEK 10 bn announced in February
 - SEK 30 bn announced in March
 - SEK 40-50 bn announced in April
 - Total around 3 per cent of GDP, 14 per cent of stock

Policy rates

Per cent



Note. ECB refers to Eonia.

Sources: Bank of England, ECB, Federal Reserve Bank of New York and the Riksbank



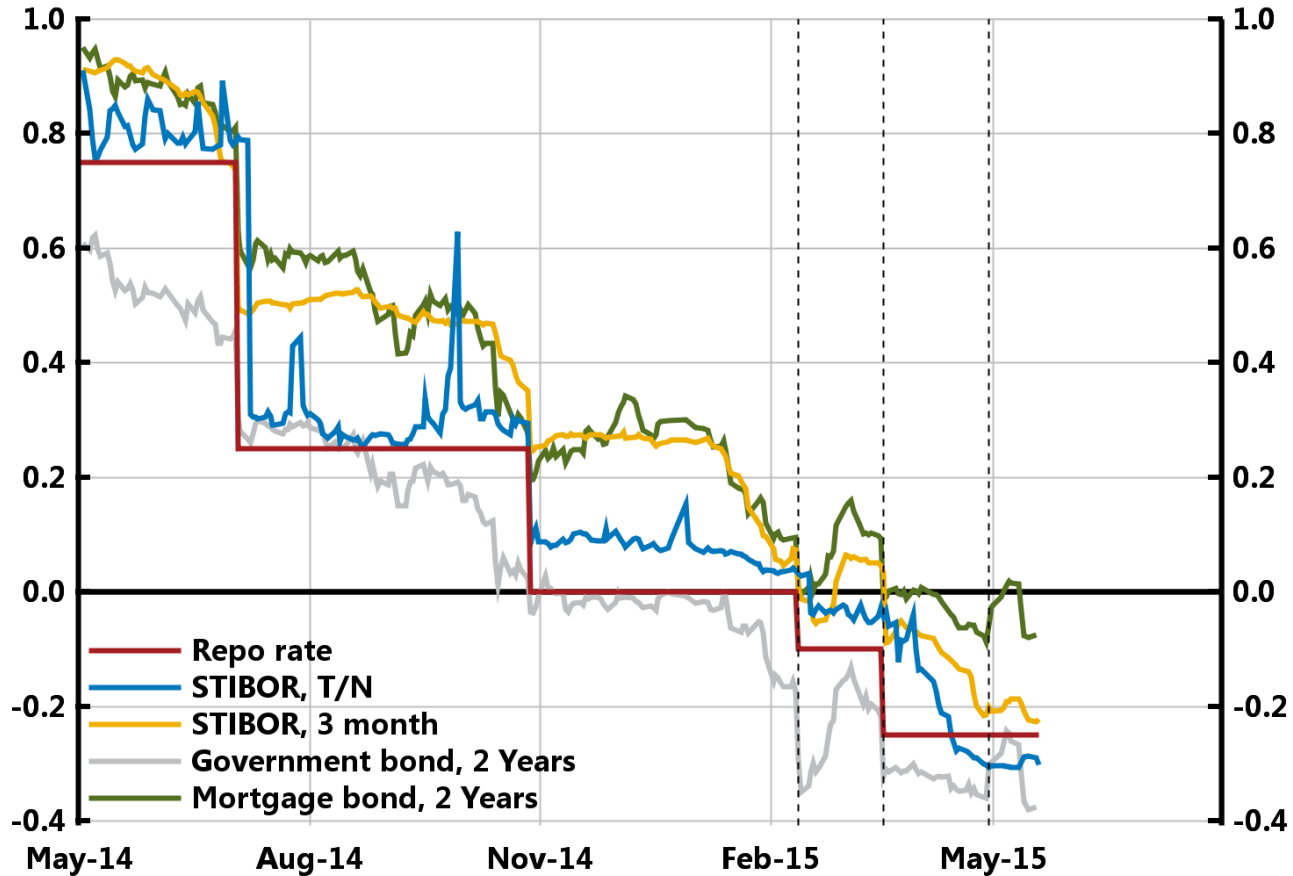
Negative policy
rate

Negative repo rate

- Transmission rather normal
 - Interest-rate channel
 - Exchange-rate channel

Market rates

Per cent

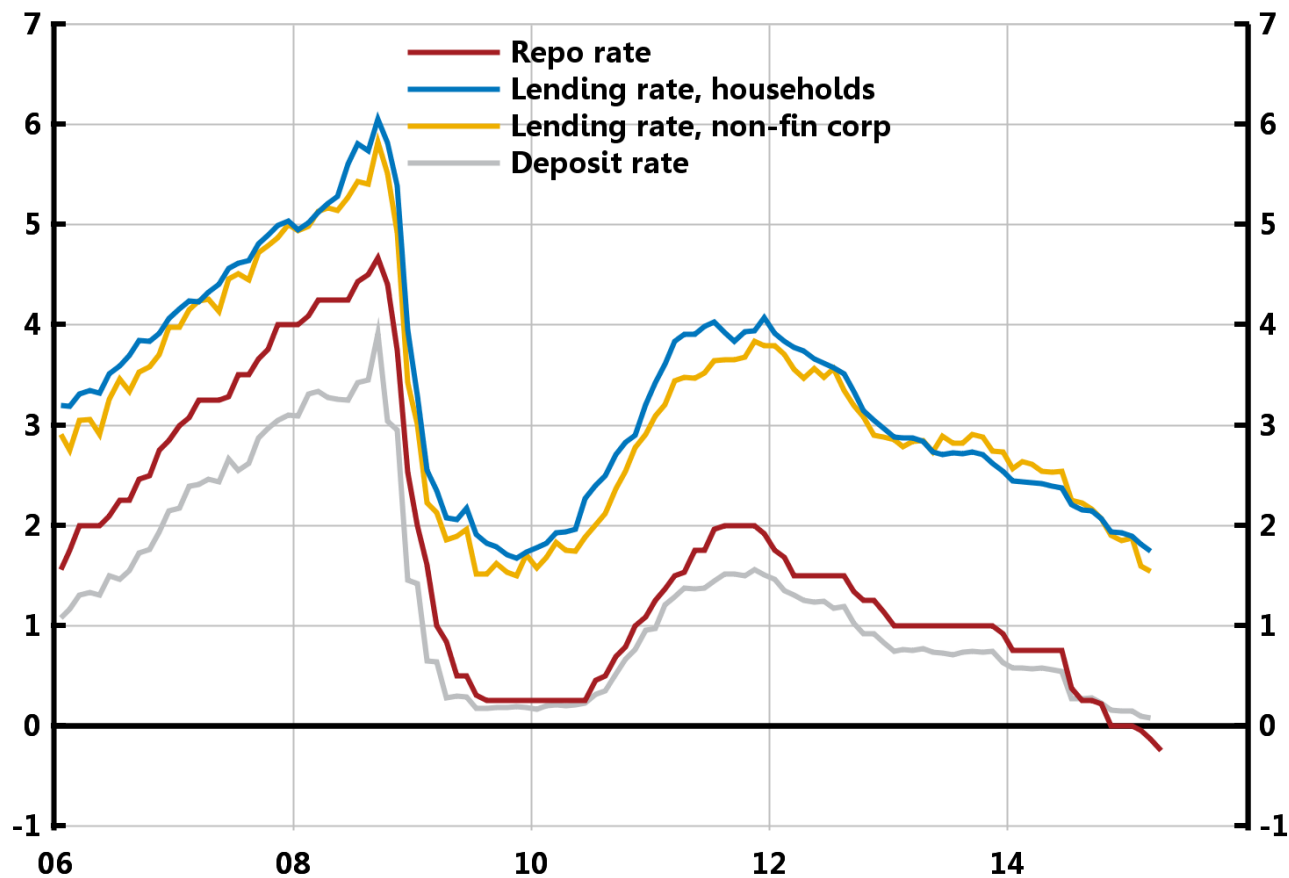


Note. Implied zero coupon rates for government and mortgage bonds.

