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KOF Bulletin

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KOF Swiss Economic Institute

EDITORIAL

Each autumn, KOF prepares a major economic forecast covering an extended horizon that also includes the year after next. For three weeks, around 20 experts work on separate sectional forecasts, combine them, adjust them to the KOF macro model, recalculate them, draw up graphs and agree on one scenario. The result is an economic report of around 80 pages – appearing in a new generous layout for the first time this autumn – which contains forecasts for sub-sectors of the Swiss economy as well as forecasts for the main economic regions around the world. This Bulletin contains a small selection of adapted texts from KOF's 'forecast book'. The subjects of the selected texts are monetary policy, investments and the labour market. The full forecast report is available on our website.

I hope you'll enjoy this substantial read,
David Iselin

ECONOMY AND RESEARCH

KOF Economic Forecast, Autumn 2018: Swiss Economy Motoring Ahead

The Swiss economy is booming. Gross domestic product (GDP) for this year is set to rise by an impressive 2.9 per cent. International economic activity is providing a positive stimulus, and the domestic economy is boosting business activity as well. Unemployment is also set to fall as a result of the strong economy. KOF expects the rate of growth to slow slightly to 1.7 per cent next year before GDP growth will likely rebound to 2.1 per cent in 2020.

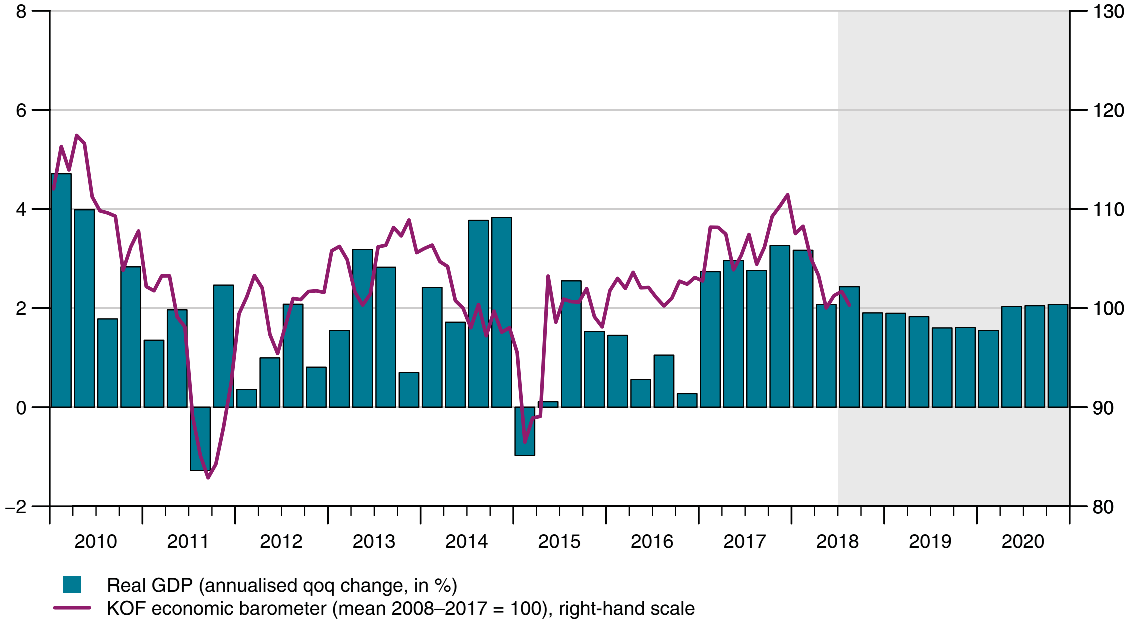
The Swiss economy is surging ahead. The strength of the global economy and the level of domestic business activity are providing a positive stimulus to the Swiss economy. Capacity utilisation in industry is now at its highest level since 2011. This impressive economic performance is broad based, with both the manufacturing industry and the service sectors managing to raise their output. KOF has revised upwards its forecast for GDP in 2018 from 2.3 per cent to 2.9 per cent (see G 1).

The expansion of the global economy is set to accelerate slightly in the second half of this year. The pace of growth will then slow somewhat from 2019 onwards. The US economy in particular will expand significantly in the near future on the back of its fiscal stimulus, although even this market is unlikely to achieve the high growth rates attained last year. Economic growth in China remains robust, while the performance of the euro area has been slightly weaker. Liquidity outflows and currency depreciations will dampen economic activity in many emerging markets in this and subsequent quarters. Overall, however, the outlook for the international economy is likely to gradually start deteriorating slightly. Foreign trade will therefore initially continue to boost the Swiss economy.

Private consumption remains stable

As the largest individual demand component, domestic private consumption has a huge influence on the ultimate level of demand in the national economy as a whole. Consumer spending will remain stable throughout the forecasting horizon. A combination of solid income growth and modest wage increases is supporting private consumption. Because inflation will grow less than nominal wages next year, we will see a slight rise in real wages.

G 1: Real GDP (Excluding Sport Events) and KOF Economic Barometer
GDP from Q3 2018: Estimate/Forecast KOF



Capital spending on machinery and equipment in recent years has been significantly influenced by the replacement and expansion of transport facilities. Because such fleet replacements are now slowly coming to an end, growth in spending on machinery and equipment will gradually decline after 2019. However, this decrease will be partially offset by investment in other areas of the economy, with expansion investment making a growing contribution here.

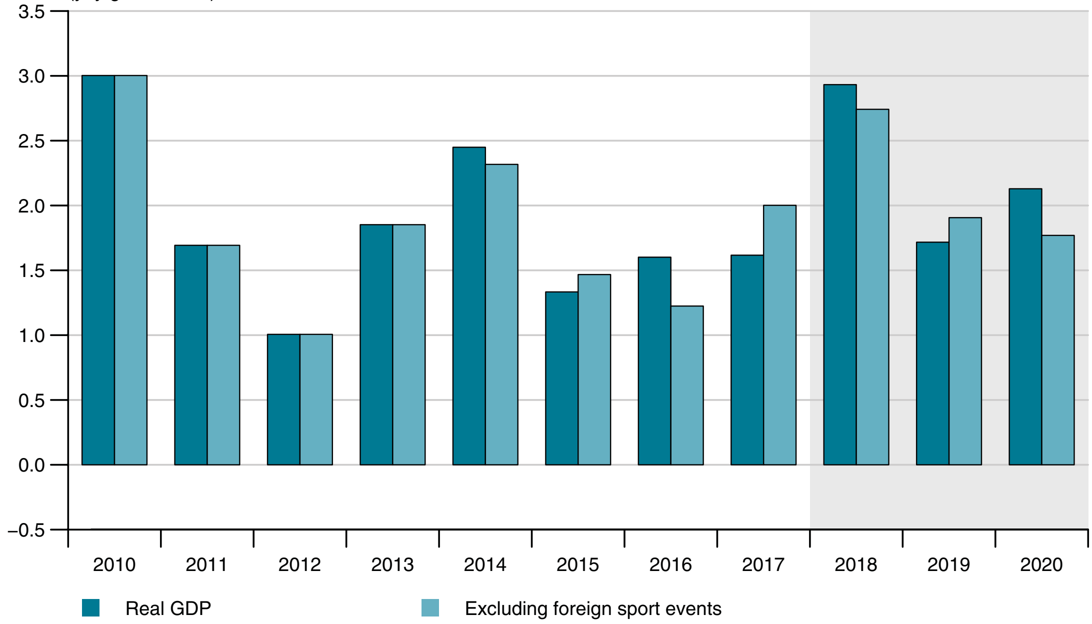
KOF expects Swiss GDP growth to weaken over the course of its forecasting horizon up to the end of 2020. Although GDP growth is predicted to be 1.7 per cent for 2019 and 2.1 per cent for 2020, the lower figure for 2019 stems not from the country's economic performance but from the lower levels of revenue received by the international sporting associations based in Switzerland (see G 2).

