

Speech

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Causes and consequences of low interest rates

Swisscanto Market Outlook 2014

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I would like to thank Till Ebner, Fabian Gunzinger and Patrick Saner for their very valuable support in drafting this speech.

Introduction

In the wake of the financial crisis, long-term and short-term interest rates have been at historically low levels for several years already. This holds for advanced economies, in general, and for Switzerland, in particular. Central banks have certainly been important actors in this play, as the financial crisis and its economic consequences called for decisive action: central banks around the world lowered their policy rates sharply; they then adopted unconventional measures, often to exert direct downward pressure on long-term rates and risk premia.

But interest rates developments are not just about monetary policy; they reflect the economic and financial circumstances that prevail in a given situation, circumstances to which monetary authorities have to adapt. With this in mind, I will, in the first part of my speech, review the facts behind the currently low interest rates. In doing so, I will focus on the two phenomena highlighted in chart 1: a secular decline in long-term interest rates since the 1980s, which had already brought interest rates to low levels before the financial crisis began, and a cyclical component that led to the extreme lows we have seen over the last few years. This cyclical component is the direct consequence of the financial and economic crisis itself, the appropriate monetary policy reaction to the crisis and the increased demand for safe assets which has fuelled capital flows into perceived safe havens such as Switzerland.

In the second part, I will describe the risks that accompany such a prolonged period of low interest rates. In particular, I will argue that while a period of this kind does not pose a threat to price stability in the foreseeable future, it may be a breeding ground for financial instability.

Finally, I will examine the implications of our analysis for interest rate perspectives. I will argue that, while the current weakness of the global economy still weighs on market and policy rates, the cyclical downturn will eventually reverse, and, over time, interest rates will gradually recover to more normal levels.

Causes of low interest rates

But first things first. Why are interest rates so low?

When discussing the determinants of nominal long-term interest rates, it is useful to think of them as the sum of two elements, the real long-term interest rate and the inflation premium.

Economic theory tells us that the real interest rate is the price that matches the supply of savings with the demand for capital used for investment. Supply and demand for funds, in turn, are determined by fundamental economic factors such as the time preference of households to consume today relative to consuming tomorrow, as well as the productivity of capital and demographic factors which determine future growth prospects.

To arrive at market-quoted nominal interest rates, one must add to the real rate an inflation premium, which compensates the investor for the potential loss in the purchasing power of money over the term of the security.

So, to shed light on the movement towards lower nominal interest rates since the 1980s, let us examine how these two components – the real interest rate and the inflation premium – have changed over that period.

A secular downward shift

A considerable part of the secular decline in nominal rates is the result of lower and more stable inflation rates in advanced economies, translating into reduced inflation expectations and a lower inflation premium (chart 2). Reduced volatility of inflation rates since the mid-1980s – a development associated with the ‘Great Moderation’ – has probably contributed to this.¹ This reduction in the inflation premium and in volatility can, at least partly, be attributed to the success of central banks’ policies and their credible commitment to low and stable inflation, a commitment which has become the hallmark of modern central banking.

Realised real rates – calculated as observed nominal rates minus the realised inflation rates – have also declined, and have been substantially lower in the 2000s than in the 1980s (chart 3). There are several potential explanations for this development.

A first explanation is the ‘global savings glut’ hypothesis, which states that the decline in real interest rates was the result of an increase in savings from emerging economies and oil-producing economies. It is argued that this increase was driven by, among other things, an accumulation of foreign exchange reserves, elevated oil prices and precautionary savings (chart 4).²

But the decline in real rates could also result from a decrease in growth prospects – itself caused, for instance, by a decline in the growth of productivity or population, or by demographic shifts, particularly a reduction in the working population relative to the non-working population (charts 5 and 6).³

None of these possible explanations for the reduction in real interest rates has been fully confirmed, and therefore they do not constitute a sound basis for forecasting future interest rate developments. But the discussion highlights the fact that, in order to understand longer-term trends in real interest rates, we have to rely on low frequency changes in fundamental economic factors, while monetary policy does not play a primary role here.

¹ For a more detailed description of the ‘Great Moderation’ cf., for instance, Bernanke (2004).

² Cf. Bernanke (2007).

³ Cf., for instance, Gordon (2012) for a provocative thesis on future productivity and GDP growth and Bloom et al. (2001) for an extensive survey of the impact of demographics on growth.

The cyclical downturn

Let us now turn to more recent interest rate developments. As mentioned, since the financial crisis and the global economic slump that followed, we have seen a further fall in rates to very low levels. Three explanations are particularly relevant for this cyclical development.

First, low or negative output growth like that observed in times of recession together with the associated pessimism about future prospects, all have a negative impact on interest rates. Low growth and excess capacities reduce the anticipated return on capital, thus diminishing the incentives to invest and lowering the demand for funds. At the same time, the lack of confidence depresses demand and increases the level of savings. This combination of low demand and a high supply of funds leads to low interest rates.

The low interest rates we currently observe are thus, first and foremost, a natural consequence of the current state of the global economy, characterised by a substantial slowdown of economic activity after the financial crisis and a comparatively weak recovery, with marked underutilisation of production factors, notably labour, in many advanced economies (chart 7).

Second, as mentioned before, the central banks of most mature economies have also contributed to the current environment of low interest rates. They responded swiftly and decisively to the crisis by first lowering short-term rates practically to zero, then exerting direct pressure on longer rates. To achieve this, they engaged in ‘quantitative easing’ and ‘credit easing’ policies by expanding and changing the composition of their balance sheets. The goal of these measures was to mitigate the effects of the economic slump and stabilise financial markets in the face of high uncertainty (charts 8 and 9).

One may wonder – and many people do – whether these policies have gone too far. While the jury is still out on unconventional measures,⁴ there is no doubt that the policy of lowering short rates to virtually zero and keeping them there was fully justified. Had this policy been too expansionary, it would have translated into inflationary pressures. Yet, much to the contrary, inflation in most advanced economies has been subdued and is, in some cases, still falling even five years into the crisis. Finally, heightened uncertainty in global financial markets has increased the demand for safe assets like government bonds. At the same time, the supply of such safe assets has decreased as investors have increasingly questioned the relative security of assets that were previously considered safe, a fact that is reflected in the down-grading of several sovereign bonds. With an increased demand for and decreased supply of safe assets, their price has been bid up and their yield pushed down.

The Swiss case

These changes in the supply and demand for safe assets are of particular relevance in the case of Switzerland. While Switzerland has historically experienced lower interest rates than its

⁴ Estimates suggest that the first round of US quantitative easing has reduced yields on 10-year U.S. treasuries by 50 to 100 basis points, see e.g. Christensen and Rudebusch (2012) or Gagnon et al (2011). However, we are not yet in a position to undertake a final assessment of the broader macroeconomic effects of these programmes.

peers, the exceptionally low levels that have prevailed since 2009 can largely be explained by the increased demand for risk-free investments and the perception that Swiss franc assets constitute one of the ultimate safe havens in times of global uncertainty. The reasons for this are well known. The country has managed to maintain a long-standing reputation for political and economic stability. In relative terms, the Swiss economy weathered the 2007 financial crisis rather well, being one of the first advanced countries to reach its pre-crisis level of output. And, at less than 40%, its debt-to-GDP ratio is relatively low.

The surge in the demand for Swiss franc assets has pushed Swiss interest rates to unprecedented lows (chart 10). In September 2011, the three-month Libor fell to a low of 0.003% while the yield on 10-year Swiss government bonds fell to an all-time low of 0.376% in December 2012. Temporarily, futures contracts on the three-month Libor even implied negative future rates.

At the same time, the safe haven flows have put unprecedented upward pressure on the Swiss franc. At its peak in early August 2011, nominal appreciation reached about 60% against the euro and the US dollar compared to mid-2007 levels (chart 11).

