How an interest rate turn-around would affect the Swiss economy

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Dear Reader

Apart from minor cyclical fluctuations, interest rates in Switzerland have fallen continuously over the last 30 years, and after 2015 even went into the negative territory that had previously seemed barely conceivable. However, a countermovement has now set in for some months: While short-term interest rates in Switzerland still remain strongly negative, rates at the long end have edged just back into positive territory. Is this the long-awaited interest rate turnaround?

In our view the answer is “yes and no”. The acceleration of the economy, slight pickup in inflation and initial moves by the central banks toward a cautious normalization of their monetary policy on the one hand point toward a further rise in interest rates. However, this is set to be limited as a sharper upturn in both inflation and real interest rates seems unlikely. Two key factors are restricting the inflation risk: First of all there remain significant surplus capacities across the world that will limit cyclical price increases for the time being. Secondly – and this is probably more important with a view to the longer-term inflation trend – there are no signs that the central banks intend to deviate from their mandate of price stabilization. This is curbing the inflation expectations of employees and companies, while price and wage increases are only proving subdued. There would only be a risk of a sharper rise in inflation if the central banks were to be forced to depart from their mandate. The increase in real interest components should likewise remain limited. The demographics speak against higher potential growth and therefore for continued low real interest rates. Moreover, from a global perspective there is an ongoing trend toward savings surpluses: Uncertainties regarding the financial strength of government social welfare systems and private pension systems are increasing the savings pressure on households, while the demand from companies for investment resources remains limited.

Although altogether we can only expect a moderate interest rate rise, the effects of a countermovement – particularly after a more prolonged phase of extremely low interest rates – need to be examined more carefully. This is what our economists attempt to do on the following pages. The most important conclusions can be summarized as follows: Firstly, a moderate rise in interest rates is hardly likely to influence the key demand components comprising private consumption, corporate investments and thus the overall economy. Secondly, although both private and institutional investors will have to expect temporary setbacks to their fixed income investments, a balanced portfolio should hold out well. Thirdly, an interest rate rise should generally boost the earnings of both banks and other financial institutions. The core risk lies with the real estate market as higher interest rates put pressure on property values and simultaneously drive up the financing costs. Leverage effects can arise where the period of low interest rates has tempted borrowers to incur excessive debt. However, in view of the precautionary measures taken by authorities and banks since the financial crisis, the risk of negative overall economic effects remains limited.

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CEO Swiss Universal Bank   CIO Office Switzerland
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Swiss Economy

From growth weakness to a mini-boom

The Swiss economy is set to grow by 2.2% in 2018, which is significantly stronger than in the previous year. The key growth drivers are demand from abroad and investments in equipment.

Swiss economic output increased by 0.6% on the previous quarter in the fourth quarter of 2017 and therefore only grew marginally slower than in the third quarter of 2017 (+0.7%). The last time such a high growth rate was recorded was back in 2014 immediately before the abandonment of the minimum EUR/CHF exchange rate. However, because growth at the start of the previous year was very weak, gross domestic product (GDP) in 2017 was on average only 1% up on its prior-year level. We expect the growth rate in 2018 to be steadier and similarly high to in the second half of 2017.

The most important growth driver of the Swiss economy at present is the extremely dynamic global economy. For the Eurozone – the key sales market of Swiss export products – the past year was the best one in a decade. The Eurozone is set to uphold its growth rate in 2018 as the falling unemployment is supporting the sustainability of the upturn. Full employment is to all intents and purposes prevailing in the US, and the tax cuts and spending increases of the US government will in the short term tend to stimulate demand excessively. Growth in the emerging markets remains robust, although still lacking momentum by their standards. China’s growth, for instance, has leveled out at just over 6%. Our Export Barometer measuring the economic performance in the purchasing countries of the Swiss export industry is therefore close to its previous peak (see Figure). The volume of exports should increase by around 4% in 2018.

At the same time, the depreciation of the CHF – especially in comparison with the EUR – is taking the pressure off companies in terms of margins and profits. The net operating surplus, an approximation of the profits of all companies in Switzerland, has more than compensated the loss following the franc appreciation of 2015 (see Figure) and even the total profits of 2010 are set to be exceeded again in 2018. Profits serve as a catalyst for investments in equipment as cash flow is an important source of funding for the latter. In view of the positive economic outlook, the capacity utilization that is now above average again and the improved profit situation, we anticipate above-average growth of investments in equipment for this year (+4.0%).
Swiss indicators pointing upwards

The accelerating and comparatively broad-based growth in Switzerland is supported by numerous indicators, as shown by the “heatmap” in the illustration below. Growth of private consumption is also set to accelerate further, although at 1.4% it is likely to remain below the average of the past ten years (+1.7%). The reason for this is that real wage growth (+0.2%) is too low and employment growth (+1%, see Figure) still too weak for above-average growth momentum. Furthermore, immigration – the most important growth driver of private consumption in the past ten years – has declined markedly. We expect it to stabilize at the lower level of 50,000 immigrants in net terms in 2018 (see page 7).

 Builders set to respond to overproduction

Meanwhile, the growth of construction investments should already slow down somewhat in 2018 (+1.4% compared with +1.9% in the previous year). Although the backlog of orders remains high in all segments of the construction industry, the increasing vacancies due to years of over-production of new rental apartments and to some extent also of commercial properties are likely gradually to cause builders to take their foot off the accelerator.

Olympics and Football World Cup set to distort GDP upwards in 2018

The large difference in GDP growth between 2017 and 2018 is also attributable to a special statistical effect. Since the revision of the GDP statistics last year, royalty income from international sporting events such as Football World Cups or Olympic Games has been attributed to the country in which the corresponding associations have their head office, which in the case of the Fédération Internationale de Football Association (FIFA), the Union of European Football Associations (UEFA) and the International Olympic Committee (IOC) is Switzerland. While no such sports galas took place last year, this year there will be several. According to the State Secretariat for Economic Affairs, the difference can account for a good 0.3 percentage points of growth.