Unemployment remains low
The economic upturn has fed through into the labour market. The number of people in employment is rising (2018: up 1.9 per cent in terms of full-time equivalents) while the unemployment is falling. The rate of those officially registered as unemployed this year will be 2.7 per cent, and over the next two years it will remain stable at 2.5 per cent. The unemployment rate according to definition by the International Labour Organization (ILO) will decline over the course of our forecasting horizon from 4.7 per cent this year to 4.4 per cent in the next two years.

Broad-based economic activity
The encouraging levels of business activity across all sectors should continue throughout the forecasting horizon. The sectors hardest hit by the appreciation of the Swiss franc in 2015 – the metal, machinery and tourism industries – have recently bounced back and, assuming that exchange rates remain stable going forward, they can expect to raise their output further. The retail sector has won back market share and, according to KOF's forecast, will continue to expand in future. KOF is more sceptical about the outlook for financial services, while the construction industry, which has managed to increase its production every year since 2007, has now reached a turning point. It also expects the amount of value added in the construction sector to stagnate over the next few years.

SNB unlikely to raise interest rates before ECB
The Swiss franc's weaker exchange rate against the euro over the past year or so has helped boost the profitability of domestic companies that compete with firms abroad. KOF reckons from a technical perspective that this exchange

G 2: Impact of Major International Sport Event
(yoy growth, in%)



rate will remain fairly stable at 1.13 francs to the euro throughout the forecasting horizon. The current strength of the Swiss economy means that an interest-rate hike would be a distinct possibility. In the euro area, however, short-term rates are likely to remain well below zero for at least another year. Any earlier hike in Swiss interest rates would therefore pose the risk of the franc appreciating. Consequently, KOF does not expect the Swiss National Bank (SNB) to raise its interest rates before the European Central Bank (ECB) does so. Long-term rates, which have recently been falling slightly, are likely to be trending higher again by the end of this year. Because this rise will happen only slowly, however, the yield on ten-year government bonds will remain below 1 per cent up to the end of the forecasting horizon.

Forecasting risks

Downside risks to KOF's forecast are likely to come primarily from the international arena. Above all, a slump in world trade as a result of trade wars could hit Switzerland badly. With the possibility of a no-deal Brexit looming and the potential revival of concerns about the stability of the euro, the Swiss franc – a traditional safe-haven currency – could appreciate sharply, thereby choking Swiss exporters' recovery from the 2015 appreciation shock.

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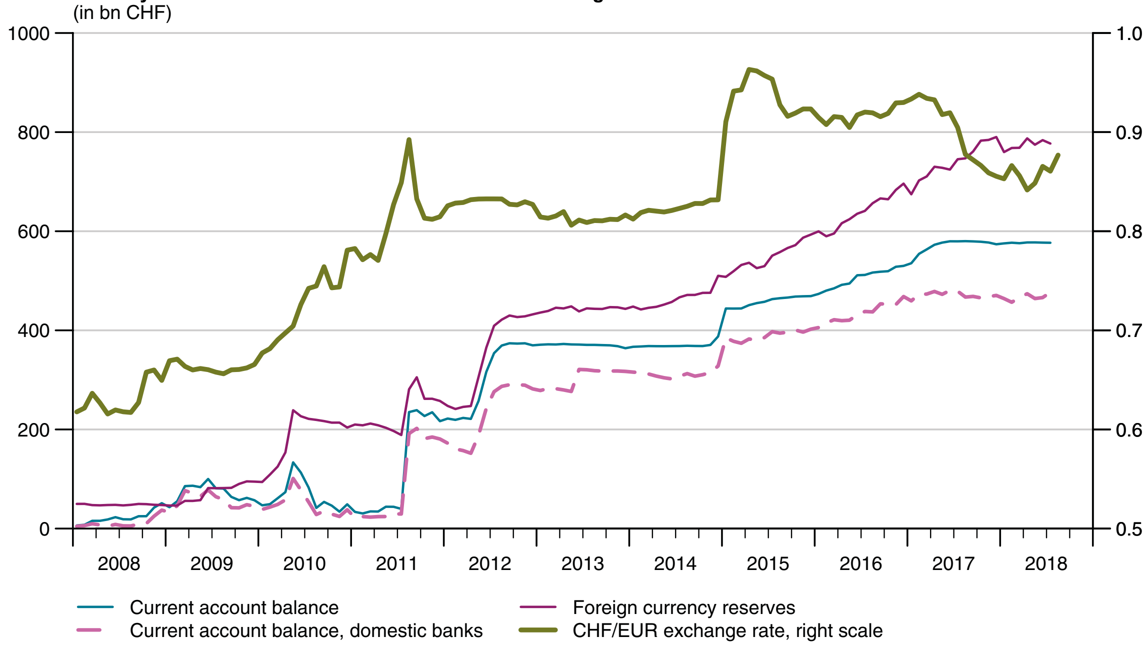
Monetary Policy Is Tightening Up

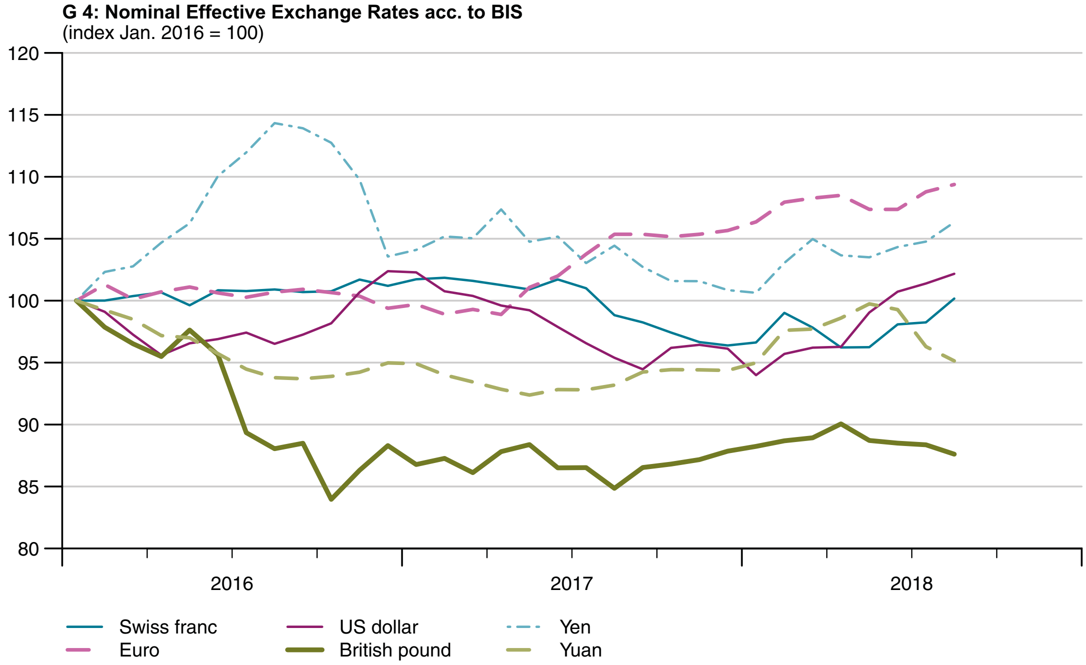
The FED is in the process of pushing interest up further and reducing its balance sheet. In the Eurozone, the ECB has also taken a further step towards abandoning its ultra loose monetary policy. This is the environment in which the Swiss National Bank is currently operating.