Source: Riksbank

Lending and deposit rates

Per cent



Negative repo rate

- Transmission rather normal
 - Interest-rate channel
 - Exchange-rate channel

 - Technical problems?
 - FRN market: yes, how to treat coupons that should be negative
 - IT systems: some
 - Cash: not yet

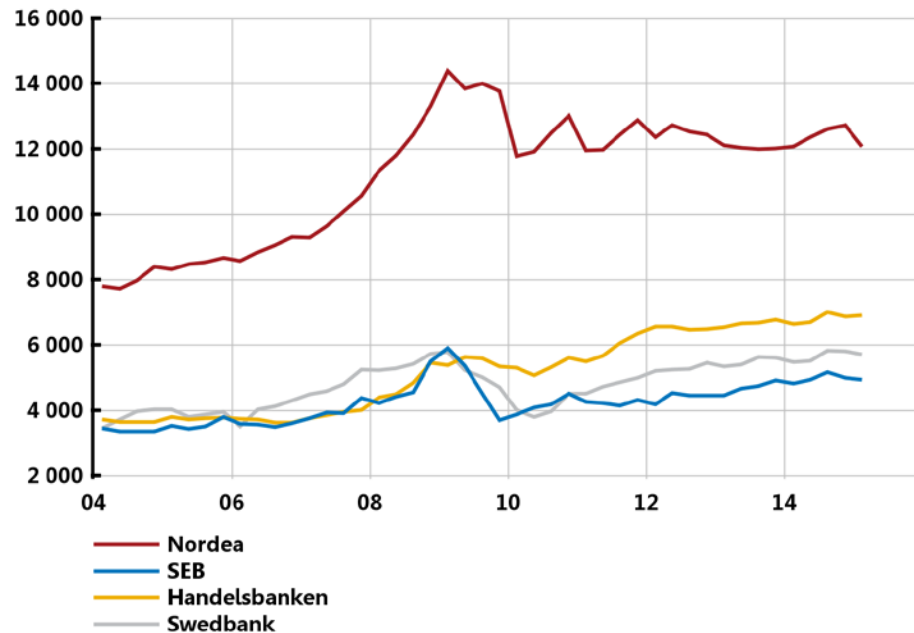
 - Other?
 - Media attention, explain to general public
 - Outflow from money-market funds
 - Search for yield, asset prices
 - Banks' margins
 - Pension funds
-

Bank profits



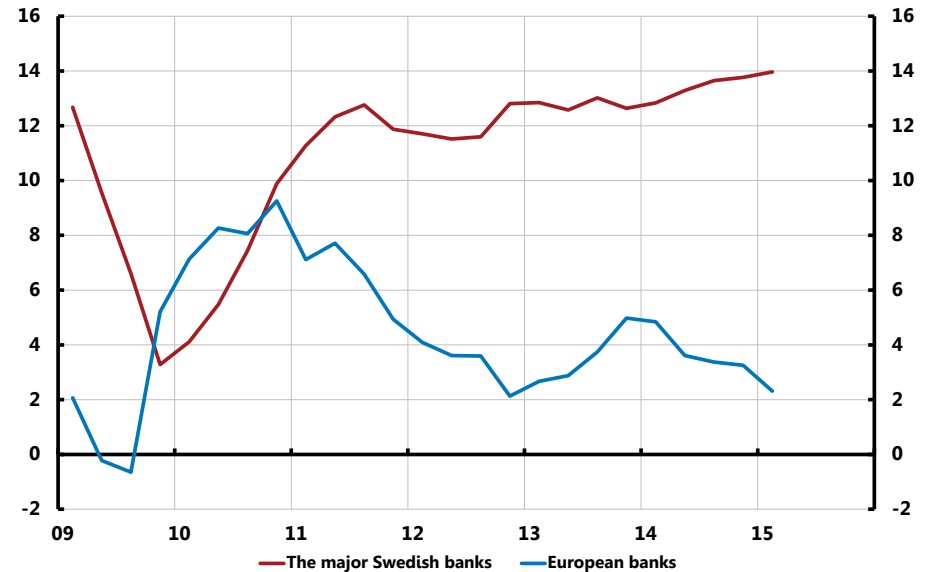
Net interest income

SEK Million (includes 2015Q1)