In combination with weak global demand, the very substantial overvaluation of the Swiss franc posed an acute threat of recession and carried the risk of deflationary developments. To contain these risks, the SNB took unprecedented measures, first increasing liquidity to historically unparalleled levels, then introducing a minimum exchange rate against the euro.

Summing up our investigation into the causes of low interest rates, the main message is that interest rates reflect the prevailing economic and financial circumstances and the reaction of monetary policy to these circumstances. The low levels we currently observe can be explained by a secular downward trend that began in the 1980s, a cyclical downturn due to the financial crisis, the correspondingly accommodative monetary policy and, in the case of Switzerland, additional downward pressure resulting from the safe-haven demand.

But – and this brings me to my next point – such low interest rate levels are not without risk.

Consequences of a long period of low interest rates

An extended period of very accommodative monetary policy, even when fully justified as a reaction to prevailing economic circumstances, is not without risks and side-effects. Let me raise two issues: the risk to price stability, and the risk to financial stability.

I will start with the former. An extended period of low interest rates and abundant liquidity inevitably generates the fear of a resurgence of the high levels of inflation that we have witnessed in the past. Given the current situation, these fears are unwarranted.

In most advanced economies, capacities are still underutilised and output gaps are set to close only very gradually (chart 12). Money, despite having been made available by central banks in unprecedented amounts, has not showed up proportionally in investment and consumption. This reality implies that inflation pressures will be contained for some time to come.

Moreover, central banks have the necessary instruments at hand to counter inflation pressures, if and when they manifest themselves. The implication for our analysis is that the inflation premium in interest rates is set to remain small in the future.⁵

But even though the currently low policy rates are adapted to current economic realities and do not pose a threat to price stability in the foreseeable future, they may pose a risk to financial stability through various channels.

First, by lowering the cost of credit and increasing the value of assets, low interest rates could provide the breeding ground for asset price and credit booms. In this regard, the current developments in Swiss mortgage and real estate markets are telling: real estate prices and mortgage credit have been growing with considerable momentum for several years already. Importantly, the growth rates of both prices and credit volumes are at levels which cannot be fully explained by fundamental factors. This has led to the built-up of imbalances which increase the risk of a substantial price corrections and of loan losses (charts 13 and 14).⁶

A second, related, danger is that low rates may induce excessive risk-taking in financial markets – as opposed to reviving productive risk-taking, which is one of the objectives of low policy rates. Here, the economic literature stresses two channels: investors who are unable or unwilling to accept low returns are liable to take higher risks and increase leverage to reach their return objective, a phenomenon known as ‘search for yield’ (chart 15).⁷ In addition, by pushing up asset prices and dampening price volatility, low interest rates reduce measured risk and may lead investors to misjudge the true risk of a given investment.⁸ A long period of low rates, for example, may lead borrowers and lenders to overestimate debt affordability and underestimate the risk of higher debt servicing costs in the future.

Third, financial stability may be in danger when strong action by central banks during a crisis leads market participants to rely excessively on central banks as a backstop in case of negative shocks. This is the moral hazard problem.⁹

Taken together, these channels underline the risks the current ‘low-for-long’-situation presents for financial stability. These risks have to be acknowledged and acted upon. The fact that it is possible for these risks to exist while monetary policy is responding appropriately to the macroeconomic situation perfectly illustrates the Tinbergen principle – the number of instruments must equal the number of policy goals.¹⁰ In the current environment, the interest rate cannot be the instrument of choice for addressing financial stability risks.

⁵ This view is also reflected in market expectations. For instance, 10 year inflation expectations for the US, derived from the yield differential of inflation-linked government bonds and nominal government bonds, stood slightly below 2.25% in August 2013.

⁶ Empirical evidence suggest that a simultaneous built-up of imbalances in real estate and credit markets is a key leading indicator of subsequent financial instability. Cf., for instance, Schularick and Taylor (2012) and Borio (2012).

⁷ Cf. Borio and Zhu (2008) and Gambacorta (2009).

⁸ Cf., e.g., Adrian and Shin (2009).

⁹ Cf., e.g., Miller et al (2002).

¹⁰ Cf. Tinbergen (1956).

The answer is to give more weight to what are known as macroprudential instruments implemented as a complement to, and along-side a monetary policy that remains firmly focused on price stability. These instruments directly target the risk-taking behaviour underlying financial stability risks. This is exactly the approach chosen in Switzerland with the activation of the countercyclical capital buffer. By forcing banks to build up additional capital in the current phase of strong credit growth, the regulators aim at improving the capacity of the banking system to bear losses in the event that the identified risks materialise, while also limiting the further build-up of these risks.

Outlook

We are now in a position to derive the implications of our analysis for the interest rate outlook. With respect to the secular trend toward lower interest rates, two observations are in order. First, I do not think the current situation bears the seeds for a return to the inflation rates of the seventies, despite the fears that are sometimes expressed. As argued, I thus do not see the reasons for a significant increase in the inflation premium. Second, as to the other defining element of the secular trend, lower real rates, it is harder to make definitive statements. The ultimate drivers of this development and their respective roles have not been unambiguously clarified. For this reason, it is not possible to argue convincingly that the secular downward trend has run its course or that it is likely to revert. This is the main unknown in our equation.

What is certain, however, is that the crisis-induced cyclical downturn will eventually be reversed. At some point, economies will return to more robust growth paths. Interest rates and monetary policy will accompany this change in circumstances. Thus, making sense of our assessment of the likely future path of interest rates hinges on our assessment of the economic outlook. Let me be more specific here.

For the global economy, the SNB forecasts the continuation of a gradual, albeit subpar recovery. In the near term, indicators for the US, Europe and China suggest that global growth should gradually gain in momentum and become more broad based (chart 16). Nevertheless, the recovery is likely to remain subdued. Households, governments and banks in many advanced economies are still in deleveraging mode, and this attempt to reduce the debt overhang is likely to weigh on short-term growth prospects. Moreover, persistently high unemployment rates and tight financial conditions continue to dampen consumption spending and business investment in several euro area countries.

Against this background, the Swiss economy is expected to continue its expansion in the quarters to come. Available indicators hint at a fairly robust second term in 2013. For instance, monthly data show that exports are gaining momentum, driven by the strengthening of foreign demand. For 2013, we expect the Swiss economy to grow between 1.5% and 2%.

Despite this moderately optimistic outlook, we must be aware that downside risks remain substantial. Let me name three: first, structural problems in Europe persist, and could cause new market tensions. In particular, the European banking system remains vulnerable. Second,

a negative fiscal shock in the US in early 2014, caused, for instance, by renewed political deadlock over public budget negotiations, would probably be a drag on the global economy. Third, adjustments of the monetary policy stance in one area (e.g. the US) may create undesired spillovers in other regions (e.g. emerging markets or Europe). This could lead to increased volatility in financial markets.

What does this economic outlook imply for the likely evolution of interest rates? In the analysis of potential future paths, we have to distinguish between policy rates and market rates. Market rates, in general, respond faster to changes in the economic situation and outlook than policy rates.

The low inflation environment, subdued economic outlook and downside risks that prevail all warrant the continuation of a very accommodative monetary policy with low interest rates. Given the fragile state of the global economy, a premature increase in policy rates would carry the risk of choking off the recovery. In Switzerland, specifically, the subdued inflation outlook (chart 17), the highly valued currency and the fact that a recurrence of financial market tensions cannot be excluded warrant a continuation of the minimum exchange rate policy. In the current situation, the minimum exchange rate remains an essential instrument for preventing an undesirable tightening in monetary conditions should the upward pressure on the Swiss franc intensify again.

Market rates are still determined by the current cyclical weakness of the global economy. Once the global economy gets back on a stronger and broader-based growth path and uncertainty wanes, rates should return to more normal levels. For Switzerland, this would mean that safe haven forces would become less relevant, removing some of the additional negative pressures on domestic interest rates.