At its September meeting, the Swiss National Bank (SNB) resolved to keep its monetary policy, which is based on the two pillars of 'negative interest' and 'readiness to intervene', on the expansive side. Both the –0.75% rate on sight deposits at the National Bank and the Bank's willingness to intervene on the foreign exchange market are to ensure that investments in Swiss francs remain less attractive, thus reducing pressure on the Swiss franc. In its announcement, the SNB still referred to the Swiss franc as high and assessed the foreign exchange market situation as fragile. At present, the SNB believes that the inflationary risk is low. According to its conditional inflation forecast, inflation will rise no further than 1.2% in 2020 even if the key interest rate remains unchanged. According to the Bank, there is still a medium-term risk of a price correction in the real estate market's residential investment property segment.

In the course of the international trade dispute, the political situation in Italy and the looming crisis in the emerging markets, the Swiss franc's value has gone up since June due to its function as a safe haven. However, pursuant to current account data, it does not look as if the SNB has resorted to significant intervention as yet (see G 3). In August, inflation stood at 1.2% and was hence within the price stability range. At 0.6%, core inflation, which excludes the trend in prices of fresh and seasonal products as well as energy and fuel, was still substantially lower since domestic price pressure is still low. KOF expects that, boosted by the latest appreciation of the Swiss franc, inflationary pressure will be moderate and inflation will be well within the price stability range. According to the KOF Consensus Forecast of September 2018, which reflects the joint opinion of around 21 economists, at 1.2%,

G 3: Key SNB Balance Sheet Items and CHF/EUR Exchange Rate
(in bn CHF)





long-term inflation expectations (inflation rate in five years) are marginally lower than in the June survey and thus remain well anchored.

In view of the inflation outlook and the expected ECB policy, the Swiss National Bank will adhere to its negative interest policy for some time to come. Thanks to the favourable economic situation and the associated rise in production capacity utilisation, a first interest rate adjustment by the SNB is not unlikely in the second half of 2019 in parallel with the ECB. However, the downside risks associated with this scenario have gone up. If the situation on the foreign exchange market deteriorates further, the SNB will once again intervene on the market. An escalating international trade war, a flare-up of the European debt crisis and/or turbulence on the international financial markets would all jeopardise the interest rate reversal in Europe.

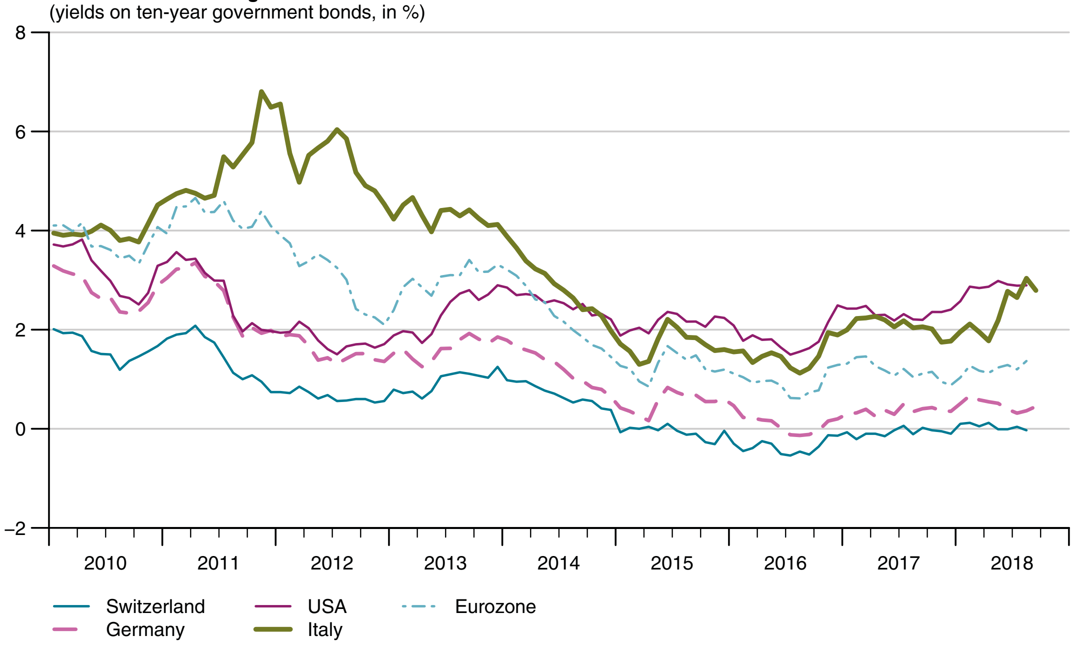
Exchange rates and yields

Due to international tension, political uncertainty in the Eurozone and volatility in a number of emerging markets, the Swiss franc's value has gone up again in recent time as investors are fleeing unsafe assets in favour of the Swiss franc. The value of the Turkish lira and the Argentinian peso, for instance, has dropped dramatically since the beginning of the year. So far, however, the Turkish and Argentinian crises have remained localised. While the CHF rate was still at a three-year high close to the former EUR minimum rate in April, it dropped to around CHF 1.13/EUR in September. All in all, the real external value of the Swiss franc on a trade-weighted basis has risen slightly and is currently close to the value before the suspension of the minimum exchange rate.

Given the nominal exchange rates since the beginning of 2018, the Swiss franc has gained significantly against both the Euro and the British pound, while remaining relatively unchanged against the US dollar and the Japanese yen. In the past year, the value of the US dollar has increased substantially on a trade-weighted basis due to the healthy economic trend and rising interest rates (see G 4).

Within the space of a year, long-term interest rates have gone up considerably in the USA. Rising inflation, the FED's balance sheet reduction and the hike in key interest rates are pushing up the yield. As a consequence, long-term

G 5: International Long-Term Interest Rates
(yields on ten-year government bonds, in %)



interest rates also rose in Europe. The ten-year yields on Federal bonds have moved up significantly into the positive zone, only to drop below zero again on a temporary basis as safe investments became more attractive due to rising insecurity (see G 5). German yields also declined, while the risk premium on Italian bonds rose due to increased political insecurity regarding Italy's public finances. However, the risk premium on Italian government securities has recently gone down again. Against the backdrop of a favourable economic situation and a slow decline in monetary adjustments worldwide over the coming months, KOF expects yields to recover, although the level will remain low in historic comparison.