Return on equity

Per cent





Bond purchases

Swedish QE not unique, but in a special context

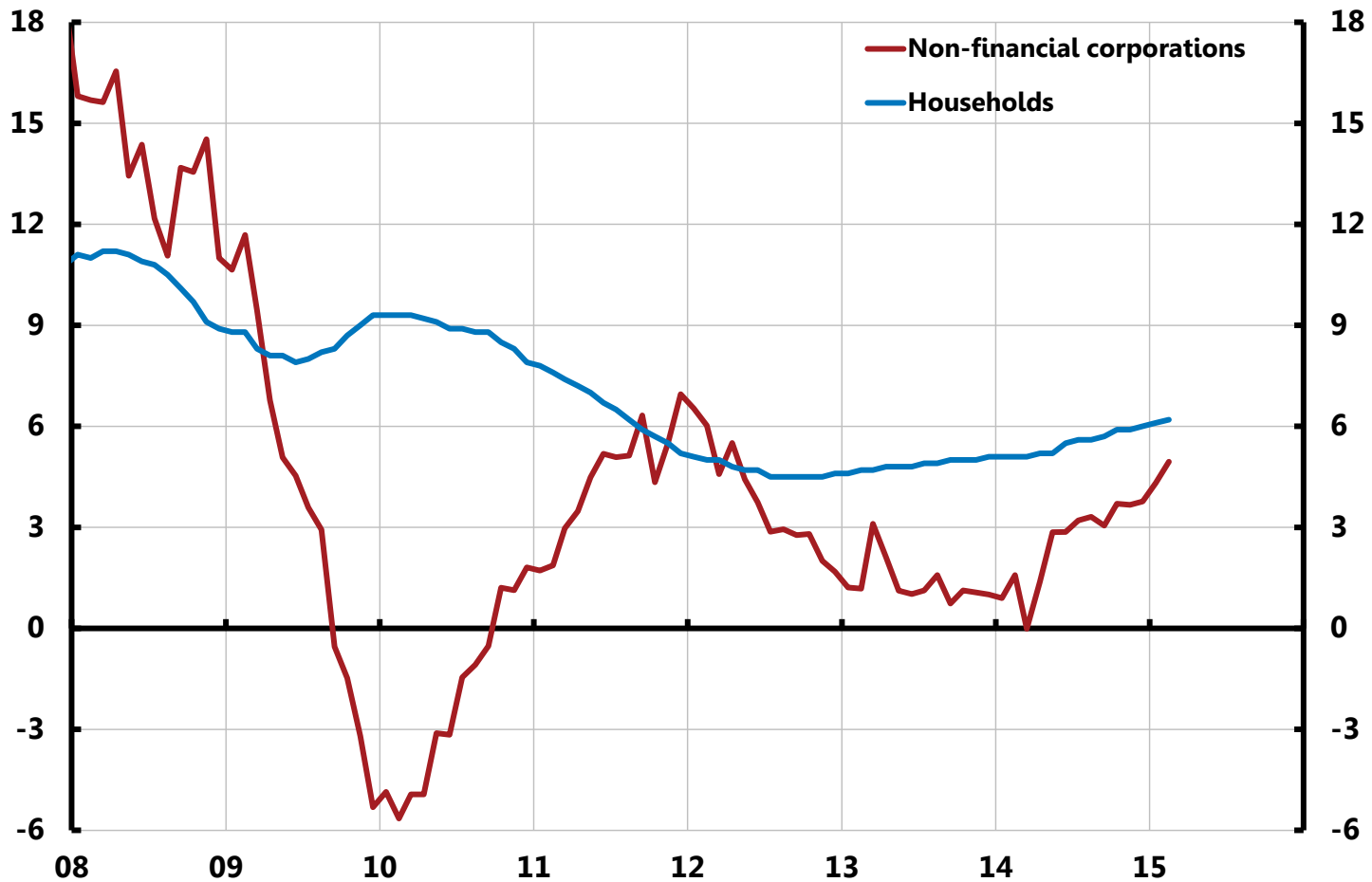


- Financial markets work well and real economy is doing relatively well
 - Our main concern is that inflation is too low



Lending to households and companies

Annual percentage change



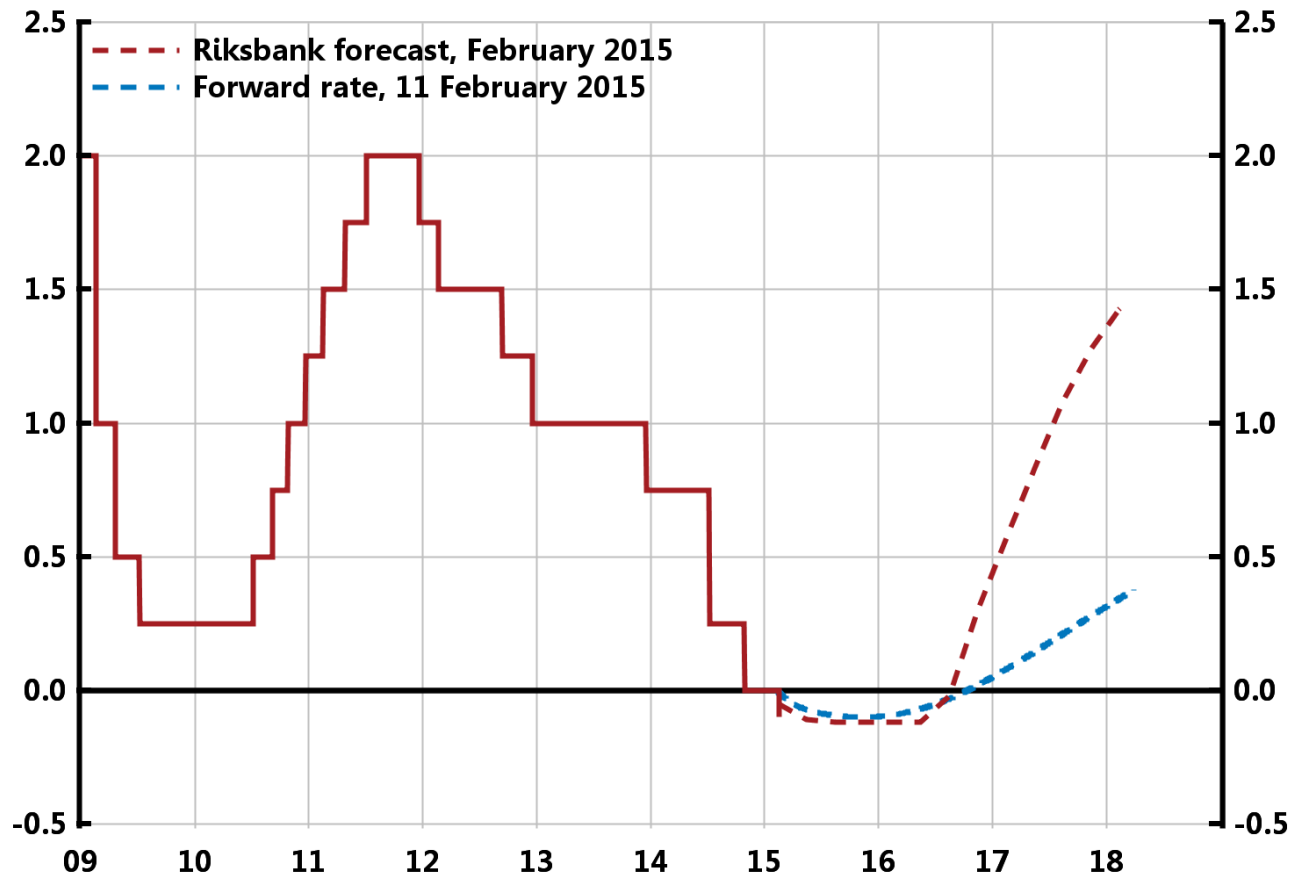
Swedish QE not unique, but in a special context



- Financial markets work well and real economy is doing relatively well
 - Our main concern is that inflation is too low
- Term and risk premiums are low (or negative)
 - Bonds overpriced according to our repo rate forecast



Riksbank forecast and market expectations, February 2015



Swedish QE not unique, but in a special context



- Financial markets work well and real economy is doing relatively well
 - Our main concern is that inflation is too low
- Term and risk premiums are low (or negative)
 - Bonds overpriced according to our repo rate forecast
- Public debt is low
 - Small outstanding stock
- Variable rates dominate
 - In particular for mortgages



What can then be achieved with QE in Sweden?



- Lower long-term interest rates?
 - Less clear when premiums are initially low
 - Less clear if purchases are not in line with our repo rate forecast (then weak signaling effect)