Conclusion

In sum, given that we expect a slow, but continued improvement of the world economy, market rates are set to gradually recover to more normal levels over time. Such a scenario will allow central banks to progressively scale back their crisis measures and, eventually, lift policy rates off the zero lower bound. We are clearly not there yet, however. The global economy is still fragile and the level of uncertainty remains elevated. Markets understandably expect policy rates to remain low for several quarters in the future.

While at a qualitative level the outlook is thus relatively clear, the road back to normality will probably be long and possibly bumpy. After all there is no precedent for the situation we have experienced and for the exceptional measures taken by monetary authorities. At the same time, as we have discussed, an extended period of low interest rates may entail significant risks for financial stability. These require the full attention of the authorities, who should be ready to use appropriate instruments, if needed, to keep these risks in check.

References

Adrian, T., Shin, H. (2009). *Financial Intermediaries and Monetary Economics*. Federal Reserve Bank of New York Staff Reports, No. 398.

Bernanke, B. (2004). *The Great Moderation*.

<http://www.federalreserve.gov/BOARDDOCS/SPEECHES/2004/20040220/default.htm>

Bernanke, B. (2007). *Global imbalances – recent developments and prospects*.

<http://www.federalreserve.gov/newsevents/speech/bernanke20070911a.htm>

Bloom, D., Canning, D., Sevilla, J. (2001). *Economic Growth and the Demographic Transition*. NBER Working Paper No 8685.

Borio, C. (2012). *The financial cycle and macroeconomics: What have we learnt?* BIS Working Paper No 395.

Borio, C., Zhu, H. (2012). *Capital regulation, risk-taking and monetary policy: A missing link in the transmission mechanism?* Journal of Financial Stability, vol. 8, pages 236-251.

Christensen, J., Rudebusch, G. (2012). *The Response of Interest Rates to US and UK Quantitative Easing*. The Economic Journal, Royal Economic Society, vol. 122, pages 385-414.

Gagnon, J., Raskin, M., Remache, J., Sack, B. (2011). *The Financial Markets Effects of the Federal Reserve's Large-Scale Asset Purchases*. International Journal of Central Banking, vol. 7 (1), pages 3-43.

Gambacorta, L. (2009). *Monetary policy and the risk-taking channel*. BIS Quarterly Review, December 2009, pages 43-53.

Gordon, R. (2012). *Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds*. NBER Working Paper No. 18315.

Miller, M., Weller, P., Zhang, L. (2002). *Moral Hazard and the US Stock Market: Analysing the 'Greenspan Put'*. The Economic Journal, Royal Economic Society, vol. 112, pages 171-186.

Schularick, M., Taylor, A. (2012). *Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008*. American Economic Review, American Economic Association, vol. 102(2), pages 1029-61.

Tinbergen, J. (1954). *Economic Policy: Principles and Design*. North Holland Publishing Company.

Causes and consequences of low interest rates

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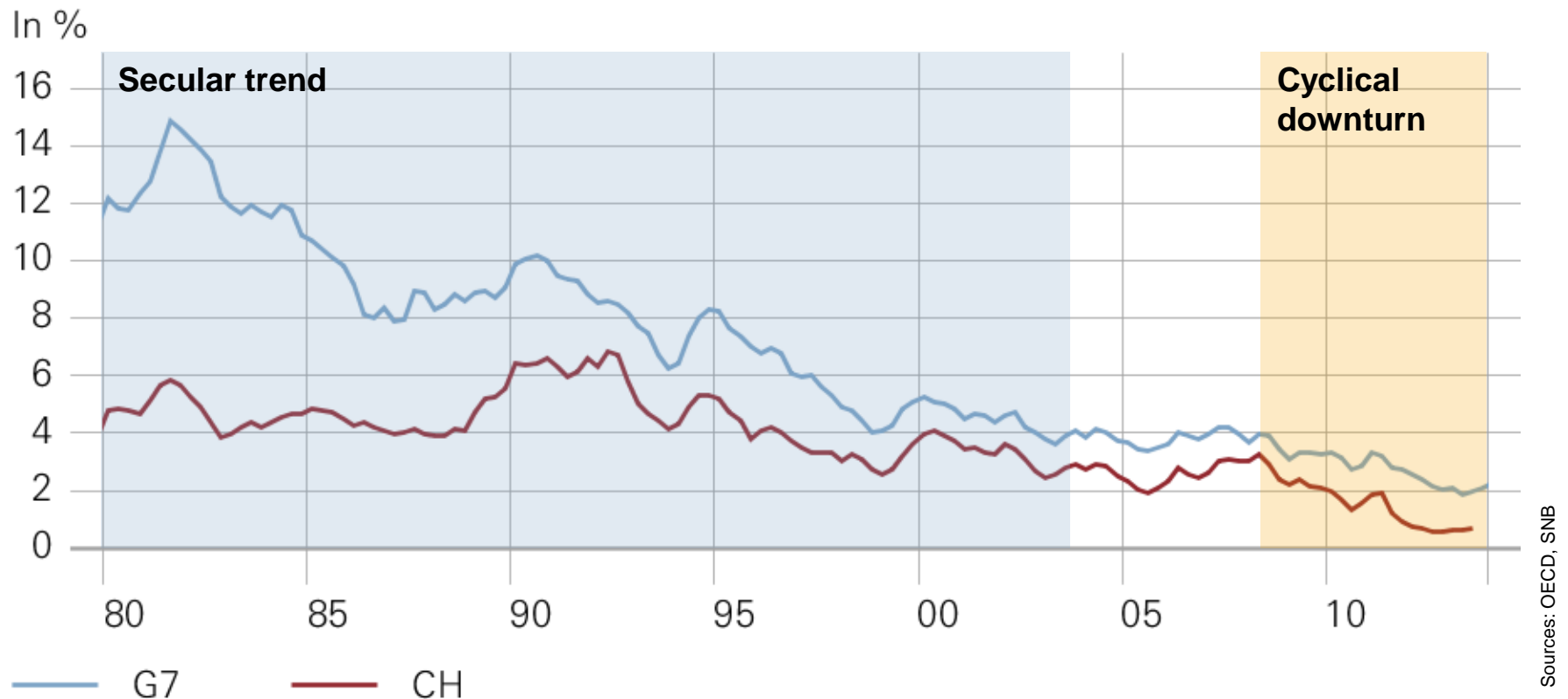
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Low interest rates as a result of a secular trend and a cyclical downturn