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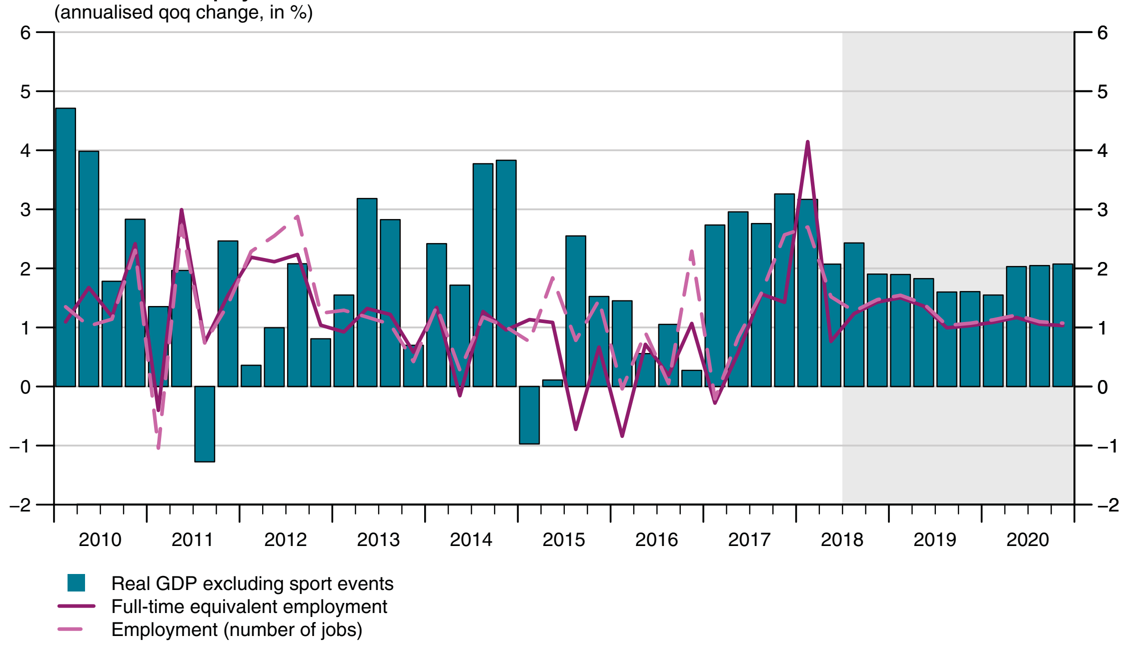
Positive Trend on the Labour Market

The Swiss labour market is following a positive trend. According to the KOF forecast, the unemployment rate will remain low and will even decline slightly. The impact of the new job registration requirement is as yet unclear.

According to the revised employment statistics of the Federal Statistical Office (FSO), the Swiss labour market has delivered a solid first six months, as expected. On a seasonally adjusted basis, Swiss companies have created 47,000 new full-time equivalent (FE) jobs since the end of last year. The service sector was responsible for the majority of the new jobs: hotels and restaurants, freelance, science and technology services as well as healthcare and social welfare expanded considerably. The watch industry also created scores of new positions. Although the employment statistics compiled by the FSO every quarter on the basis of the Swiss Labour Force Survey (SLFS) paint a slightly less euphoric picture of the Swiss labour market in the past half year, its data also indicate a seasonally adjusted rise in employment of just under 33,000 jobholders since the end of last year.

The short-term outlook for the labour market remains positive. According to the majority of the relevant Swiss labour market indicators, companies are still looking to create further jobs. When the KOF Employment Indicator broke through the five-point mark in August, it did so for the first time in over seven years. A further rise from a rather high level was also recorded by the FSO employment indicator, which is also calculated on the basis of company surveys. According to the FSO vacancy indicator, companies' propensity to create new positions has also resulted in a large number of vacancies in the recent past. In its autumn forecast, KOF anticipates a continuation of the previous quarter's above-average growth in FTE employment over the coming four quarters (see G 6). For the full year, KOF expects a 1.9% increase in FTE employment over the previous year. Next year, growth should be around 1.3%. Our forecast for employment growth in 2019 is +1.4%.

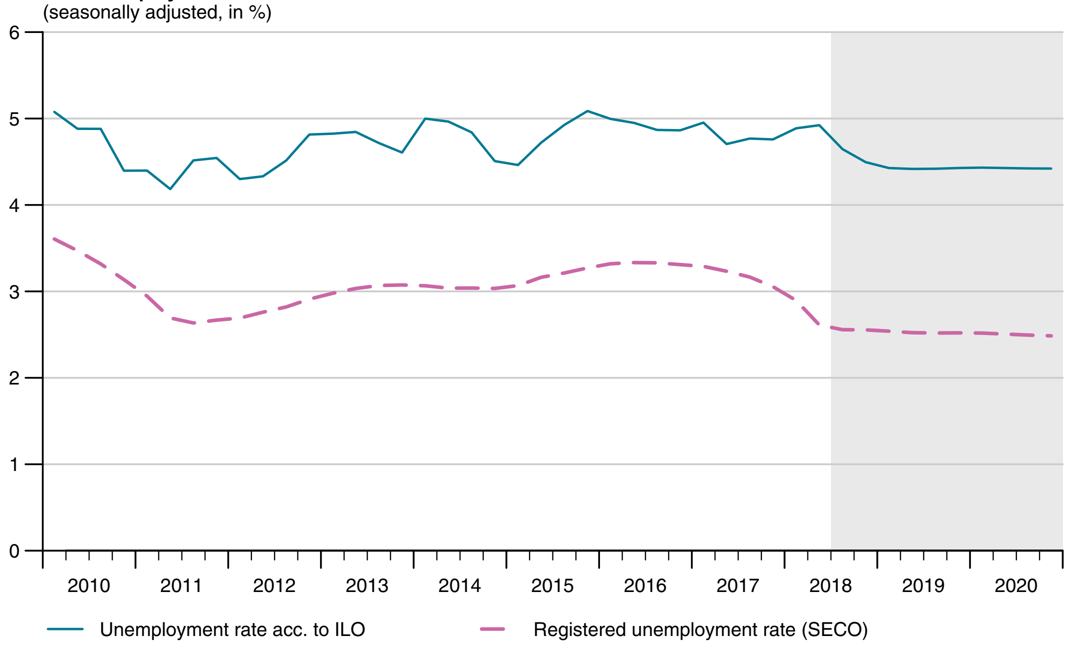
G 6: GDP and Employment Growth
(annualised qoq change, in %)