Immigration and property cycle losing strength

Following immigration, the construction industry as a second important growth driver of the Swiss economy is therefore also set to lose strength in 2019. Because the growth momentum from abroad should at the same time also be lower again than this year, Swiss GDP growth in 2019 is likely to slow down (current forecast: +1.7%). The positive effects of the increasingly dynamic recovery of the labor market will not be able to prevent this loss of momentum. There at least remains no prospect of significantly higher inflation in Switzerland: We expect average inflation of 0.5% in 2018 and 0.7% in 2019 (see page 7).

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Swiss Economy | Monitor

Labor market

The improvement on the labor market remains underway. For the first time since 2012, the unemployment rate has fallen back below 3% and therefore also below its long-term average. According to consumer surveys of the State Secretariat for Economic Affairs (SECO), the majority of consumers also expect greater job security for the next 12 months. Thanks to the expected significant acceleration of economic growth, the situation on the labor market should continue to improve as the year progresses and unemployment should level out at 2.9%.

Immigration

Net migration to Switzerland declined in 2017 for the fourth time in succession. Taking into account the migration of Swiss citizens, net migration will have reached around 52,000 persons. This development is primarily attributable to the improvement of the labor market situation in the European countries of origin, while Swiss companies simultaneously held back with recruitments following the franc appreciation. However, we expect a stabilization in the current year at around 50,000 persons. The effects of a continued recovery in Europe and an acceleration of the Swiss economy are set to balance each other out.

Inflation

Inflationary pressure should remain subdued in both 2018 and 2019. For example, the prices in the healthcare sector that are strongly influenced by politics will fall again. The prices of household goods and communication should see a similar trend. Rents are exerting a slightly inflationary impact, although the expansion of the supply of rental accommodation should contain the increase. We are generally also expecting a rise in the prices of services such as in the education and catering sectors. We confirm our inflation forecast for 2018 of 0.5%; we furthermore expect an inflation rate of 0.7% for 2019.
**Focus: Interest rates**

**How an interest rate turnaround would affect the Swiss economy**

In relation to economic output, the Swiss economy is similarly heavily in debt as Italy, the US and China. Although the interest elasticity is generally low, the interest rate risk ought not to be treated lightly.

Further rise in interest rates seems very likely

With the global economy picking up, interest rates have recently also been set in motion in Switzerland (see Figure). Although the Swiss National Bank (SNB) is expected to leave the target range for the three-month CHF LIBOR unchanged within negative territory until 2019, more long-term interest rates have risen markedly. Should the global upturn persist, inflation pick up and the SNB start to move, it is extremely likely that this increase will continue. What would be the consequences of significantly higher interest rates for the Swiss economy?

Interest is relevant for highly indebted Switzerland

The first and somewhat simplified answer is that higher interest rates are bad news for borrowers and good news for creditors. Contrary to popular thinking, at almost 250% the debt level in Switzerland in relation to economic output (gross domestic product, GDP) is similarly high to that of Italy, the US and China (see Figure). However, the distribution of debt differs significantly from that abroad. While public debt in Switzerland is lower than almost anywhere else in the world and companies (excluding banks) are also in relatively little debt, the indebtedness of private households lies at record levels.

Swiss households with record debt levels ...

The debts of Swiss private households primarily consist of mortgage debts, with 95% of all loans covered by real estate. The mortgage debts amounting to over CHF 730 billion (largely held with Swiss banks) currently pertain to real estate with an estimated countervalue of more than CHF 1,900 billion. The effects of a change in interest rates would therefore be of major relevance both for the real estate market and for the domestic banking sector. We have therefore conducted a detailed analysis of both these areas (see page 12 and page 15).

... but currently comparatively low debt servicing

Despite the high private debt, the share of income households are having to use for interest payments is currently lower than it has ever been (see Figure). The reason for this is that mortgage interest rates are at record lows despite the recent increase. The average mortgage interest rate currently lies at around 1.6%. By comparison, if mortgage interest rates were as high today as in 2007 (3.3%), owner households would have to spend twice as much money as today to service the debt. If the interest rate level were even as high as during the peak times of the 1990s (7.8%), debt servicing would account for five times as much. Specifically we would

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**Interest rates appear recently to have bottomed out**

Return on ten-year sovereign bonds in %

<table>
<thead>
<tr>
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<td>10.0</td>
<td>0.0</td>
<td>2.0</td>
<td>4.0</td>
<td>6.0</td>
<td>8.0</td>
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<td>2.0</td>
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<td>8.0</td>
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<tr>
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<td>0.0</td>
<td>2.0</td>
<td>4.0</td>
<td>6.0</td>
<td>8.0</td>
<td>10.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Source: Datastream, Credit Suisse

**Swiss debt level similar to Italy and China**

Debt as % of GDP

<table>
<thead>
<tr>
<th>Country</th>
<th>Government</th>
<th>Households</th>
<th>Non-financial corporates</th>
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</thead>
<tbody>
<tr>
<td>Germany</td>
<td>30%</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>Switzerland</td>
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<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>Italy</td>
<td>60%</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>USA</td>
<td>60%</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>UK</td>
<td>70%</td>
<td>30%</td>
<td>0%</td>
</tr>
<tr>
<td>China</td>
<td>80%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Denmark</td>
<td>90%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Spain</td>
<td>70%</td>
<td>30%</td>
<td>0%</td>
</tr>
<tr>
<td>France</td>
<td>80%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Japan</td>
<td>90%</td>
<td>10%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Bank for International Settlements, Credit Suisse
be talking about CHF 12 billion (2007) or CHF 44 billion (1990s) more per year than at present. Even just a return to the interest rates of 2007 could therefore significantly burden household budgets.

Despite the relevance of interest rates for the budgets of homeowner households, our empirical analysis shows that private consumption altogether barely responds to interest rate changes – in technical terms, its “interest elasticity” is very low (see Figure). It is assumed here that other influencing factors such as the economic situation, inflation and the exchange rate do not offset the interest effect.