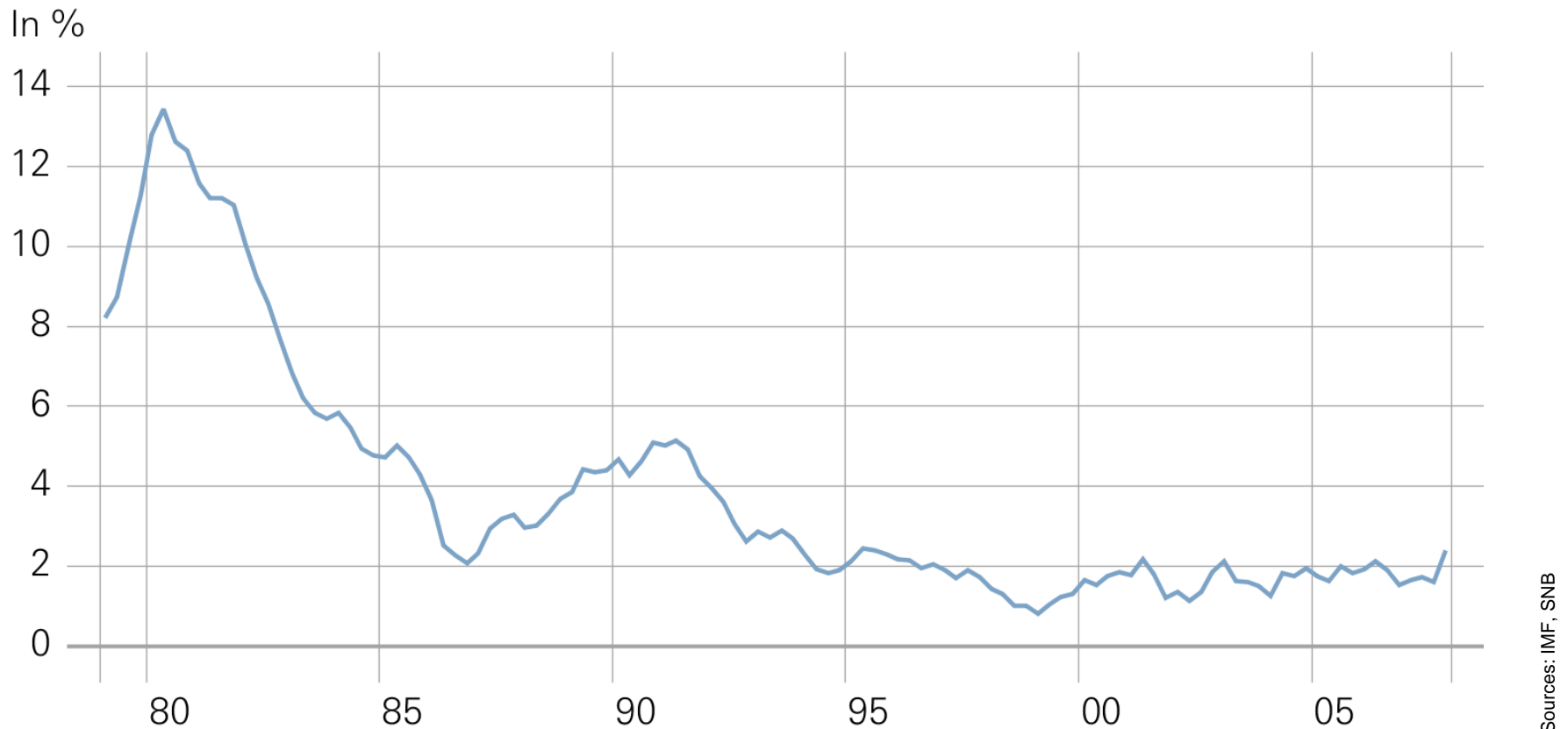
CHART 1: NOMINAL LONG-TERM INTEREST RATE OF G7 AND SWITZERLAND



Sources: OECD, SNB

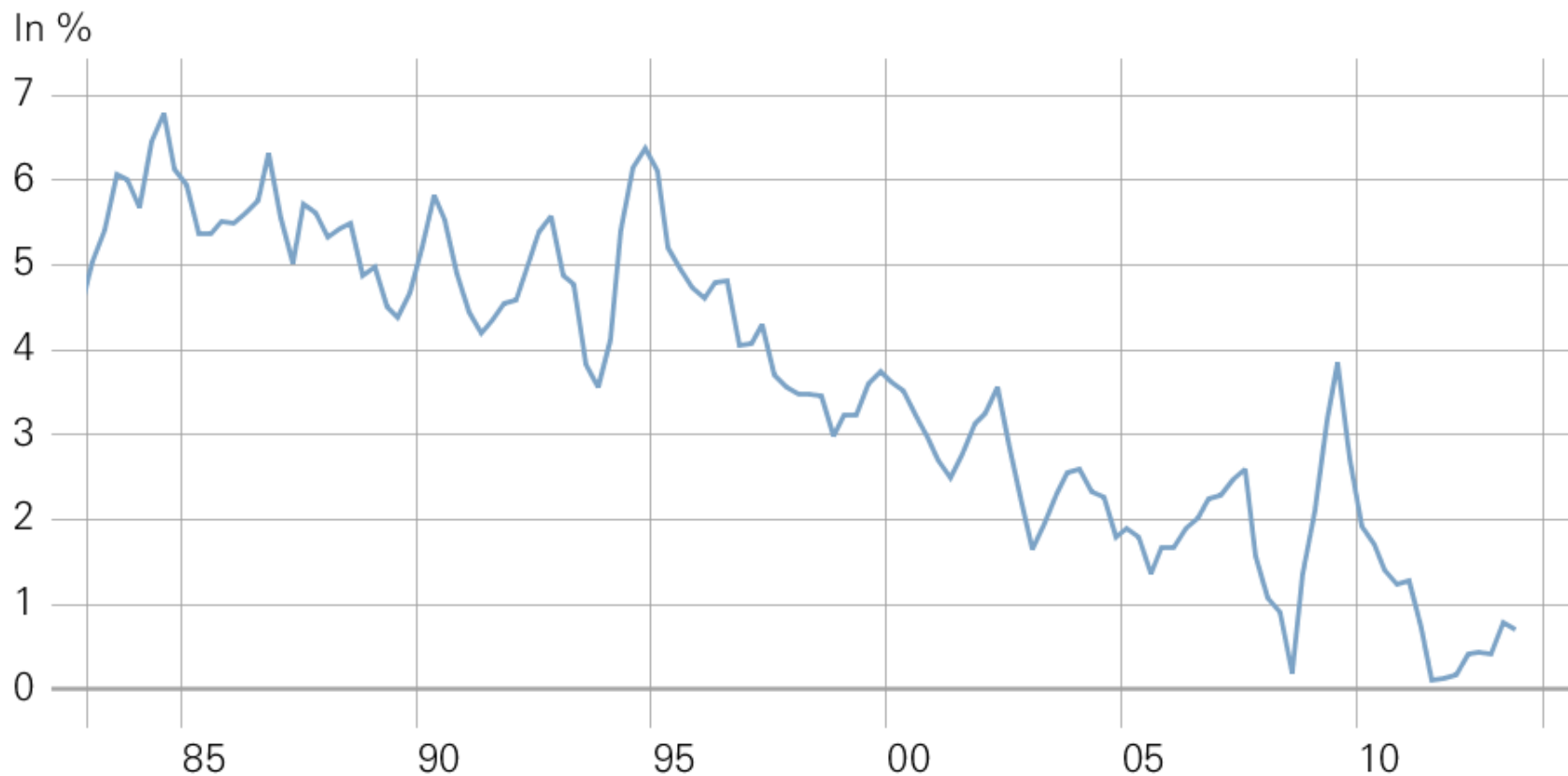
Explaining the secular trend: lower inflation premium