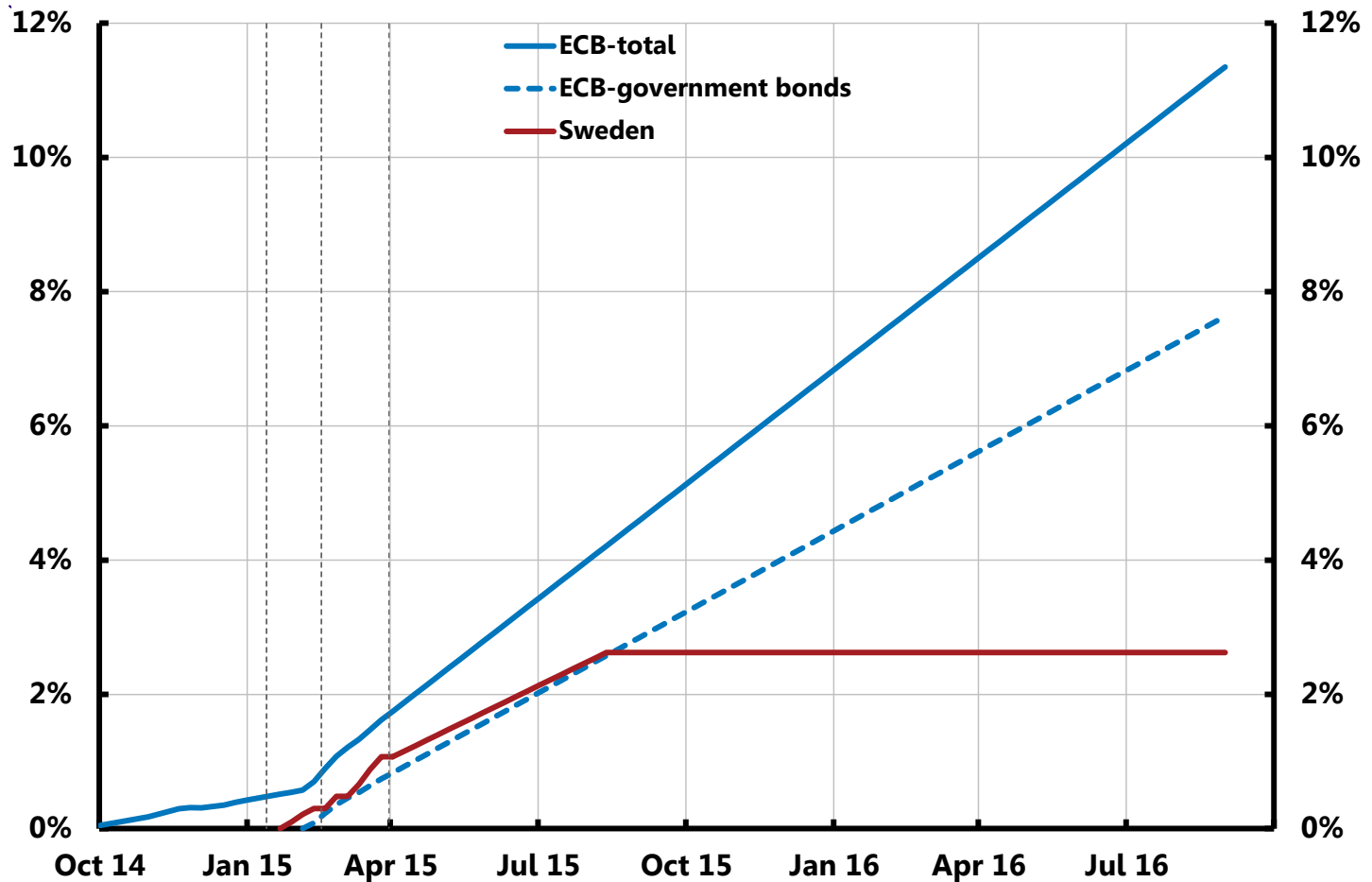
 - Support to fiscal policy?
 - No risk premiums to remove
 - Lower borrowing costs if long rates fall
 - But lower dividends from Riksbank if our profits fall (if we buy overpriced assets)

 - Exchange-rate
 - Could prevent appreciating spillover from ECB's bond purchases

 - Other issues
 - How much can we buy on a small market for government bonds?
 - Buy mortgage bonds when we are concerned about excesses in credit to households?
 - Are interest-rate effects larger if we announce long-term plans for the bond purchases?
 - How do long-term rates transmit when the economy is dominated by variable rates?
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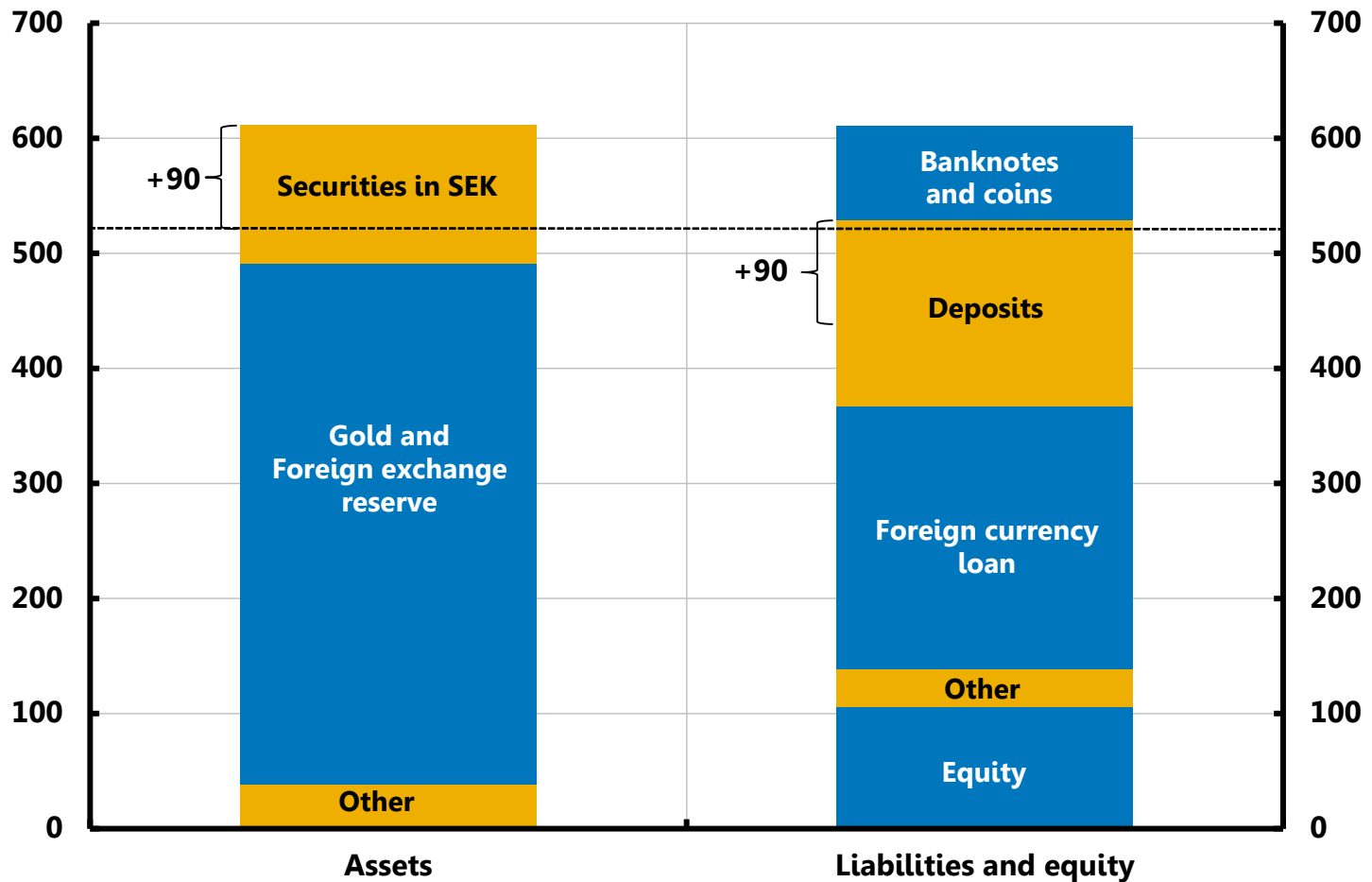
Pace of announced bond purchases