One of the reasons for the low interest elasticity is of a statistical nature: Mortgage interest payments are included in the calculation of GDP as consumer expenditure for housing. Higher debt servicing therefore increases private consumption and in doing so offsets (although probably only partially) the budget-induced consumption restraint among other consumer goods such as holidays and retail expenditure. Furthermore, because fix mortgages (fixed interest rate over a given term) account for around 80% of the volume of mortgages, homeowners only feel the effects of interest rate changes with a delay. However, the interest elasticity of mortgage lending to households is slightly negative. The demand for mortgages therefore decreases as interest rates rise (see Figure). The majority of households in Switzerland – namely tenants with a share of 62% – also only feel the effects of interest rate changes after a delay and with less intensity as the base mortgage rate, which is just one of several factors determining the amounts of rents, responds sluggishly due to the many fix mortgages.

The fact that the influence of interest rates on overall consumption is very limited is also confirmed by economic theory, according to which consumption is primarily dependent on employment and wages, i.e. on employment income. At a secondary level households aim to keep their consumption as constant as possible over time. It is therefore savings ratios rather than consumer spending that tend to fluctuate more as incomes go up and down. Our empirical analysis shows that the savings behavior of households is very much affected by interest rates: The higher interest rates are, the less non-interest-bearing liquidity is held and the lower the amounts held in current accounts paying lower interest rates (i.e. the interest elasticities are negative). Assets are instead invested in savings accounts, equities and bonds (i.e. the interest elasticities here are positive). It is just the negative interest elasticity of funds that raises questions as these investment vehicles ought really also to become more attractive as interest rates rise.

However, in the current negative interest environment there are increasing signs that despite the lower interest income households are saving more rather than less as this is the only way for them to achieve a given savings target. Paradoxically, the savings ratio could therefore actually fall somewhat in the event of a sharp rise in interest rates and the consumption ratio correspondingly increase. The low interest environment poses a considerable challenge also for institutional

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**Record level debt servicing of households**

Mortgage debt servicing in relation to gross domestic product

**Interest elasticity of various indicators**

Heatmap: green = positive interest elasticity, red = negative interest elasticity, gray = no interest elasticity

**Households**

- Savings account*
- Bonds
- Equities
- Consumption
- Mortgages
- Liquidity
- Funds
- Current account*

**Companies**

- Investments in equipment
- Loans
- Mortgages
- Construction investments

**Government**

- Consumption

Source: SNB, State Secretariat for Economic Affairs, Federal Office for Housing, Credit Suisse

*estimated based on banking statistics
savers. In order to assess whether they too would adjust their investment behavior in the event of a rise in interest rates, we have carried out an analysis in our article on page 19 of how their assets would respond to an increase in interest rates.

According to our analysis, investment decisions by companies are also barely affected by changes in the interest environment. This finding comes as little surprise as according to the popular school of thought the investment propensity of companies primarily depends on their expectations concerning the return on investment and the future business situation as well as on the “animal spirits”, i.e. corporate optimism. By contrast, only secondary importance is often attached to the financing conditions (including the interest rate level) for investment decisions. This finding is confirmed by the results of our SME study in 2015. Only just under a third of the small and medium-sized enterprises (SMEs) canvassed reported that the markedly lower interest rates between 2009 and 2014 had exerted a positive or very positive impact on the volume of their investments; for over 60% the low interest environment had no influence. Conversely, an increase in interest rates would probably also only result in a small influence – not least because according to our SME survey financing with equity and/or self-generated cash flows rather than with loan capital plays a leading role.

The survey results also showed that companies reporting a positive impact of the low interest rates on their investments allocated a larger share of their investment resources to real estate. The effects of a sharp rise in interest rates are also likely to be most strongly felt here: In our “heatmap” in the illustration on the previous page, construction investments are the demand category with the most marked negative interest elasticity. As mortgage loans to companies have risen sharply in recent years, with the share of mortgage receivables in the total volume of corporate loans of around CHF 320 billion increasing to 70% since the financial crisis (see Figure), a rise in interest rates could exert an additional negative impact on construction activity.

Meanwhile, at least in the shorter term the Swiss government would barely be affected by a rise in interest rates as public sector debt in Switzerland is comparatively low. Around half of the government debt of around one third of GDP lies with the Federal Government, while the remainder is divided in approximately equal halves between the cantons and the municipalities. The extremely low interest rates are enabling the Federal Government to make estimated annual savings of over CHF 200 million and debt servicing has additionally declined thanks to the reduction of the debt level (see Figure).

The immediate effect of a marked rise in interest rates would be minimal as over 80% of the currently outstanding Swiss Federal Bonds were issued with terms of ten years and more. The threat to the stability of the federal budget therefore clearly comes less from the interest environment and more from the performance of the economy and the stability of the social insurance schemes, the deficits of which are already foreseeable. Retirement provision thus poses a greater threat to the federal finances than a rise in interest rates.

**Government reducing debts and benefiting from negative interest rates**

**“Animal spirits” and not interest rates drive corporate investments …**

**… but construction investments are clearly sensitive to interest rates**

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**Companies with more mortgage loans**

<table>
<thead>
<tr>
<th>Loans to companies, in CHF bn.</th>
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<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>300</td>
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</table>

Source: Swiss National Bank, Credit Suisse

**Government paying less for debt servicing**

Government debt servicing in relation to gross domestic product

Source: Swiss Federal Statistical Office, Credit Suisse
The cantons also benefit as borrowers from low interest rates, although some of them such as Zurich, Zug and Vaud at times also hold large quantities of liquid assets that would yield greater earnings in an environment of higher interest rates, which somewhat reduces the benefit of low interest rates. However, the debt servicing of the cantons – and likewise that of the municipalities – has also decreased, although less strongly than that of the Federal Government owing to the rising trend in the debt level. Trouble for government finances therefore lurks more in the free-handedness of politicians than on the interest side.