CHART 2: INFLATION RATE G7



Explaining the secular trend: declining real interest rates

CHART 3: REAL LONG-TERM INTEREST RATE G7

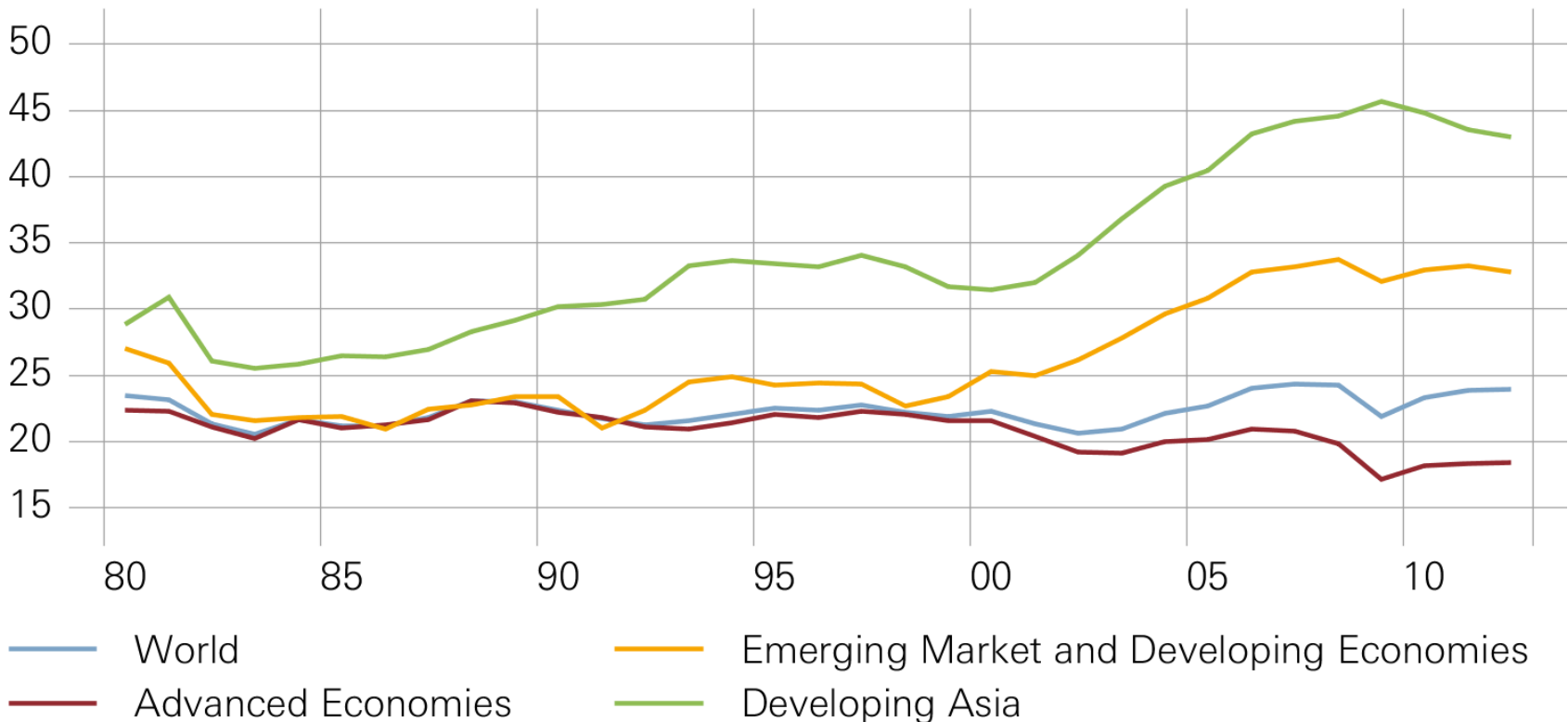


Sources: OECD, IMF, SNB

Explaining declining real rates: the savings glut hypothesis

CHART 4: GROSS NATIONAL SAVINGS

As % of GDP



Source: IMF

Explaining declining real rates: lower potential growth?

CHART 5: GLOBAL POPULATION GROWTH

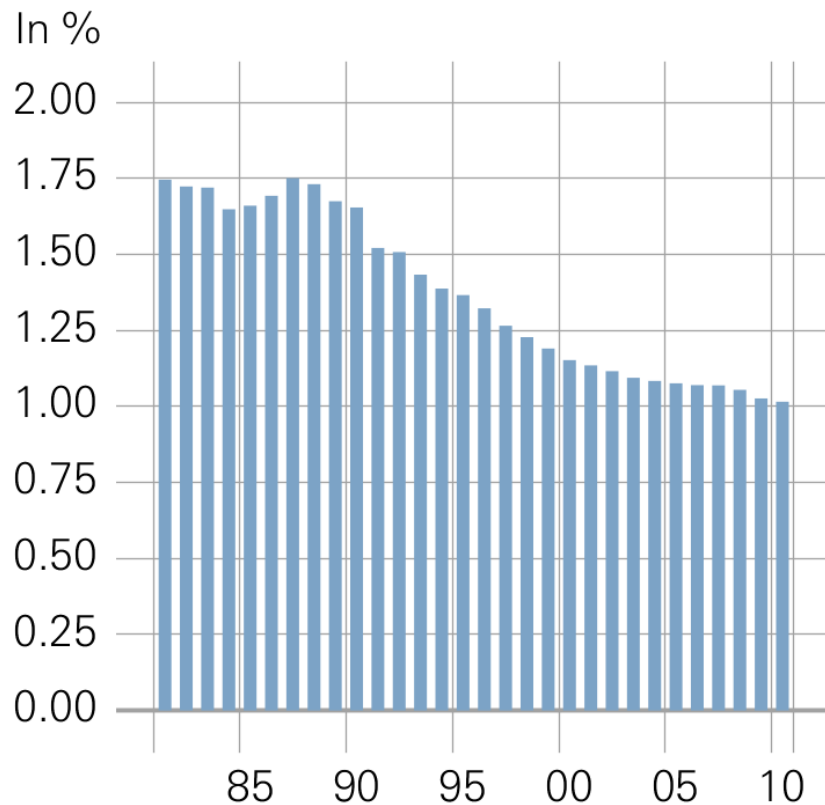
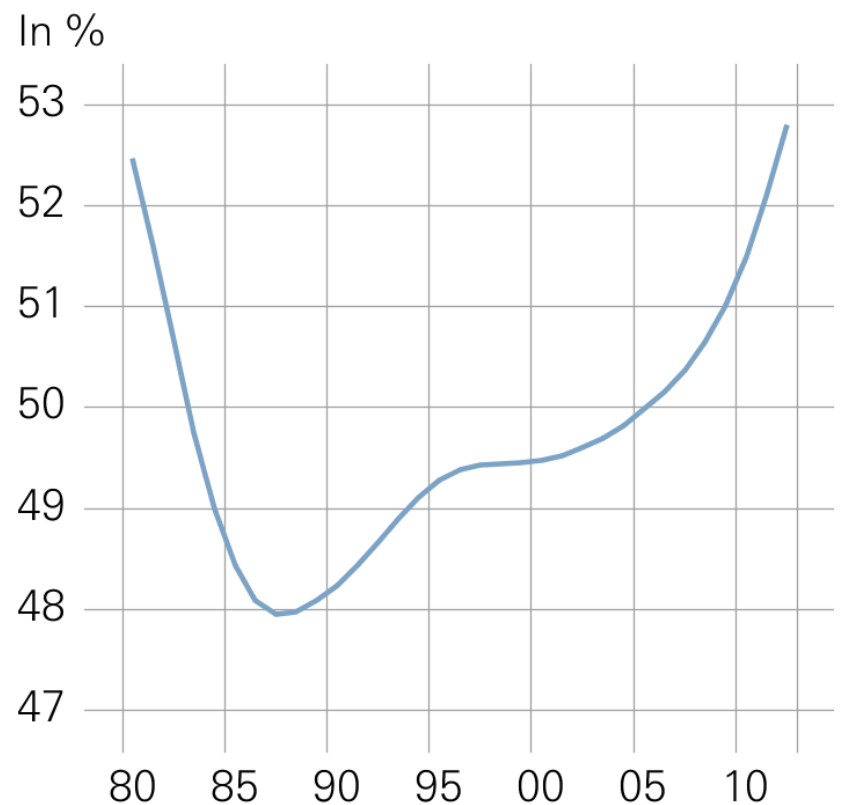