Percent of GDP



The Riksbank balance sheet

Billion SEK



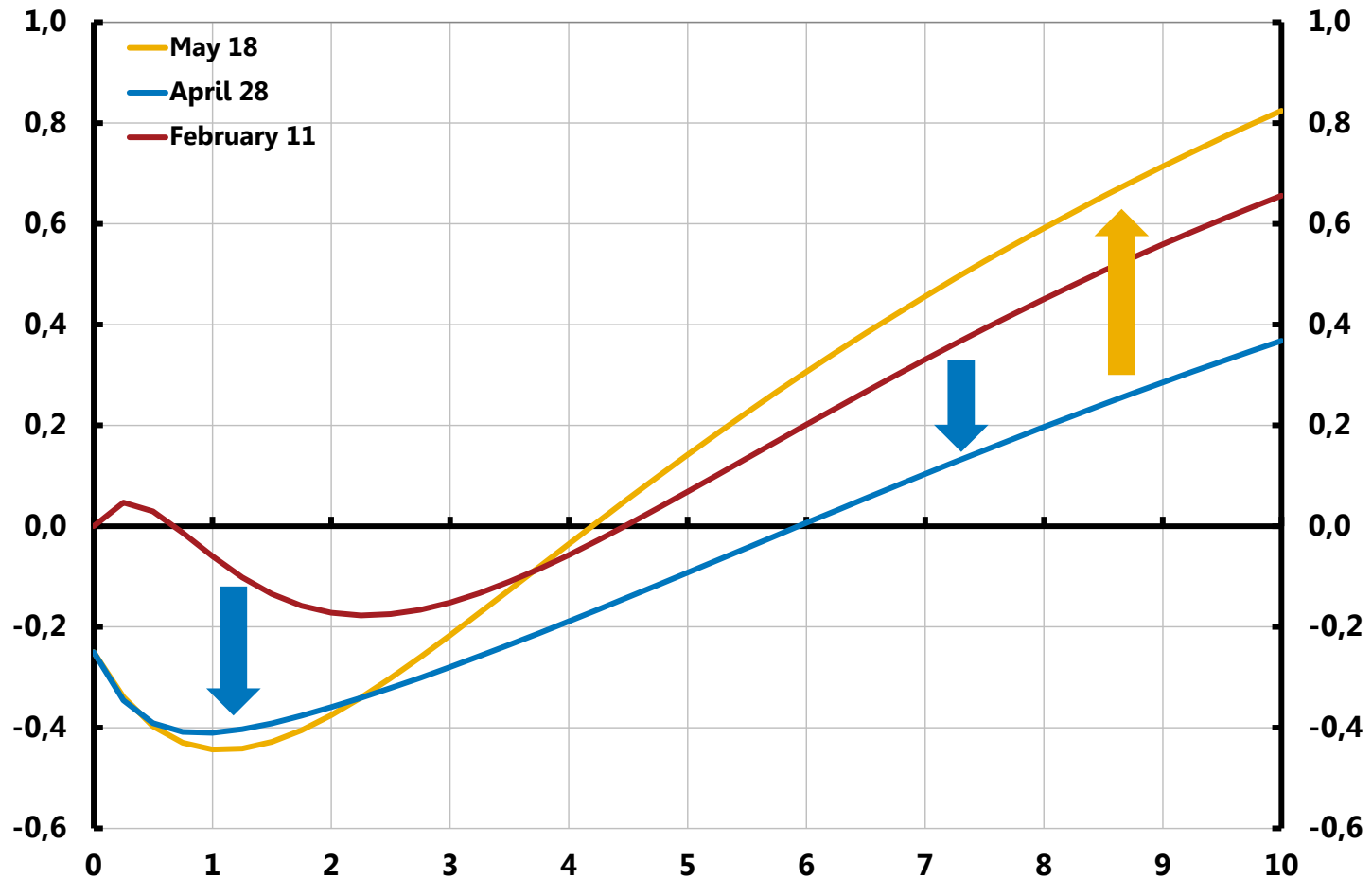


Preliminary assessment of financial-market impact

Impact of expansionary measures

- Short-term interest rates have fallen
 - ... because of lower repo rate

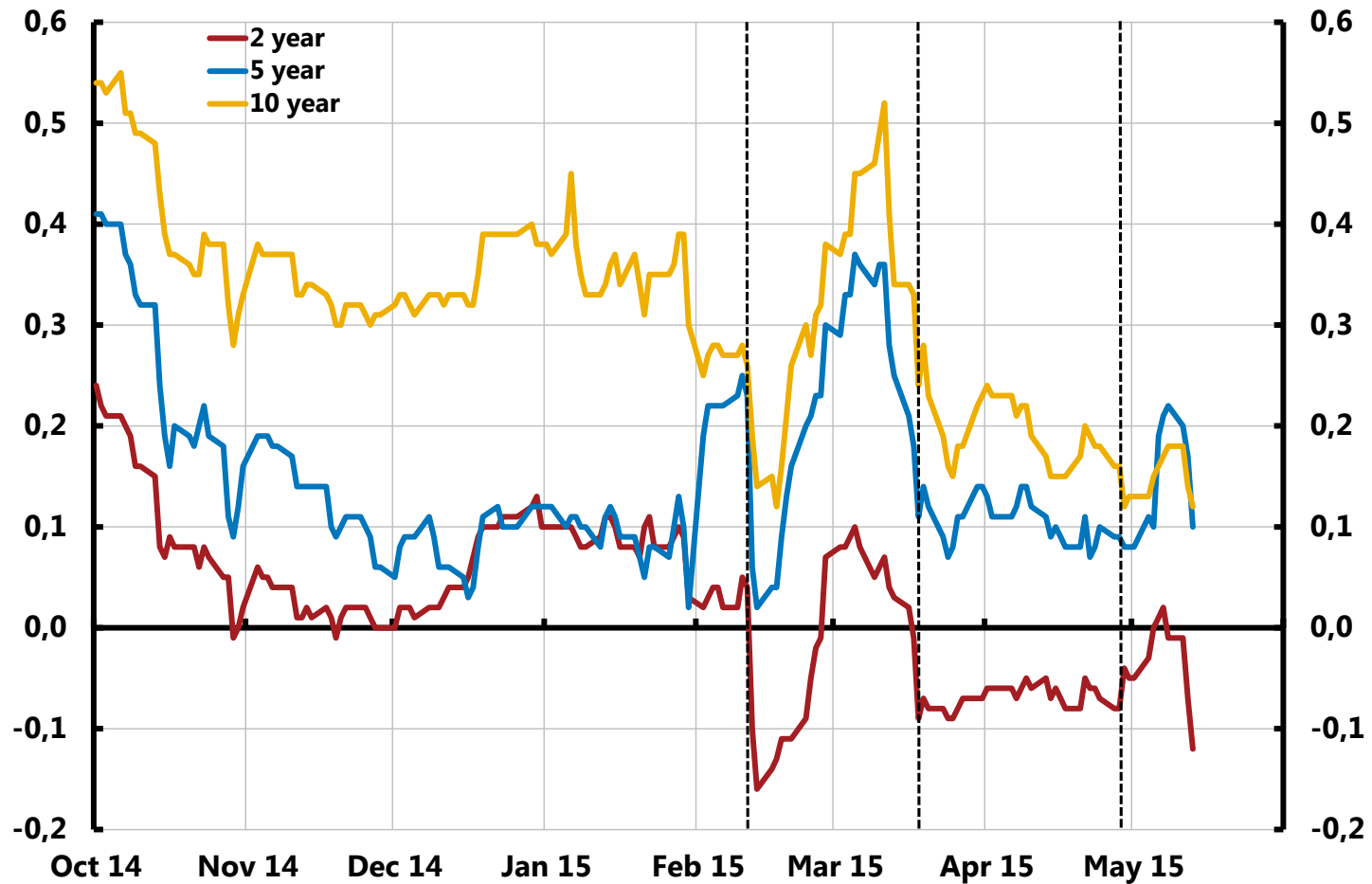
Yield curves in Sweden



Impact of expansionary measures

- Short-term interest rates have fallen
 - ... because of lower repo rate
- Long-term interest rates have fallen relative to German rates
 - ... because of several measures