Although the interest elasticities of both overall consumption and corporate investments are low and the low indebtedness of the public sector also points toward low interest risks, the interest rate risk ought not to be treated lightly. First of all, our model – as with most economic players – has no experience of really high interest rates as there have no longer been any high interest rates in the last 20 years so that the effects of a rise in interest rates are likely to be underrated. Secondly, the indebtedness of private households is at record levels and concentrated on a relatively illiquid asset, namely real estate. And thirdly, the corporate sector is also heavily invested with borrowed funds in the real estate market, thereby further increasing the ‘cluster risk’ of this generally interest-rate sensitive market.

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Rising interest rates as a burden

A future rise in interest rates would have significant effects on the Swiss real estate market, with the strength and timing of the impact differing from segment to segment.

The low mortgage interest rates have been the key driver of the high demand for owner-occupied housing in recent years. Thanks to the fall in mortgage interest rates, the mortgage interest burden of homeowners has fallen to 39% of the level of the year 2000. Owing to the extremely low mortgage interest costs, many households have decided to fulfill their desire to live in their own four walls. The demand resulting from this has simultaneously triggered a marked growth in prices amounting to 76% since 2000.

Each future rise in mortgage interest rates will also increase the financing costs of home ownership. The chart below illustrates the effect for a property worth CHF 700,000 with a loan to value ratio of 80%. At the current mortgage interest rate of 1.5%, the annual mortgage interest costs amount to CHF 8,400. If the mortgage interest rate were to go up to 2.5%, the annual costs of a mortgage would already come to CHF 14,000. Rising interest rates would therefore quickly push up the financing costs of home ownership again, which would make new owner-occupied property acquisitions increasingly less attractive financially. This would result in a fall in demand. Following a very long phase of high price momentum, this could become the trigger of falling property prices. The extent and speed of the rise in interest rates would determine the sharpness of the price correction. However, because the share of speculative purchases is not excessive and there is no oversupply of owner-occupied housing in general, we consider price slumps of the sort seen some years ago in countries such as the US, Spain and Ireland to be ruled out.

From a risk perspective, interest rate increases should not pose any threat to homeowners in an initial phase. The current financing requirements of banks call for owner-occupied housing also to be affordable in terms of a long-term imputed interest rate normally expected to lie at 5%. On top of this, the mortgage has to be repaid to 66% within 15 years so that the financial scope for homeowners gradually increases. Furthermore, because unlike previously most private households today take out fix mortgages, higher interest rates are for many existing homeowners only likely to be reflected in higher financing costs in the medium term.

Affordability of owner-occupied housing by interest rate level
Mortgage interest costs depending on the interest rate for a property worth CHF 700,000 with a loan to value ratio of 80%.

High share of fix mortgages
Mortgage requirements by product type and loan to value group

Source: Credit Suisse
Source: Swiss National Bank, Credit Suisse
However, from an economic perspective the effect of higher mortgage interest rates for home-
owners should not be underrated. If mortgage interest rates were to increase from their current 
level by one percentage point, the annual mortgage interest burden of all homeowners would rise 
by CHF 7.3 billion (although due to the high share of fix mortgages only after a considerably 
delay) – money that would then no longer be available for other forms of spending.

Changes to mortgage interest rates not only affect homeowners but also tenants. Owing to the 
coupling with the base mortgage rate, many tenants with existing rental contracts have benefitted 
from falling rents in recent years. If interest rates rise again in the future, the base mortgage 
rate will one day also go up again. As the base mortgage rate is geared toward the average 
value of all outstanding mortgages, a renewed increase would only set in slowly and with consid-
erable delay. This could make life difficult for landlords as the interest costs would rise more 
quickly than the permitted passing on of the costs to rental income.

By contrast, a rise in interest rates would have an immediate impact on the value of investment 
properties. This is explained by the valuation that is normally calculated using the discounted 
cash flow method (DCF method). The capitalization rate is the decisive component in the DCF 
method. The low interest environment of the past few years has caused the capitalization rate to 
fall continuously. However, due to its long-term horizon, the decline has only taken place slowly. 
The average capitalization rate at the end of 2017 came to 3.7%. Nevertheless, its decline has 
been the core factor behind the value increases of investment properties. Future rises in interest 
rates will inevitably lead to an increase of the capitalization rate. This will eliminate interest-
related appreciation gains in the future and there will be a threat of value adjustments. If and 
how sharply the prices of investment properties are corrected in the future will depend on the 
hand on the future path of interest rate increases while on the other hand the performance 
of the economy will also play a role. If interest rate increases are accompanied by a booming 
economic environment, rental income will also grow, which will in turn exert a positive impact on 
the values of properties.

Owing to the high yield spread between real estate investments and Swiss Federal Bonds, in-
vestments in direct and indirect real estate investments have been extremely attractive in recent 
years. As a result, both institutional and private investors have invested strongly in real estate. As 
interest rates rise, the weight should gradually shift back toward other asset classes. This will 
lead not only to a fall in the demand for existing properties but also to a decline in new construc-
tion activity. The latter is to be welcomed in particular due to the fact that demand has been 
unable to keep pace with the high housing production so that an oversupply of rental apartments 
has developed. A rise in interest rates would eliminate the cause of the oversupply and lay the 
foundations for a reduction of the imbalance, although at the price of lower construction invest-
ments. This would remove an important driver of economic growth.

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Development of capitalization rates

Left-hand scale: interest rates and discount rate in %; right-hand scale: spread between 
discount rate and swap in basis points

Real estate investments – Swiss Federal Bonds yield 
spread

Interest rates in %, yield spread in basis points

Source: annual reports of real estate funds, Datastream, Credit Suisse

Source: Datastream, Credit Suisse
Real Estate I Monitor

Rental apartments

The number of building permits for rental apartments increased by around 1,500 units on the previous year in 2017. However, the development of planning applications does not point toward an imminent end to the construction boom driven by the low interest rates. The limited absorption potential and vacancy rises are limiting project activities in rural areas, while rental apartment construction in the major centers is being impeded by the lack of suitable properties and rigid construction laws. This is leading to a shift to the urban area municipalities in which the number of approved residential units has increased by around 35% since 2015.