CHART 6: DEPENDENCY RATIO

G7 average

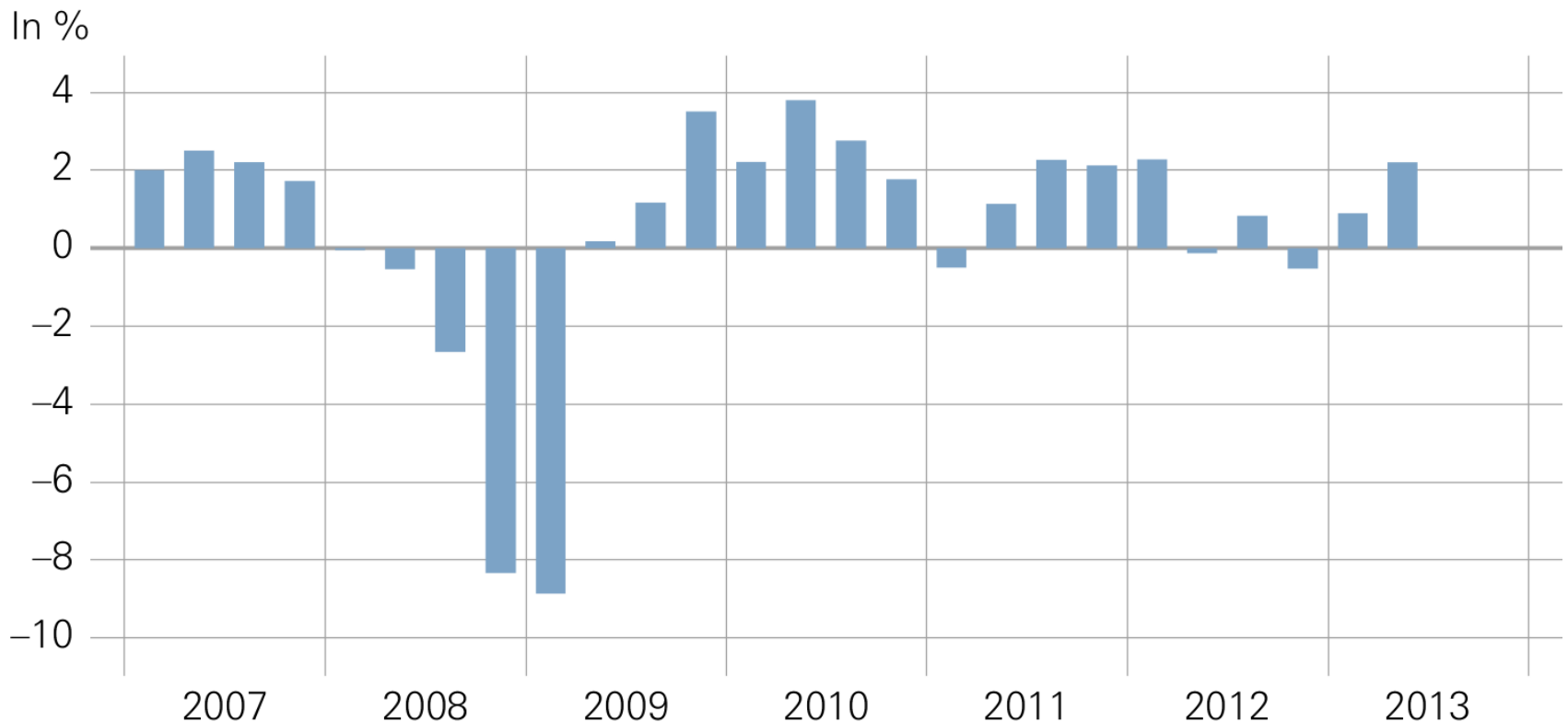


Sources: Penn World Tables Version 7.1; The World Bank

Explaining the cyclical downturn: a severe economic crisis followed by a weak recovery

CHART 7: REAL GDP GROWTH IN ADVANCED ECONOMIES¹

Year-on-year changes, annualised



1: United States, Euro area, United Kingdom, Japan
Source: SNB

Explaining the cyclical downturn: decisive central bank reactions to the crisis

CHART 8: POLICY RATES

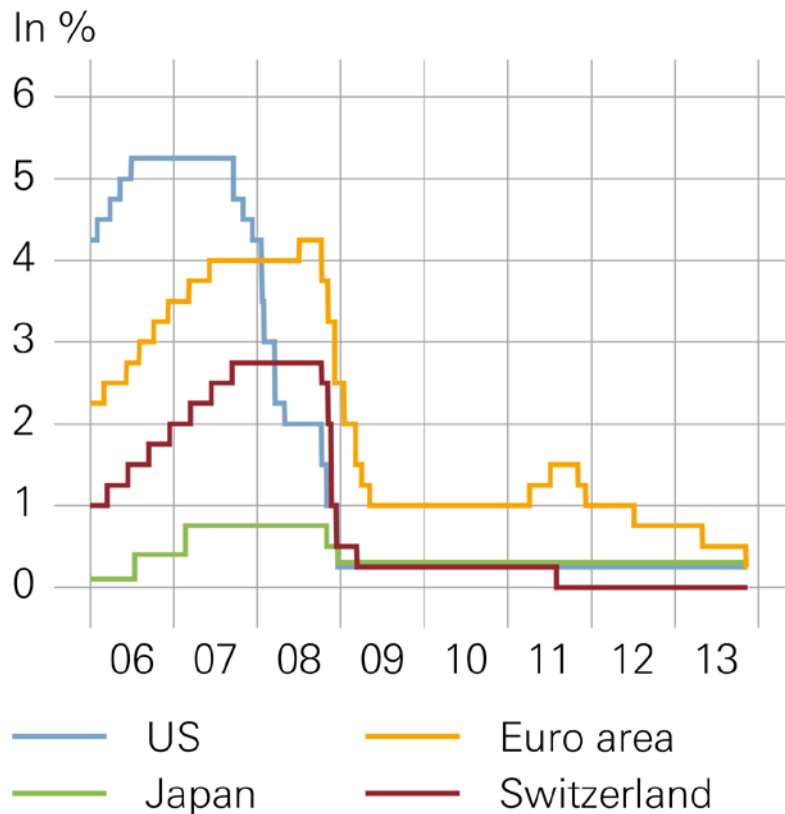
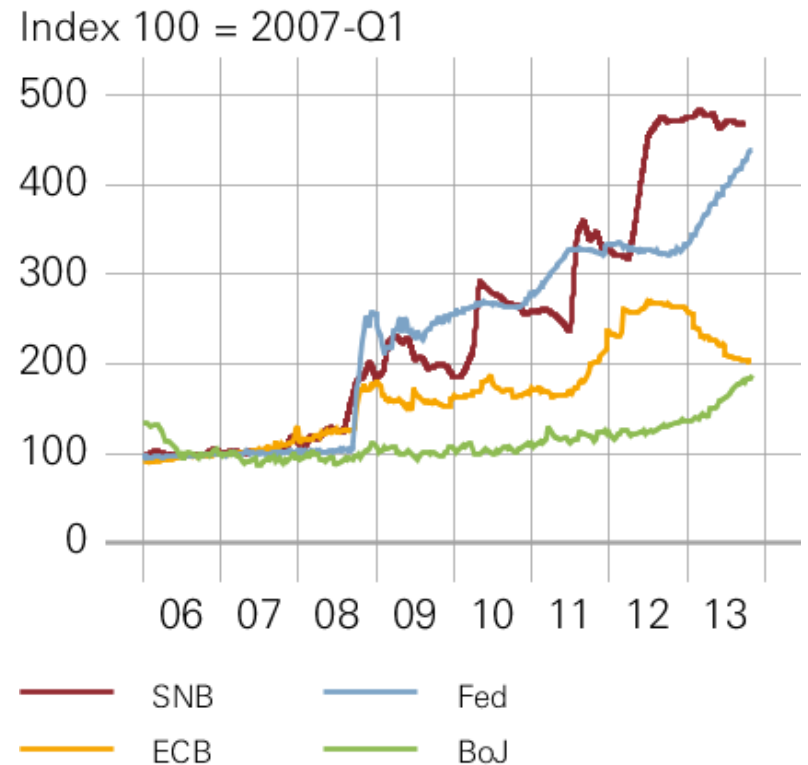


CHART 9: CENTRAL BANKS' TOTAL ASSETS



Sources: SNB, Bloomberg; SNB, FED, Bloomberg

The Swiss case: safe haven pressures pushing interest rates to very low levels...