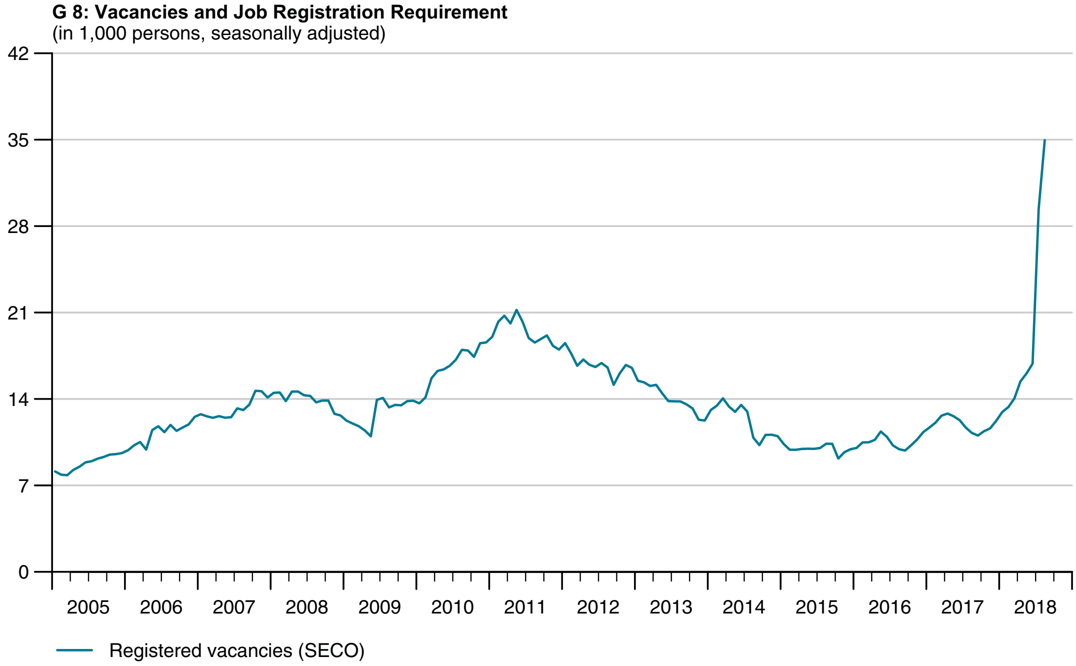


Is unemployment pursuant to ILO also on the decline?
Despite the considerable increase in jobs in the last few months, the Swiss unemployment rate has not really budged – at least according to the jobless statistics of the FSO which are calculated in line with the International Labor Organization (ILO) standards (see G 7). The registered unemployment rate has dropped significantly in the last few months. To a large degree, this is due to a technical conversion of the method used to record the number of registered unemployed. Nevertheless, even if this special effect is excluded, the monthly registered unemployment figures indicate a decline in unemployment. By contrast, the unemployment rate according to the ILO has gone up slightly in the past few months. We believe that this discrepancy will average out over the next few quarters and that the ILO unemployment rate will also decline to some extent. It is however true that the ILO rate has been very persistent in the last few years: Its correlation with the economic trend has been rather low and the rate has remained above 4% even when the economy was doing well. We therefore anticipate no more than a moderate decline in the seasonally adjusted ILO unemployment rate in the coming quarters, projecting a drop from currently 4.9% to approximately 4.5% by late January. For 2019, we expect an average rate of 4.4%. The forecast for registered unemployment in the coming year is relatively low at 2.5%.

Job registration requirement leads to threefold increase in number of registered jobs
The new job registration requirement represents an unknown factor in the calculation of the above unemployment forecasts. Since July 2018, companies advertising jobs in professions with unemployment rates in excess of 8% are required to register their vacancies on the job platform of the Swiss unemployment insurance scheme. On top of this, the jobs must be advertised exclusively on this platform during a waiting period of five days. Companies must consider any jobseekers' files sent by regional employment offices (RAV) and invite suitable candidates. At the moment, the registration requirement applies to 19 professional

G 7: Unemployment Rates with Forecast
(seasonally adjusted, in %)





categories mainly in the construction industry, hotel and catering, personnel services and agriculture. This will change in 2020 when the threshold will be lowered to an unemployment rate of 5% and the number of advertised jobs subject to the registration requirement will go up substantially.

The next few quarters will show whether the job registration requirement will lead to the desired higher exhaustion of the domestic labour supply and lower unemployment in the respective professions. For the moment, the legislator is encouraged by the fact that many companies appear to comply with the new registration requirement. In July and August, the number of vacancies registered with the regional employment offices almost tripled compared to the preceding months (see G 8). This increase is more substantial than expected. In the absence of empirical evidence relating to job registration requirements or experience values from similar measures in other countries, our forecast ignores any possible effects of the job registration requirement on the unemployment rate. Consequently, the requirement represents a certain forecast risk, especially for the 2020 forecast when the job registration requirement will become more extensive.

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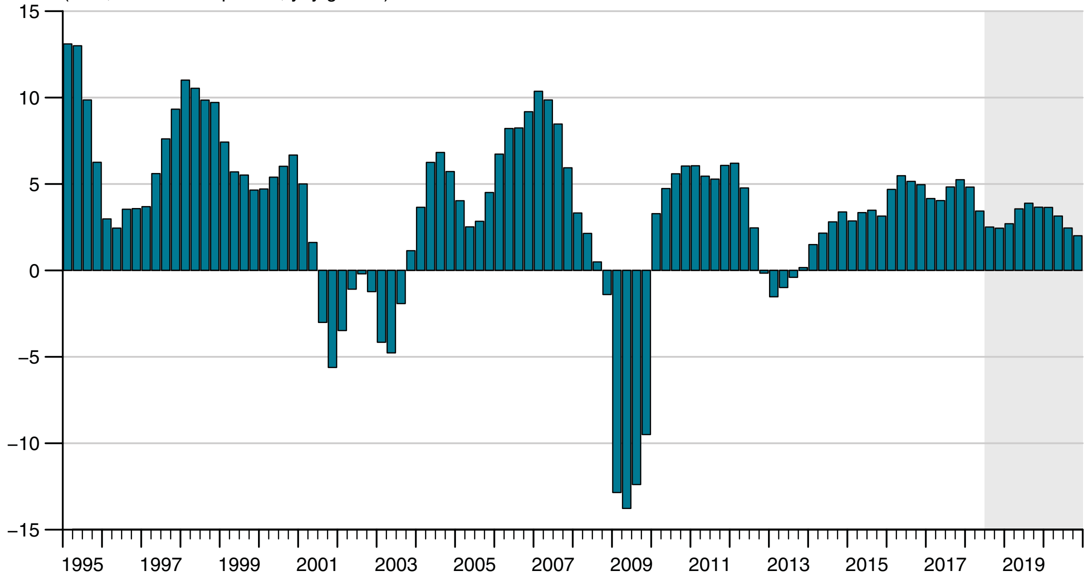
Swiss Companies Maintain Brisk Investment Activities

Swiss investment activities have continued at a high level for a long time now and KOF expects a further rise in the coming year. Nevertheless, there are signs that the end of the investment cycle is imminent.