Interest-rate difference, Sweden-Germany



SEK/EUR

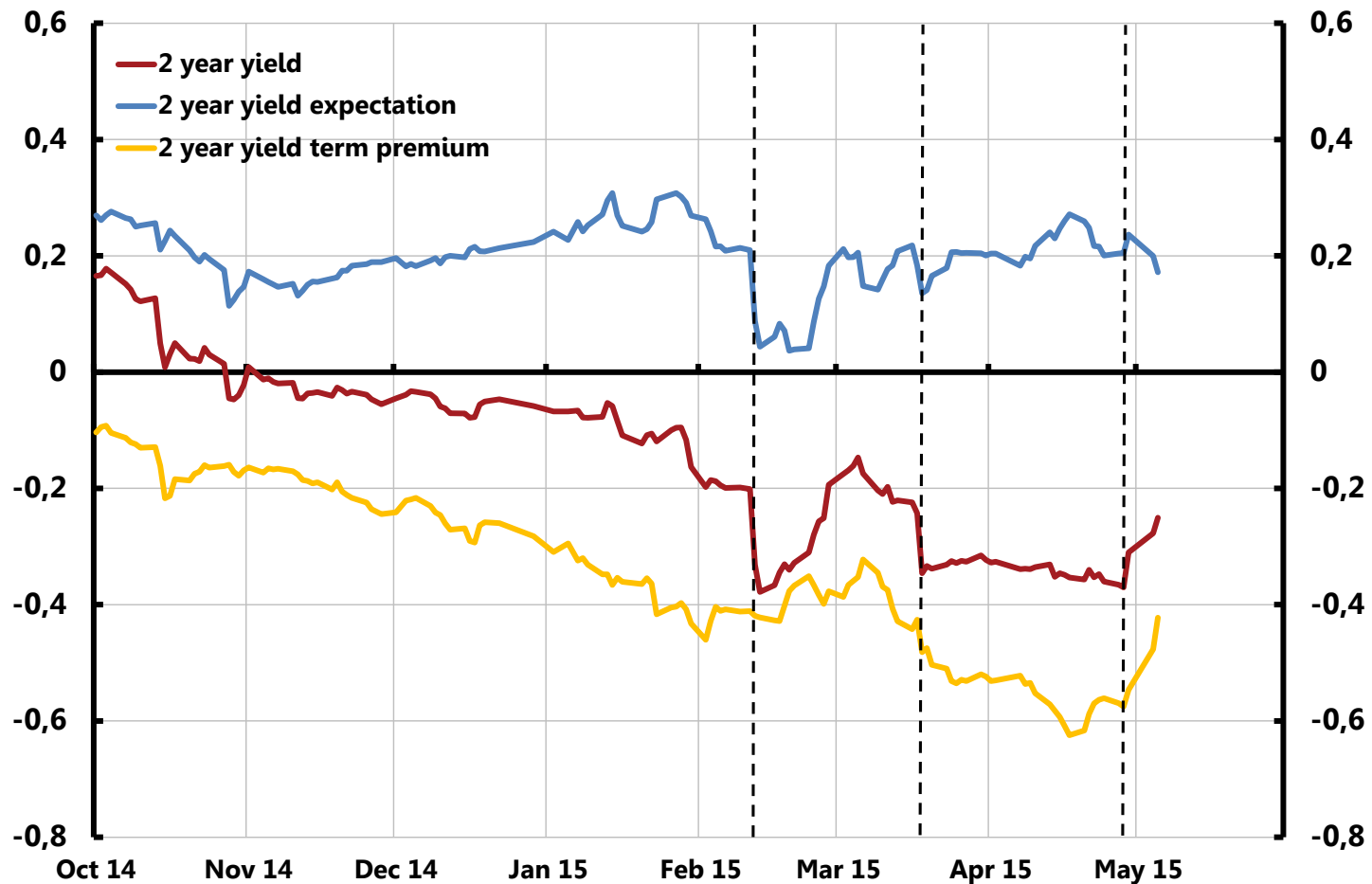


Impact of expansionary measures

- Short-term interest rates have fallen
 - ... because of lower repo rate
 - Long-term interest rates have fallen relative to German rates
 - ... because of several measures
 - February decision (repo cut and bond purchases)
 - The lower repo rate had a clear impact
 - Demonstrated that zero was not the floor
 - Initial communication perceived as softer than minutes?
 - March decision (repo cut, bond purchases, lower repo forecast) (unscheduled meeting! after positive data outcomes!)
 - Lower term premiums
 - Stabilized the exchange rate
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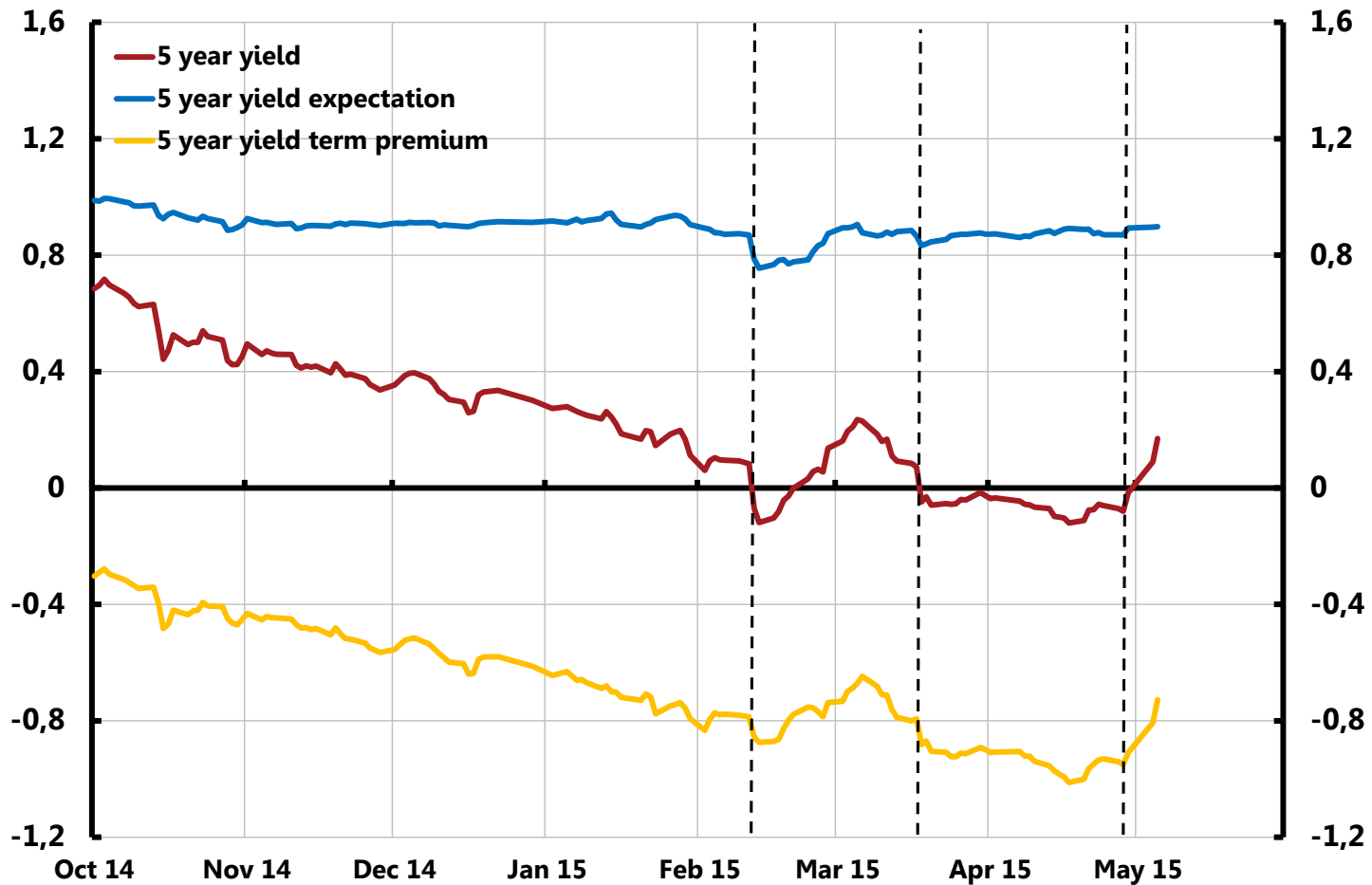
2-year yield decomposition