CHART 10: INTEREST RATES IN SWITZERLAND



Source: SNB

...and pushing the franc to unprecedented heights

CHART 11: NOMINAL EXCHANGE RATES

Daily

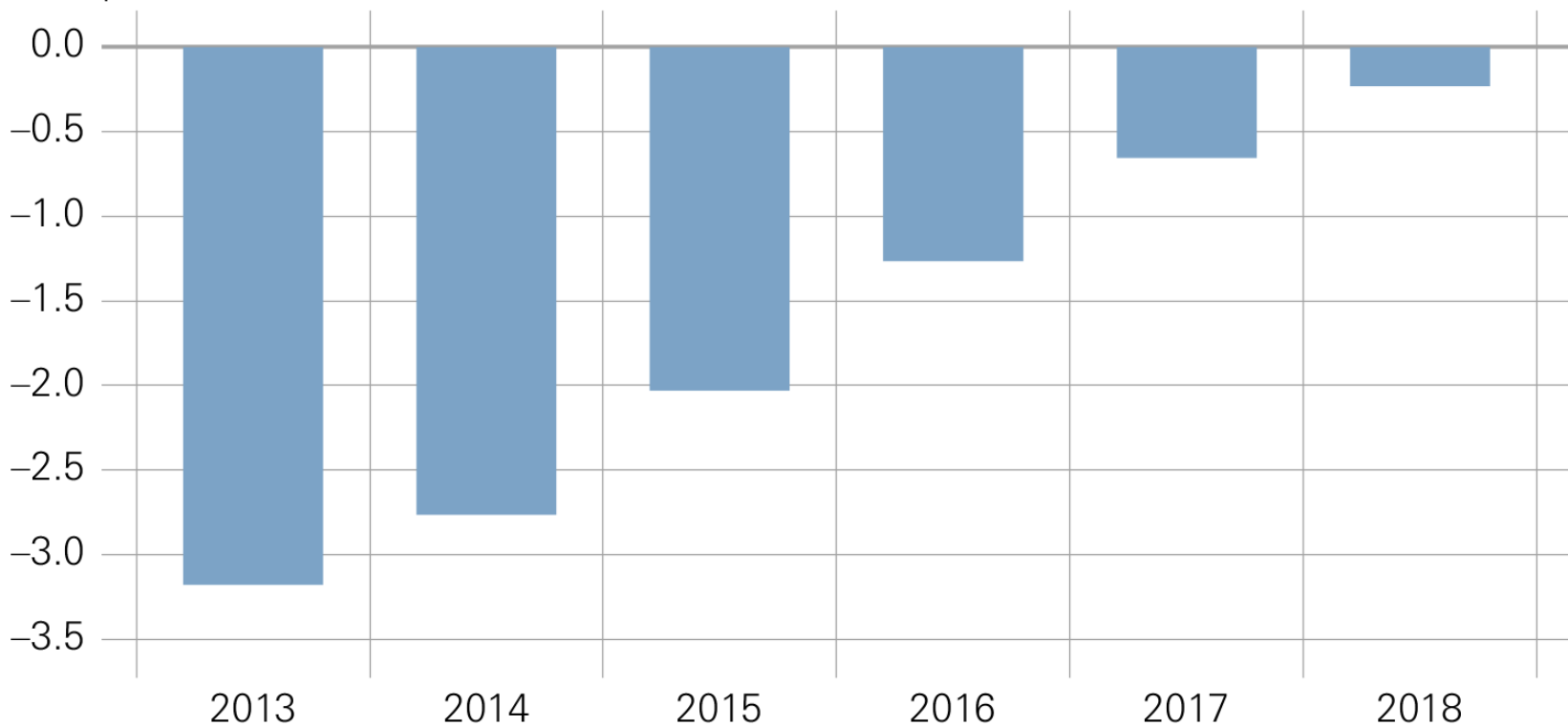


Source: SNB

Consequences of *low for long*: increasing inflation pressures?

CHART 12: OUTPUT GAP PROJECTIONS G7

% of potential GDP



Sources: Bloomberg, OECD

Consequences of *low for long*: financial instability?

CHART 13: MORTGAGES-TO-GDP

Switzerland

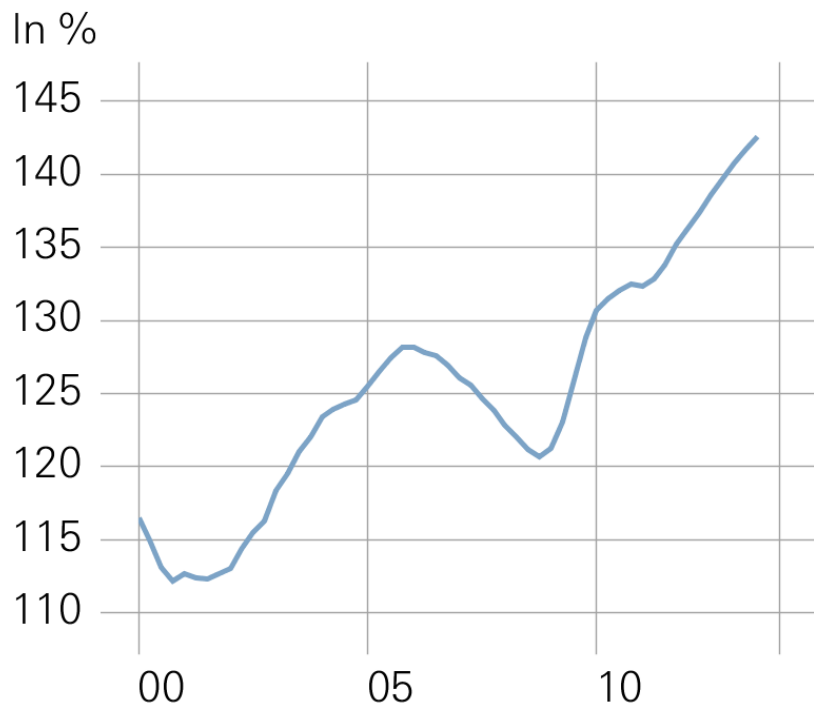
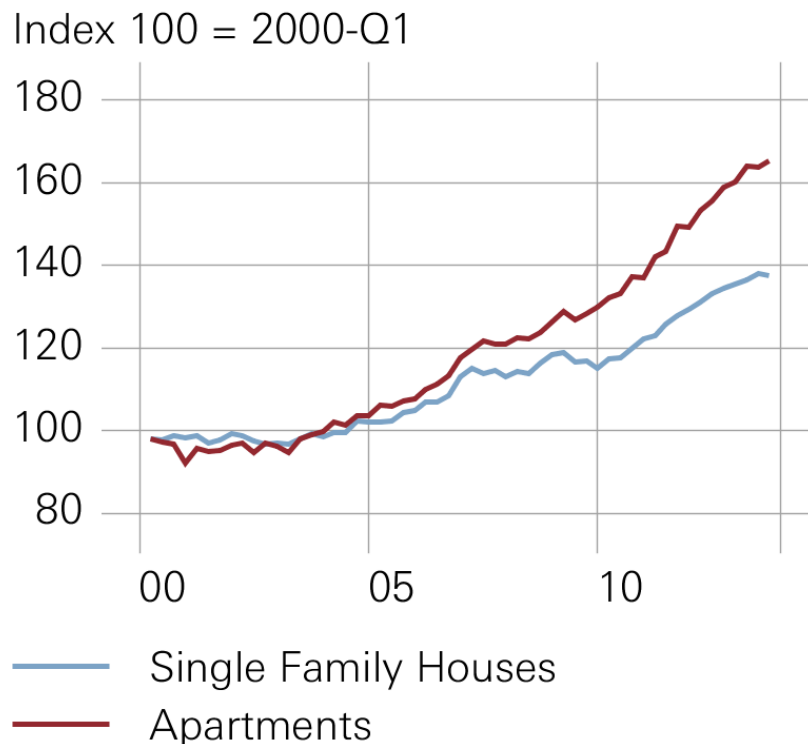


CHART 14: SWISS REAL ESTATE PRICES

Transaction prices in real terms (WP)



Sources: SNB; Wüest & Partner

Consequences of *low for long*: financial instability?