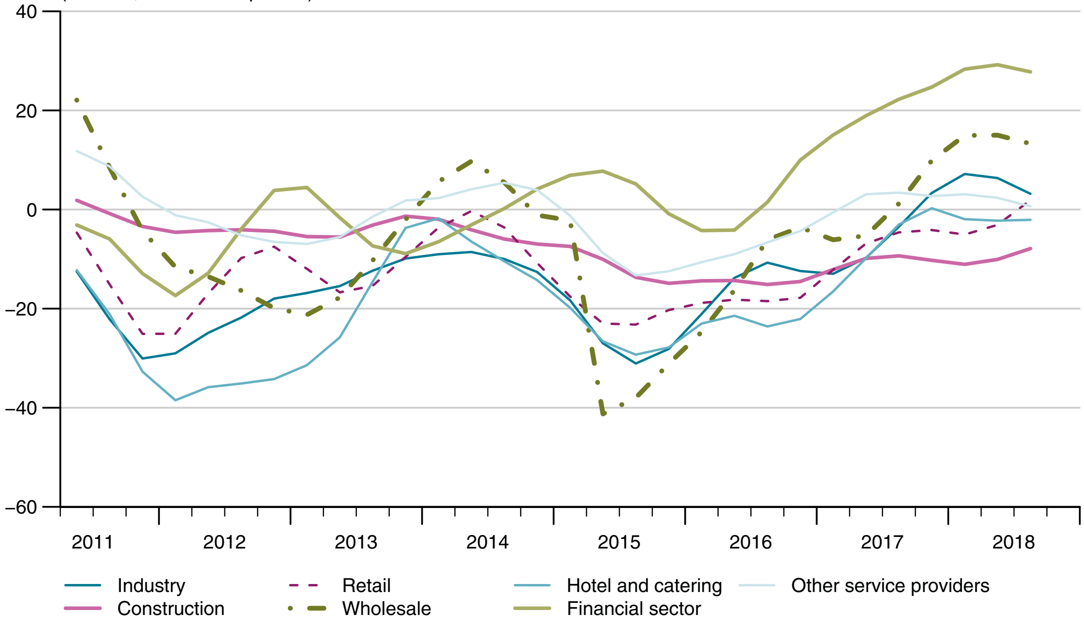
The Swiss economy is experiencing a sustained phase of brisk investment activities. Although rather flat in historic comparison, the current investment cycle, which started in 2014, has been a remarkably long one. It also continued in the first half of 2018 (see G 9). Given its inclusion of the year 2015 when Swiss companies were struggling with the suspension of the CHF/EUR minimum exchange rate, the cycle has been surprisingly robust. There are two main reasons why companies have been able to raise investments in plant and machinery by 2.7% despite declining margins. On the one hand, capital goods accounted for a high share of imports, which lowered the cost of investment projects for companies. On the other, the appreciation of the Swiss franc resulted in a relative increase in the price of labour versus the price of capital, which made rationalisation investments more attractive. As a consequence, the share of companies investing in rationalisation went up substantially in 2015, while expansion investment played a comparatively minor role.

In 2016 and 2017, general investments in plant and machinery picked up speed. According to current estimates by the Federal Statistical Office (FSO), investments in plant and machinery went up by 5.4% in 2016. In 2017, Switzerland recorded a further 4.5% rise in investments. During these two years, a shift occurred from one investment type to another. According to the respondents of the KOF Investment Survey, the importance of rationalisation investments declined continuously throughout 2016 and 2017, while the share of companies engaging in expansion investments

G 9: Investments in Plant and Machinery
(in %, smooth component, yoy growth)



G 10: Trend in Corporate Earnings
(balance, smooth component)



increased successively. The results of the current Investment Survey of June 2018 show that this trend is unbroken in 2018: In the current year, investment activities are dominated by expansion investments while rationalisation investments are playing a minor role.

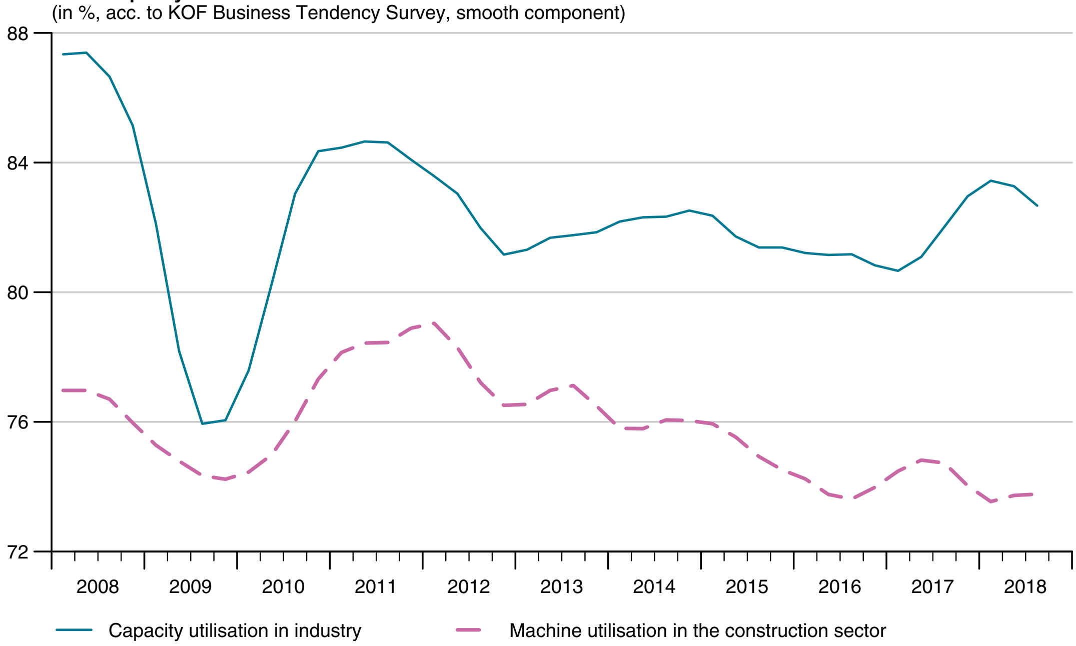
Pursuant to the year-on-year growth rates published by the State Secretariat for Economic Affairs (SECO), real investments in plant and machinery recorded another substantial increase in the first quarter of the year. In the second quarter, investments declined somewhat from this high level. Following several quarters of above-average growth, investments in plant and machinery dropped by approximately 1.2%. Consequently, KOF currently anticipates an approximately 0.5% decline in real investment activities in the third quarter. However, in the fourth quarter of the year, investments in plant and machinery are likely to pick up again. KOF anticipates an increase of approximately 5%. All in all, this year's investments in plant and machinery are expected to exceed the previous year by 3.3%.

In 2019, KOF anticipates another 3.4% increase. Quarter-on-quarter growth in the coming year will be dominated by purchases of new aeroplanes. If these special factors are excluded, investment dynamics will gradually slow down over the coming quarters. The end of the investment cycle is likely to occur in around two years' time.