Average of models JSZ and JSZ + BRW



5-year yield decomposition

Average of models JSZ and JSZ + BRW

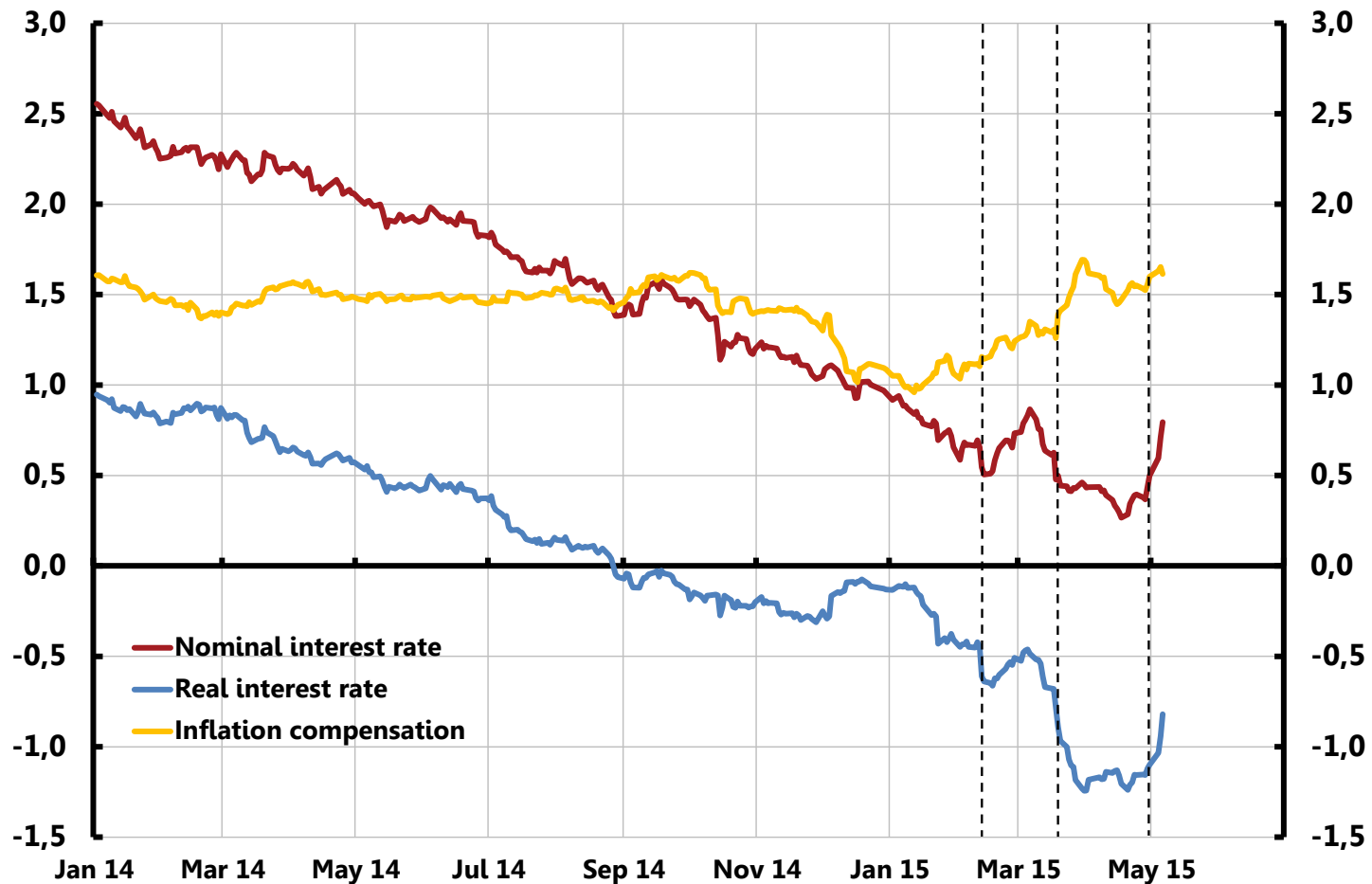


Impact of expansionary measures

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- March decision (repo cut, bond purchases, lower repo forecast) (unscheduled meeting! after positive data outcomes!)
 - Lower term premiums
 - Stabilized the exchange rate
- Inflation and inflation expectations seem to have turned up