Price growth of residential property

The regime change to falling residential property prices following 14 years of increasing prices was just a brief intermezzo. Price growth on the owner-occupied housing market is now significantly up again. The robust economic upturn is generating new demand on the owner-occupied housing market, especially since mortgage interest costs are still very low despite a slight upward trend. However, we do not expect a return to an overheated owner-occupied housing market as the momentum is being too strongly neutralized by the high price level and regulatory braking mechanisms.

Office property market

The volume of office space advertised online remains above the threshold of two million square meters and has therefore only sustained a marginal decline over the past year (−2.4%). While on the outskirts of the major office property markets the consequences of the excessive planning activity are manifesting themselves more and more clearly in the form of a growth in advertised office space, a slight easing of the supply situation can be observed outside the office markets of the major centers. We expect a further decline in advertised office space in the short term as demand is set to pick up again and the currently increased planning activity is only being implemented after a delay.

Construction activity shifting from urban centers to urban areas

Building permits in number of residential units, 12-month totals, total (rhs) and by type of municipality

Residential property prices up again

Annual growth rates by segment

Hesitant decline in advertised office space

Advertised office space*: quarterly totals (existing and new constructions) in m²

Source: Swiss Federal Statistical Office, Credit Suisse; *office space advertised online

Source: Wüest Partner

Source: Meta-Sys AG, Credit Suisse

Source: Credit Suisse
Monetary policy

Retail banks' margins depressed

The low interest rate environment has depressed domestic banks' margins on interest operations, and in particular on their deposit business. The situation is likely to remain challenging as long as the Swiss National Bank (SNB) keeps its policy rate negative.

Domestically oriented banks – a group that includes cantonal banks, regional and saving banks as well as the Raiffeisen Group – are heavily dependent on revenues from interest operations, i.e. clients' deposits and lending activities. The latter account for around 70% of their income. Since 2008, the margin on interest operations has continuously narrowed, and domestically oriented banks have only been able to maintain revenues from interest operations due to the solid expansion of mortgages.

The main driver of the margin erosion has been the liability margin, i.e. the margin on banks' deposit business. Between 2004 and 2008, banks only partially passed on higher interest rates to customers (e.g. on saving accounts), which expanded their liability margin. However, when the SNB slashed its policy rate from 2.75% to almost 0% in late 2008 and then lowered it further into negative territory in 2015, banks had limited leeway to lower the interest rate on saving accounts and were cautious in passing on the negative rate to clients. As a result, their liability margin dropped. By contrast, the development of the asset margin, i.e. the margin on banks' lending business, was affected much less adversely. While banks reduced their asset margin in 2008 after interbank rates dropped, the decline was far less pronounced than the reduction of the liability margin. Moreover, the introduction of the negative policy rate in January 2015 actually led to a widening of the asset margin although the most recent data points to a renewed narrowing.

In the short-term, the outlook for domestic banks with regard to their interest income remains challenging. As long as the SNB keeps its policy rate in negative territory – a situation we expect to continue for around another two years – there is little scope for the liability margin to widen. Moreover, there are few reasons to believe that the recent narrowing of the asset margin will revert in the short-term. In the longer term, higher interest rates and a larger spread between short-term and long-term interest rates, i.e. a steeper yield curve, should help to restore the margin on interest operations. However, our estimates suggest that both a higher interest rate level and a steeper yield curve would only improve the margin moderately. Moreover, as the real estate cycle is likely to have peaked, credit growth is set to be considerably slower than it has been in the recent past so that the expansion of credit volumes is unlikely to offset the margin pressure.

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Banks' margins on interest operations have declined

Domestic banks' net interest income as % of total assets

<table>
<thead>
<tr>
<th>Year</th>
<th>Liability margin</th>
<th>Asset margin</th>
<th>Total margin</th>
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<tr>
<td>2002</td>
<td>1.60</td>
<td>1.00</td>
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<tr>
<td>2004</td>
<td>1.50</td>
<td>0.90</td>
<td>0.60</td>
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<td>2006</td>
<td>1.40</td>
<td>0.80</td>
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<tr>
<td>2008</td>
<td>1.30</td>
<td>0.70</td>
<td>0.60</td>
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<tr>
<td>2010</td>
<td>1.20</td>
<td>0.60</td>
<td>0.60</td>
</tr>
<tr>
<td>2012</td>
<td>1.10</td>
<td>0.50</td>
<td>0.60</td>
</tr>
<tr>
<td>2014</td>
<td>1.00</td>
<td>0.40</td>
<td>0.60</td>
</tr>
<tr>
<td>2016</td>
<td>0.90</td>
<td>0.30</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Liability margin has dropped the most

Estimates of gross liability and asset margins, in percentage points

Source: Swiss National Bank, Credit Suisse
Monetary policy I Monitor

Mortgage loans

Total domestic mortgage loans reached CHF 974 bn (147% of GDP) at the end of December 2017. Households owe approximately 75% of these loans. After rising strongly between 2010 and 2012, the growth of mortgages to households has since slowed down continuously, not least due to tighter regulatory constraints. Nevertheless, the growth rate remains higher than nominal GDP growth and is thus likely to remain on the “radar screen” of the SNB. Moreover, the growth of mortgages to corporates has re-accelerated, with mortgage demand particularly strong in the services sector.

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Leverage of non-financial corporations

Total loans to non-financial corporations continue to rise (mainly mortgages), leading to a gradual increase in the debt-to-GDP ratio. Bank credits to non-financial corporates climbed to 42.8% of GDP in December 2017. Similarly, deposits of non-financial corporations with domestic banks reached 31.7% of GDP, a comparatively high level. The large cash positions of corporates are somewhat surprising to us in a context of negative interest rates. They may also explain why the demand for investment loans (excluding mortgages) remains subdued, despite higher investment spending.