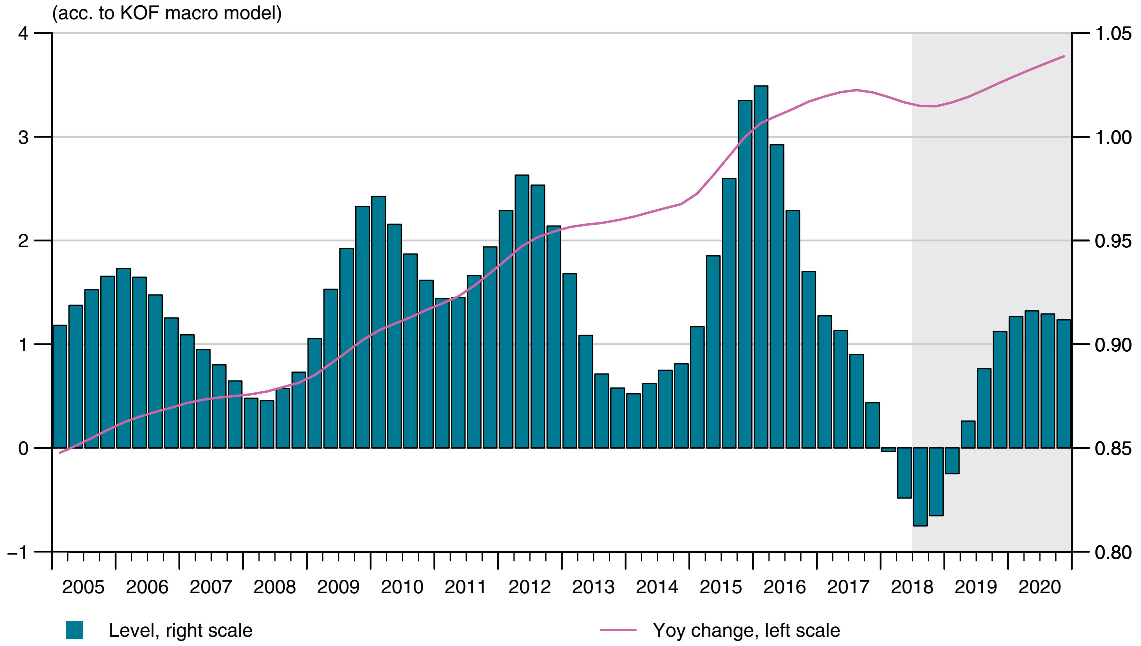
Future investment activities will be dominated by several factors. Over the last two years, virtually all sectors have recovered from the 2015 slump in corporate earnings (see G 10). In 2017, the earnings of Swiss industrial companies improved considerably and for the first time reached the level of 2010 in the first quarter 2018. Retailers and wholesalers as well as the financial sector are all reporting a substantial recovery. Although the earnings of Swiss hotel and catering enterprises also improved in 2017, dynamics flattened substantially at the start of 2018. Construction companies and other service providers were the only sectors that reported stagnation in the last two years. The favourable earnings trend allowed companies to generate higher gross operating surpluses. While gross operating surpluses still declined by 1% in 2015, they increased by 0.8% in 2016 and 0.9% in 2017. For the current year, KOF expects a remarkable 4.2% rise in gross operating surpluses. This increase should give companies the financial leeway to make new investments. In the coming year, KOF anticipates a slightly slower increase in surpluses of 1.9%.

While higher operating surpluses drive investments, the latest trend in capacity utilisation is likely to have a slowdown effect on future investment dynamics (see G 11). Traditionally, capacity utilisation serves as an indicator of future investment activity. This is based on the following underlying mechanism: When average capacity utilisation rises, companies come under increased pressure to make expansion investments in order to meet the surplus demand. In the first quarter 2018, capacity utilisation in Switzerland reached the highest figure in six years. This rise is likely to have triggered investment decisions in certain companies. However, since the value of the capacity utilisation measured in the first quarter is just slightly above the historic average, all in all the observed rise is probably too weak to trigger a sustained investment boom in the industrial sector. On top of this, the KOF Industrial Surveys in April and July 2018 have shown that the degree of capacity utilisation has already gone down slightly, which should reduce any future investment pressure. Since the degree of machine capacity utilisation in the construction sector has tended to slow down over the last year, construction companies are not expected to provide any unusual investment impulses.

G 11: Capacity Utilisation Indicators
(in %, acc. to KOF Business Tendency Survey, smooth component)



G 12: Factor Price Ratio with Forecast
(acc. to KOF macro model)



Similar to the trend in capacity utilisation, the latest development of the factor price ratio should also have a slowdown effect on future investments. For the first time since the end of the 1980s, the factor price of capital has become more expensive compared to the price of labour (see G 12). This means that pressure on companies to reduce personnel expenses via rationalisation investments has declined.

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KOF INDICATORS

KOF Business Situation: Indicator Down Slightly

Having changed very little in the preceding month, the KOF Business Situation Indicator for the Swiss Private Economy dropped slightly in September (see G 13). Although the indicator is no longer moving upward, it remains very close to its previous high level. The Swiss economy is still booming. However, it is currently not receiving any further boosts.

September saw heterogeneous trends in the different sectors (see T 1). The manufacturing industry recorded the first decline in the Business Situation Indicator in three months, and the indicator also dropped slightly month-on-month in the retail trade. By contrast, the business situation improved marginally in the construction-related building and project engineering industries. A somewhat bigger rise in the Business Situation Indicator was reported by the financial and insurance providers. Wholesalers, the hotel and catering companies and the other service providers were last surveyed in July. At the time, the business situation of the wholesalers and the hotel and catering companies continued to improve while the other service providers reported a very slight slowdown.

The major FSO regions also recorded heterogeneous trends in September, although the changes were of a minor nature in the majority of the regions (see G 14). In Central Switzerland, Eastern Switzerland, the Zurich region, Espace Mittelland and North-West Switzerland the business situation remained more or less as favourable as in the preceding month. By contrast, opposing trends were recorded in the Lake Geneva region and Ticino. While the Business Situation Indicator took a step up in the Lake Geneva region, it dropped further below the general average in Ticino.

G 13: KOF Business Situation Indicator
(Balance, seasonally adjusted)

T 1: KOF Business Situation for Switzerland (seasonally adjusted balances)

	Sep 17	Okt 17	Nov 17	Dez 17	Jan 18	Feb 18	Mär 18	Apr 18	Mai 18	Jun 18	Jul 18	Aug 18	Sep 18
Private sector (overall)	24.5	21.4	22.5	23.2	25.3	26.1	25.8	25.7	27.5	26.5	28.2	28.0	27.6
Manufacturing	17.2	15.4	18.6	17.8	18.1	20.3	19.8	18.6	23.9	22.0	23.9	25.5	23.2
Construction	29.8	30.1	29.6	28.4	30.3	30.4	28.0	30.3	29.6	28.7	29.1	27.4	28.0
Project engineering	47.4	48.6	49.5	49.7	45.9	48.8	50.3	48.2	47.1	47.1	45.6	46.8	47.4
Retail trade	2.6	1.4	0.8	4.1	1.7	7.7	5.5	0.1	7.8	7.4	10.1	8.1	7.5
Wholesale trade	-	18.1	-	-	27.5	-	-	27.1	-	-	33.2	-	-
Financial services	36.9	32.1	35.0	40.1	41.7	39.8	41.1	41.4	42.8	39.5	41.1	38.5	39.8
Hotel and catering	-	-2.6	-	-	2.9	-	-	6.2	-	-	9.0	-	-
Other services	-	24.5	-	-	26.4	-	-	27.3	-	-	27.0	-	-

Answers to the question: We assess our business situation as good/satisfactory/bad. The balance is the percentage of 'good' answers minus the percentage of 'bad' answers.