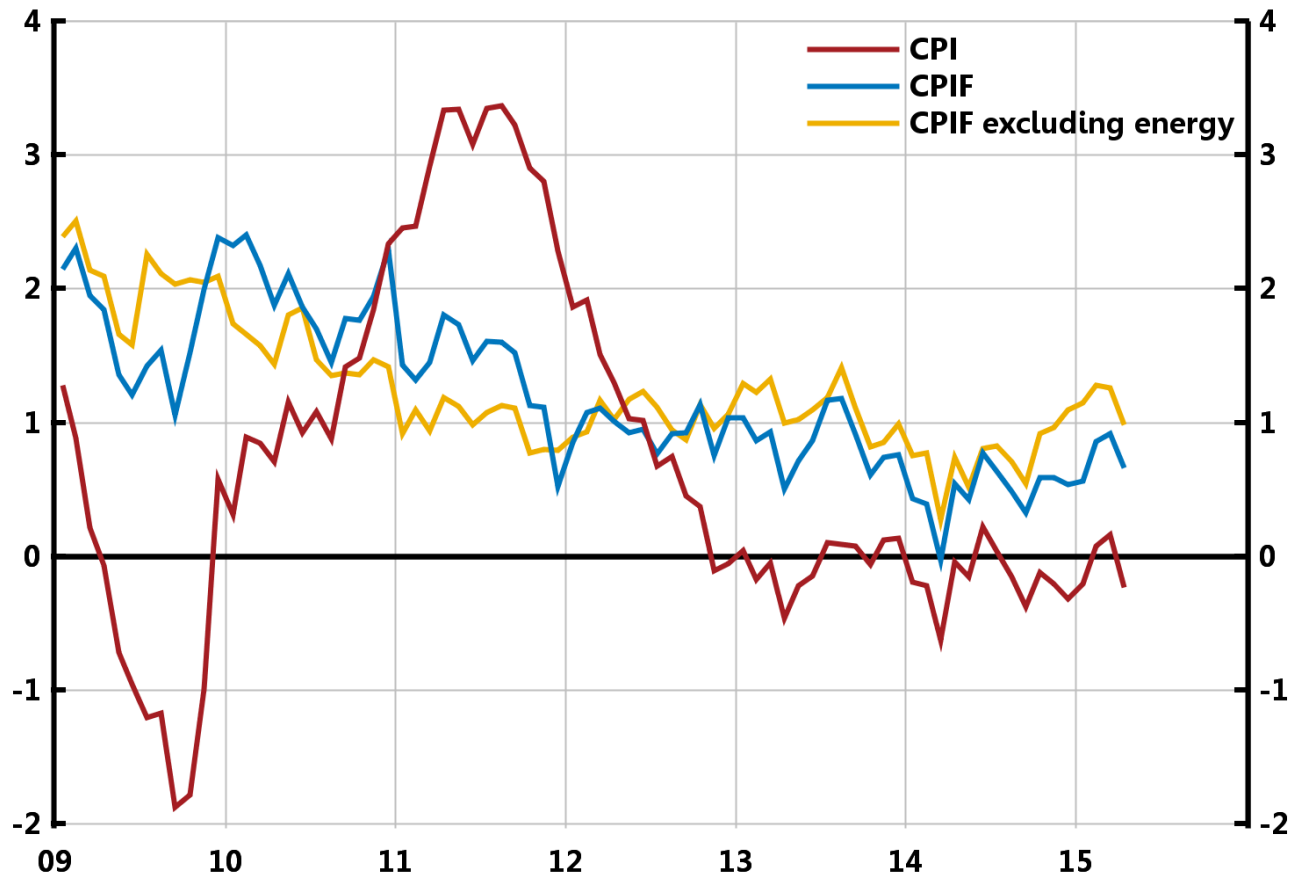
Breakeven inflation

Per cent, estimated zero-coupon rates, 10 years



CPI, CPIX and CPIX excluding energy

Annual percentage change



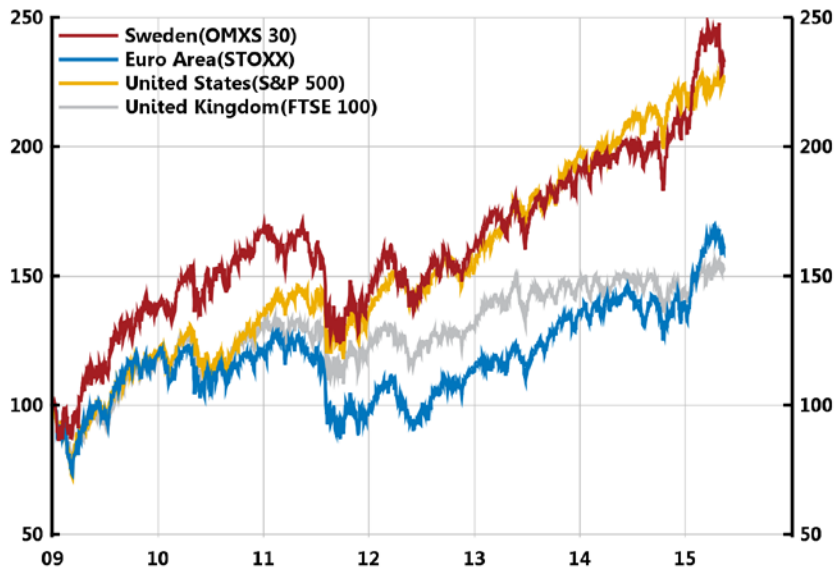
Note. The CPIX is the CPI with a fixed mortgage rate.

Sources: Statistics Sweden and the Riksbank

Stock market and housing prices increasing

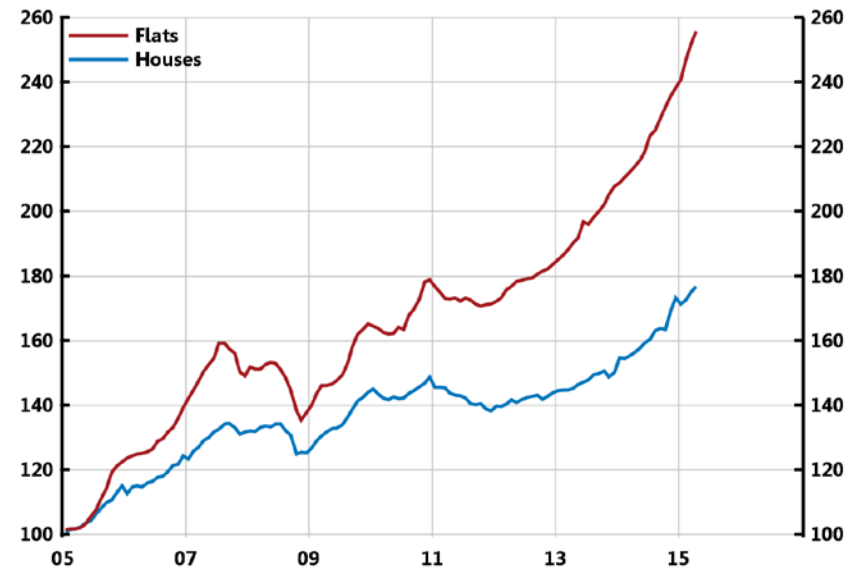
Stock markets

Index, 2 January 2009 = 100



Housing prices

Index 2005 = 100, seasonally adjusted data



Conclusion

- The lower bound for policy rates is soft
 - Cutting the repo rate to -0.25 per cent has resulted in roughly normal transmission through both the interest-rate channel and the exchange-rate channel, and has generated few technical problems
 - We can cut the repo rate further, but transmission through interest-rate channel may then become weaker and technical problems larger
- Swedish quantitative easing in a special context
 - In particular, fewer low-hanging fruits than in other countries
 - Effects may therefore be smaller than in other countries
 - But still indications that long-term interest rates have been pushed down, at least relative to international rates
- Expansionary policies needed until we are confident that inflation has permanently been established at a much higher level
 - How policy develops in the near term will depend on continuously updated evaluations of costs and benefits of these unconventional policies
 - Other unconventional measures are also considered



Thank you!