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Negative deposit rate

Only banks’ sight deposits at the SNB above the exemption threshold are subject to the negative deposit rate of –0.75%. The SNB has set this exemption threshold at 20 times the minimum required reserves of November 2014. The SNB rarely communicates on this topic, but according to our estimates approximately CHF 280 bn were subject to the negative rate at the end of Q3 2017, corresponding to 50% of total deposits at the SNB (excluding the Confederation, which is not subject to the negative rate). As the total level of sight deposits has remained broadly stable since then, we assume that these estimates are still largely valid.

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Rising interest rates and pension funds

Bond portfolios initially lose value

While a rise in interest rates initially causes value losses for bonds, depending on the interest trend and duration of the portfolio, these are offset by reinvestment effects. In addition, other asset classes can also be affected by the interest rate increase.

According to the Credit Suisse Pension Fund Index, Swiss pension funds achieved a return in 2017 of around 8%, the best result since 2009. Nevertheless, this good performance cannot conceal the fact that the long-standing decline in interest rates has made it increasingly difficult for the pension funds to generate the income necessary for the sustainable financing of their benefits without accepting higher risks. Over three quarters of the 2017 return is attributable to equities, while bonds altogether only contributed 0.5 percentage points. Many funds have adjusted their investment strategy in response to the low interest environment and reduced their bond and liquidity share in favor of investments offering higher yields but also entailing greater risks such as equities, real estate and alternative investments. Combined with the share booms of the last few years, the reallocations have resulted in equities replacing bonds as the most important asset class at the pension funds recorded in the Pension Fund Index (average portfolio share at the end of 2017: 33.8% equities, 30.7% bonds).

What consequences would arise for a typical Swiss pension fund if interest rates were to rise again? In order to illustrate the possible effects, two scenarios are simulated below, although we will confine ourselves to the analysis of the effect on the CHF bond portfolio. Based on the situation at the end of 2017 (t0) when the return amounted to –0.1%, in the baseline scenario the return on ten-year Swiss Federal Bonds rises slightly by 0.2 percentage points over five years and then remains at this level. In the second scenario of a “sharp rise”, the increase amounts to 1.3 percentage points. The pension fund holds the bonds until maturity and continuously reinvests repayment amounts and coupons. A portfolio duration of 7.5 years is assumed, which roughly corresponds to the current duration of the Swiss Bond Index (SBI) AAA – BBB.

In the event of an interest rate turnaround, the market value of the CHF bond portfolio in an initial phase decreases as increasing interest rates cause existing bonds to lose attractiveness compared with new bonds paying higher rates. The sharper the interest rate rise, the greater the initial value losses (see Figure). However, in the long term this negative market value effect is compensated by a positive reinvestment effect. This results from the fact that the investor is now
able to reinvest the coupons and the bonds due for repayment at higher interest rates. The sum of the two effects then provides the total return. How quickly the portfolio value recovers depends among other things on the speed and extent of the interest rate rise. For example, in the baseline scenario with a moderate increase the reinvestment effect would be too weak to offset the initial value loss within 18 years.

As well as the interest trend, the duration of the bond portfolio also exerts an influence on its performance in the event of an interest rate rise. The duration measures the average capital commitment period of the bond investments. The shorter it is, the smaller the initial value loss and the sooner it is possible to reinvest in bonds paying higher interest so that the reinvestment effect sets in earlier. If we assume a duration of five years, which roughly corresponds to the duration of the SBI AAA – BBB in 2009, i.e. at the beginning of the negative interest spiral, the portfolio value in the “sharp rise” scenario recovers five years earlier than with a duration of 7.5 years (see second illustration on the previous page).

In a second step we include the liabilities side of the balance sheet in the simulations and illustrate how rising interest rates can be expected to exert an impact on the actuarial coverage ratio – i.e. the ratio between the retirement assets (investments) and the pension capital (pension commitments) of a typical pension fund. For the purpose of simplification we assume that CHF bonds constantly account for 24% of the investment allocation, the returns on the other investments remain unchanged over time and the pension capital grows by 2.6% each year. A (fixed) actuarial interest rate of 2% is assumed. Like the value of the bond portfolio, the actuarial coverage ratio also initially falls when interest rates rise, although the effect remains contained in all scenarios (see Figure).

The effect of an interest rate rise on the overall performance of the pension fund portfolios naturally depends not just on the behavior of the bond portion but also on how other asset classes react to the interest rate rise. As mentioned at the beginning, pension funds have in recent years undergone a marked restructuring from bonds to other, more high-risk investments. Real estate investments in particular would be very likely to suffer from an increase in interest rates, although here as well the impact would depend on the extent and speed of such an increase as well as the general economic environment. Equity valuations would also be very likely – at least temporarily – to undergo a downward correction. Altogether an increase in the volatility of the overall portfolio can be expected in an environment of rising interest rates.

Many thanks to Julia Braun from the Strategy Consulting for Institutional Investors division at Credit Suisse for her support in drawing up the portfolio simulations.
Investments

Domestic securities left behind by sharp rise in interest rates

In a scenario of global growth leading to a marked rise in interest rates in Switzerland, equities – above all foreign ones – would gain strongly while Swiss bonds in particular would lose value.

The interest rates in Switzerland are strongly influenced by the interest rate trend and economic performance abroad. A rise in interest rates only affecting Switzerland is therefore a very unlikely scenario. In order nevertheless to illustrate how the securities in a typical Swiss portfolio would develop in the event of a sharp rise in interest rates, let us place ourselves in a world of strong economic growth over the next five years causing central banks across the globe to tighten their monetary policy. In such an environment the Swiss National Bank would gradually hike its base rate by around two percentage points, significantly more than in our baseline scenario.