CHART 15: YIELD SPREADS

Difference between BBB and AAA Corporate Bond Index

In percentage points

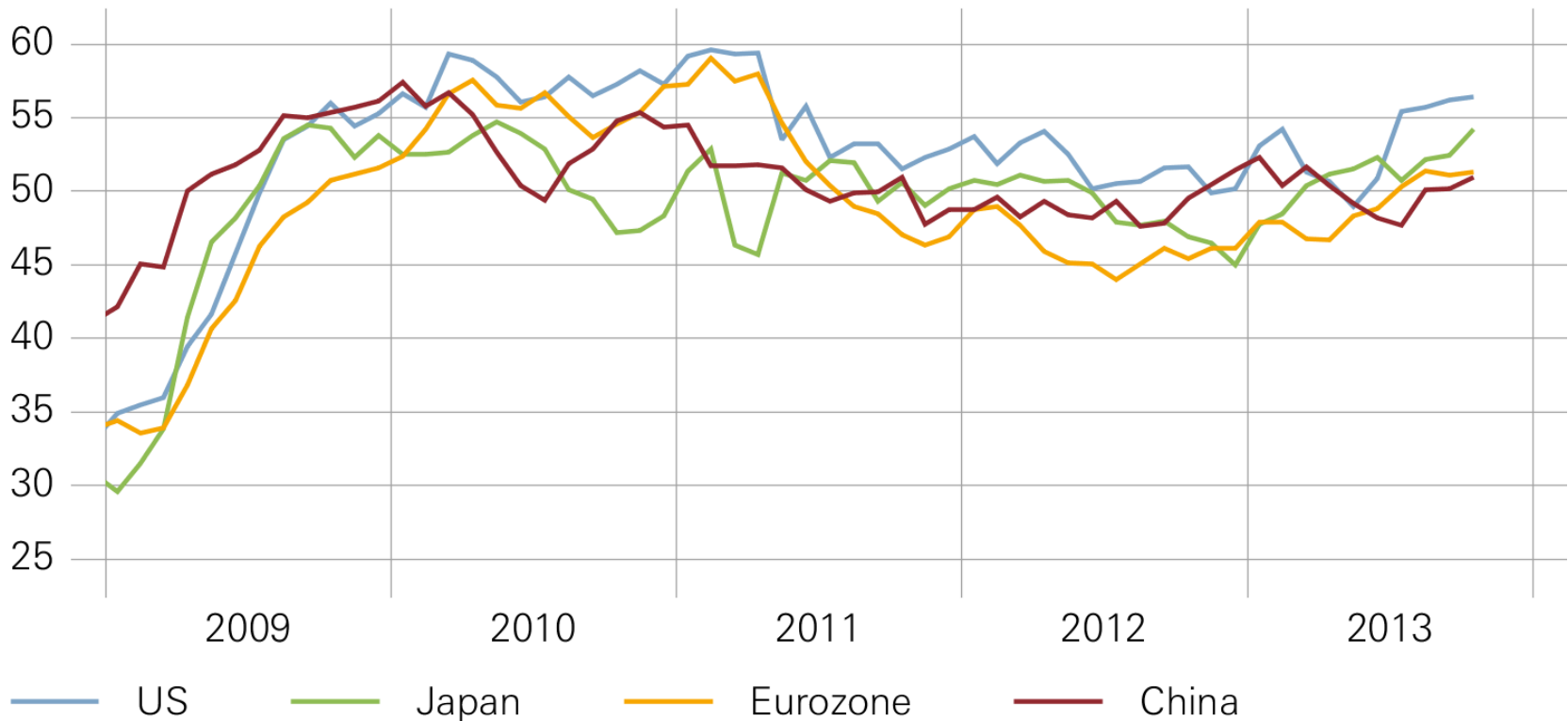


Sources: FRED, Bank of America Merrill Lynch

Outlook: gradual recovery of the global economy to continue

CHART 16: BUSINESS CONDITIONS

Purchasing Managers' Indices

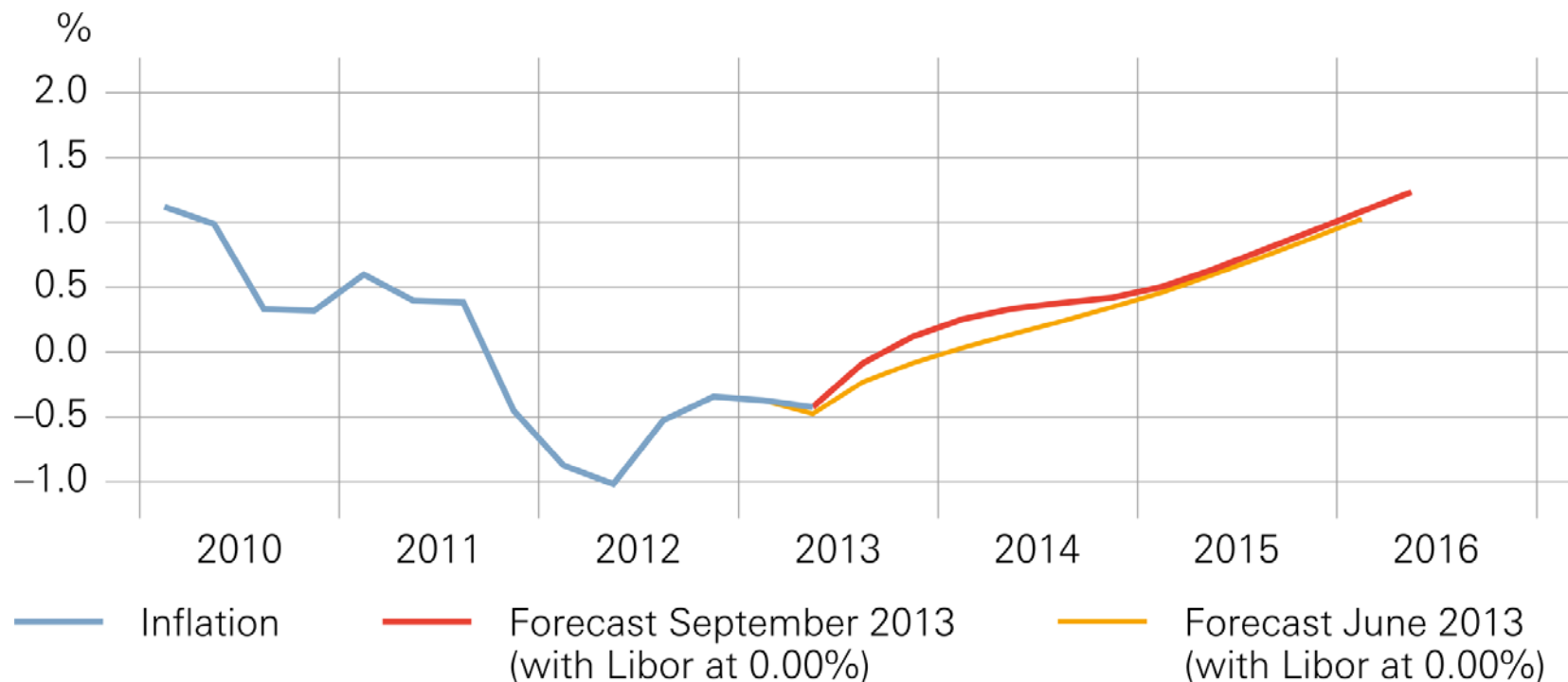


Sources: ISM, SNB

Outlook: current situation asks for a continuation of the accommodative monetary policy

CHART 17: CONDITIONAL INFLATION FORECAST OF SEPTEMBER 2013

Percentage change in Swiss consumer price index from previous year



Source: SNB

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