Explanation of graphs:
Graph G 13 presents the KOF business situation across all sectors covered by the survey. The business situation in sectors which are surveyed on a quarterly basis is kept constant during the intervening months.

G 14: KOF Business Situation in the Private Sector

The angle of the arrows reflects the change in the business situation compared to the previous month

Net balances
- 55 to 100
- 30 to under 55
- 16.5 to under 30
- 9 to under 16.5
- 5 to under 9
- -5 to under 5
- -9 to under -5
- -16.5 to under -9
- -30 to under -16.5
- -55 to under -30
- -100 to under -55

Graph G 14 presents the business situation in the main regions according to the Federal Statistics Office (FSO). The regions are coloured according to business situation. The arrows in the regions indicate the change in the business situation compared to the previous month. An upward-pointing arrow, for instance, indicates that the situation has improved over the previous month.

The KOF business situation is based on over 4,500 reports by Swiss companies. Every month, businesses are surveyed in the following sectors: industry, retail trade, construction and project engineering as well as financial and insurance services. Businesses in the hotel and catering sector, wholesalers and the other service providers are surveyed in the first month of every quarter. Among other questions, the businesses are asked to assess their current business situation. They may rate their situation as 'good', 'satisfactory' or 'bad'. The balance of the current business situation is the percentage difference between the 'good' and 'bad' responses.

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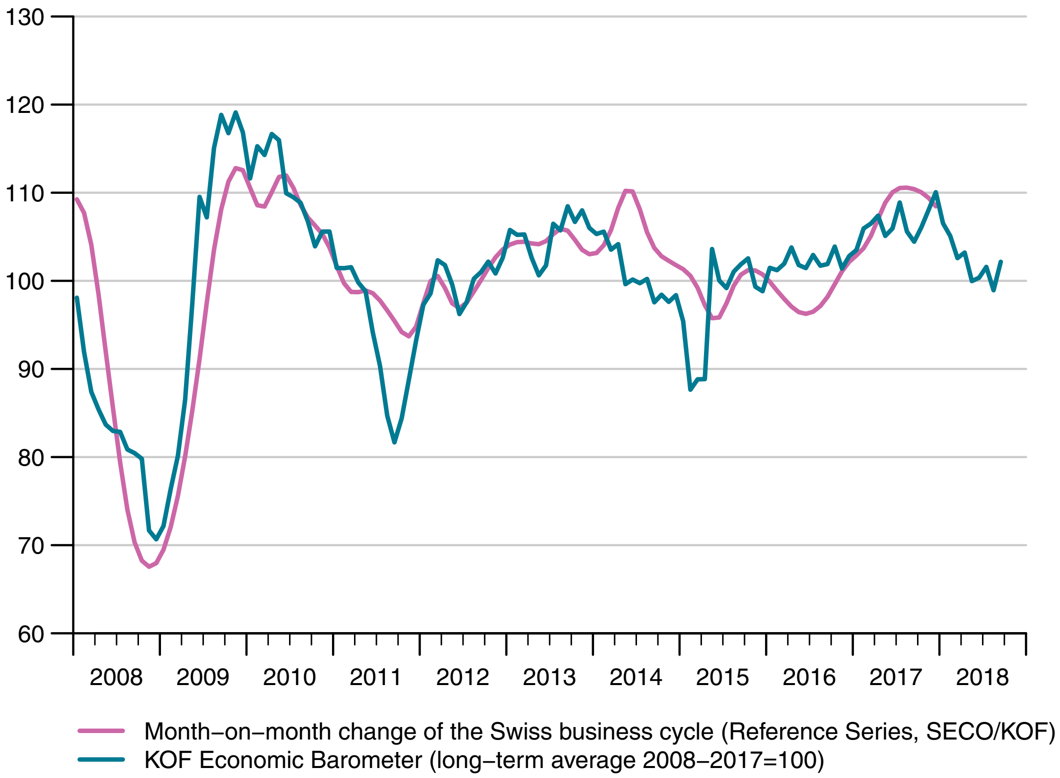
You can find more information about the KOF Business Tendency Surveys on our website: www.kof.ethz.ch →

KOF Economic Barometer Climbing

In September 2018, the KOF Economic Barometer climbed by 3.3 points to a new reading of 102.2 (see G 15). It thus now points to a level that is somewhat above its long-term average. Accordingly, in the near future the Swiss economy should grow slightly above its 10-year average.

G 15: KOF Economic Barometer and Reference Series



In September 2018, the KOF Economic Barometer rose from 98.9 in the previous month (revised down from 100.3)[1] by 3.3 points to a level of 102.2. This may imply that the downward trend, which has been visible since the beginning of 2018, might have come to a halt.

The strongest positive contributions to this result come from manufacturing, followed by the indicators from the exporting sector and finally from the financial sector. The signals from the remaining sectors are slightly positive or neutral.

Within the manufacturing sector, the positive development can be attributed mainly to the metal processing industry, followed by the machine building and the food processing as well as the textile industries and finally the chemical industry. Slightly negative signals come from the wood processing industry and from firms in the 'other industries' classification. The remaining industry branches record practically no change.

[1] Note that, as always in autumn, the recalculation of the Barometer implies that the reference series has changed. Monthly changes of the Barometer must hence be interpreted only within the revised series. For methodological clarifications, see the information at: https://www.kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-economic-barometer.html

The overall improvement of sentiment in the manufacturing sector (including construction) is mainly driven by a more optimistic assessment of employment, followed by the assessments of production and the overall business situation. On the other hand, the assessment of firms' inventories has a slightly negative impact.

KOF Economic Barometer and reference time series: annual update

The annual 2018 revision took place in September. These updates always comprise the following steps: a redefinition of the pool of indicators that enter the selection procedure, an update of the reference time series and a renewed execution of the automated variable selection procedure. The updated pool of indicators now consists of more than 500 economic time series. The updated reference series is the smoothed continuous growth rate of Swiss GDP distributed across the three months of a quarter, based on the official quarterly real GDP statistics, adjusted for the effects of major international sport events, as released by the Swiss State Secretariat for Economic Affairs (SECO) in early September 2018. SECO, in turn takes the release of the previous year's annual GDP data published by the FSO into account. The 2017 vintage of the KOF Barometer (published until August 2018) comprised 273 indicator variables. The current 2018 vintage, which is now replacing the 2017 vintage, consists of 345 indicator variables, selected from a pool of more than 500 candidate variables. Compared to the previous vintage, 104 indicators are new and 32 dropped out of the set of selected indicators. The Barometer is the rescaled weighted average of the selected indicators, where the weights correspond to the loadings of the first principal component.

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For detailed information on the KOF Economic Barometer, visit our website:
www.kof.ethz.ch →

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