Despite the increased interest rates, the franc would devalue sharply in a scenario of strong growth owing to the decreasing need for a “safe haven” (see Figure). The highest returns would be generated by foreign and more cyclical equities, which according to our estimates would be two percentage points higher per year in a strong growth environment than in the baseline scenario. For Swiss equities this difference would only amount to one percentage point. A tarnished picture emerges for bond yields from such a rise in interest rates. Only Eurozone government bonds would generate a higher return in the scenario with a marked rise in interest rates than in the baseline scenario, as the higher coupons would more than compensate the price losses. However, Swiss Confederation bonds would be particularly negatively affected. Swiss real estate funds would perform similarly to equities in the scenario of rising interest rates. However, real estate direct investments would only gain little value compared with the baseline scenario despite the higher economic growth. Foreign equities thus appear particularly attractive in an environment of higher growth and higher interest rates, not least due to the expected depreciation of the franc.

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Eurozone boom needed for sharp rise in interest rates in Switzerland

Foreign equities would be most attractive for Swiss investors

Equities would benefit most from a growth environment

Expected average annual return from 2018 to 2022 in local currency according to scenario in %

Source: Credit Suisse
Sectors I Monitor

Chemical and pharmaceutical industry

The turn of the year was shaped by dynamic export performance in the chemical industry (Q4: +11% YoY) and comparatively weaker growth of pharmaceutical exports (+3%). Altogether, the business situation of the chemical and pharmaceutical industry measured by the KOF Swiss Economic Institute has deteriorated again somewhat. However, it remains satisfactory to good. This development is set to continue in the further course of 2018: The more cyclical chemical industry is likely to continue to grow relatively strongly in view of the robust global economic momentum. Conversely, the sales performance in the pharmaceutical sector should remain below average on a long-term comparison, among other things because important patents are currently expiring.

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Engineering, electrical and metal industry (MEM)

Thanks to the robust global economic growth and weaker franc, the MEM industry was particularly dynamic at the turn of the year. Its year-on-year exports altogether increased by 10.5% from November 2017 until January 2018. The metal segment recorded the strongest export growth at 21.1%, which partly also reflects the sharp rise in global market prices for industrial metals in 2017. The upturn has now also reached the domestically oriented part of the sector: Since autumn 2017, a majority of metal companies have been assessing their business situation as satisfactory to good. The expectations of companies for the coming quarters are largely positive in all MEM segments.

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Watch industry

The recovery of watch exports continued in the past few months (Nov. 2017 to Jan. 2018: +6.4% YoY) and the upward trend even accelerated compared with the preceding months. Momentum came especially from the Asian main sales markets (China, Hong Kong, Japan), while exports to the US once again fell. A further drawback is that the growth is largely price-driven, with a smaller number of watches exported than in the previous year, particularly in the lower price segment. However, the outlook for the coming quarters is altogether positive. According to surveys, orders have risen in the last few months, which should lead to an increase in production.

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Retail trade

The Swiss retail trade was last year one of the last sectors to overcome the franc shock of 2015. As well as the appreciation of the euro, the noticeable improved sentiment among consumers has contributed to bringing the decline in retail sales to a halt. We expect the improved currency conditions and the positive consumer sentiment to persist and to enable the sector to achieve a slight increase in sales in 2018 (forecast: +0.3% YoY). However, the Swiss non-food segment is set in the current year to lose further market shares to the dynamically growing online providers abroad.

Hotel industry

The upturn in Swiss tourism is continuing. Although the prices of accommodation have so far not risen significantly, the higher guest frequency from Switzerland and abroad is being positively reflected in the sales figures of many hotels. Particularly in the Alps, where winter tourism remains the main income source, the stronger euro and ideal snow conditions are generating good sentiment. However, the accommodation establishments and mountain railways will need another two to three strong winter seasons to achieve a sustained recovery of winter sports resorts.

Information technology (IT)

The course of business in the IT sector has improved further in the last few months. The Swico ICT Index that summarizes the current quarter expectations of Swiss IT companies regarding the development of sales, order intake and margins reached its highest level since 2011 in the first quarter of 2018. The prevailing trend toward digitalization should also generate solid demand for IT services in 2018. The improved Swiss economic situation is likewise boosting the IT sector: In view of the recovery in important customer segments (e.g. industry), customers should this year have higher budgets available for investments in their IT infrastructure.

Source:
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- kof.economics@credit-suisse.com
- Swico, Credit Suisse
Credit Suisse Leading Indicators

Purchasing Managers’ Index (PMI)

Purchasing managers stand at the beginning of the production process. The PMI uses this forward-looking feature to forecast the level of economic activity. The index is based on a monthly survey conducted by procure.ch, the industry body for purchasing and supply management. Purchasing managers respond to eight questions on output, backlog of orders, purchasing volumes, purchase price, delivery times, stocks of purchases, stocks of finished goods, and employment. They indicate whether activity levels are higher, the same, or lower than in the preceding month. The percentage share of responses stating "higher" and "no change" are used to calculate the sub-indices, though only half of the "no change" share of responses is included. The PMI lies between 0 and 100, with a figure of more than 50 indicating an expansion of activity compared with the previous month.

Credit Suisse Export Barometer

The Credit Suisse Export Barometer takes as its basis the dependence of Swiss exports on foreign export markets. In constructing the export barometer, we have drawn together important leading industry indicators in Switzerland’s 28 most important export markets. The values of these leading indicators are weighted on the basis of the share of exports that goes to each country. The export barometer consolidates this information to produce a single indicator. Since the values in question are standardized, the export barometer is calibrated in standard deviations. The zero line corresponds to the growth threshold. The long-term average growth of Swiss exports of approximately 5% is at 1.

CS CFA Society Switzerland Index

Financial analysts have their finger on the pulse of the economy. Since 2017, we have been conducting a monthly survey of financial analysts jointly with CFA Society Switzerland under the heading Financial Market Test Switzerland1. Analysts are questioned not only about their assessment of the current and future economic situation as well as the rate of inflation but also about financial market issues such as equity market performance and interest rate forecasts. The CS CFA Society Switzerland Index represents the balance of expectations regarding the development of Swiss economic activity over the coming six months.

1 Published as the Credit Suisse ZEW Index from 2006 until 2016
Swiss Construction Index

The Swiss Construction Index is published once a quarter jointly by Credit Suisse and the Swiss Contractors’ Association (SCA). It serves as a leading indicator for the state of Switzerland's construction sector by forecasting the volume of work in the core construction business in the coming quarter. The indicator is calculated by Credit Suisse and is based mainly on a quarterly survey conducted by the SCA among its members. Additional data is provided by the Swiss Federal Statistical Office and Baublatt. The Construction Index was launched in the first quarter of 1996.

PMI Services

Procure.ch, the professional association for purchasing and supply management and Credit Suisse launched a PMI for the services sector in 2014. The Services PMI is structured in exactly the same way as its industry counterpart. Values over 50.0 points mean expansion. It is based on a survey of purchasing managers from Swiss service providers. There are six subcomponents: type of business, new orders, order book, purchasing prices, sales prices and number of employees.

Macro Momentum Indicator

The Credit Suisse Macro Momentum Indicator (MMI) condenses the current performance of key Swiss economic data to a single figure. Data from economic surveys, consumption, the labor market, lending and the export economy are used to calculate a standardized momentum that is then weighted with the applicable correlation to GDP development. Values above (below) zero point toward an acceleration (slowdown) of the Swiss economy in the last three months compared with the past six months.
## Forecasts and Indicators

### Forecasts for the Swiss Economy

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<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
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<td>GDP (YoY, in %)</td>
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<td>2.4</td>
<td>2.2</td>
<td>1.9</td>
<td>1.8</td>
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<td>Construction investment</td>
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<td>Investment in plant and equipment</td>
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<td>3.6</td>
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<tr>
<td>Exports (goods and services)</td>
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<td>Imports (goods and services)</td>
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### Forecasts for the World Economy

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<tr>
<td></td>
<td>GDP</td>
<td>In USD billion</td>
<td>In million</td>
<td>Share of exports</td>
<td>Share of imports</td>
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<td>World</td>
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<td>2.6</td>
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<td>US</td>
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<td>France</td>
<td>2.2</td>
<td>1.1</td>
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<td>1.9</td>
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<td>6.1</td>
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<td>UK</td>
<td>1.8</td>
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<td>5.1</td>
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<td>Japan</td>
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<td>China</td>
<td>6.5</td>
<td>2.5</td>
<td>1,363</td>
<td>5.2</td>
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### Interest Rates and Monetary Policy Data

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<tr>
<td>3-month Libor (in %)</td>
<td>-0.74</td>
<td>-0.8 to -0.6</td>
<td>-0.6 to -0.4</td>
<td>548.4</td>
<td>557.7</td>
<td>542.1</td>
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<td>SNB target range (in %)</td>
<td>-1.25 to 0.25</td>
<td>-1.0 to 0.0</td>
<td>-1.0 to 0.0</td>
<td>7.6</td>
<td>7.3</td>
<td>6.1</td>
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<td>10-year government bond yields (in %)</td>
<td>0.10</td>
<td>0.1 to 0.3</td>
<td>0.3 to 0.5</td>
<td>4.3</td>
<td>4.0</td>
<td>3.8</td>
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Source: Federal Statistics Office, State Secretariat for Economic Affairs SECO, Credit Suisse
Risk warning

Every investment involves risk, especially with regard to fluctuations in value and return. If an investment is denominated in a currency other than your base currency, changes in the rate of exchange may have an adverse effect on value, price or income.

For a discussion of the risks of investing in the securities mentioned in this report, please refer to the following Internet link: https://research.credit-suisse.com/riskdisclosure

This report may include information on investments that involve special risks. You should seek the advice of your independent financial advisor prior to taking any investment decisions based on this report or for any necessary explanation of its contents. Further information is also available in the information brochure “Special Risks in Securities Trading” available from the Swiss Bankers Association.

Past performance is not an indicator of future performance. Performance can be affected by commissions, fees or other charges as well as exchange rate fluctuations.

Financial market risks

Historical returns and financial market scenarios are no guarantee of future performance. The price and value of investments mentioned and any income that might accrue could fall or rise or fluctuate. Past performance is not a guide to future performance. If an investment is denominated in a currency other than your base currency, changes in the rate of exchange may have an adverse effect on value, price or income. You should consult with such advisor(s) as you consider necessary to assist you in making these determinations.

Investments may have no public market or only a restricted secondary market. Where a secondary market exists, it is not possible to predict the price at which investments will trade in the market or whether such market will be liquid or illiquid.

Emerging markets

Where this report relates to emerging markets, you should be aware that there are uncertainties and risks associated with investments and transactions in various types of investments of, or related or linked to, issuers and obligors incorporated, based or principally engaged in business in emerging markets countries. Investments related to emerging markets countries may be considered speculative, and their prices will be much more volatile than those in the more developed countries of the world. Investments in emerging markets investments should be made only by experienced investors or professional investors who have independent knowledge of the relevant markets, are able to consider and weigh the various risks presented by such investments, and have the financial resources necessary to bear the substantial risk of loss of investment in such investments. It is your responsibility to manage the risks which arise as a result of investing in emerging markets investments and the allocation of assets in your portfolio. You should seek advice from your own advisers with regard to the various risks and factors to be considered when investing in an emerging markets investment.

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Hedge funds are not subject to the numerous investor protection regulations that apply to regulated authorized collective investments and hedge fund managers are largely unregulated. Hedge funds are not limited to any particular investment discipline or trading strategy, and seek to profit in all kinds of markets by using leverage, derivatives, and complex speculative investment strategies that may increase the risk of investment loss.

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