



# KOF Bulletin

No. 123, November 2018

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## EDITORIAL

Things are continuing to go smoothly for Swiss companies, according to the most recent KOF Business Tendency Surveys from October. Whilst the situation has not improved further, the KOF Business Situation remains at a very high level. You can read more about this topic in our first article. It is nothing new to point out that the economy is not made up of businesses acting in complete isolation from one another; however, it is worth reporting that businesses in Switzerland that do not engage in much foreign trade can benefit from the foreign R&D operations of their competitors – you can find further details in our second article. Swiss companies appear to be gradually improving their performance not only overall, but also specifically in the tourism sector. As an article from the current KOF Tourism Forecast shows, Swiss tourism has regained competitiveness thanks to falling prices, which is apparent in particular compared to the competitor Austria. The last article presents the overhauled KOF International Forecasts. The KOF has significantly broadened the scope of this publication in order to present international economic developments specifically for a Swiss audience.

The current issue of the KOF Bulletin is also my last as editor. I would like to thank you for your interest and wish you all the best for the future.

David Iselin

# ECONOMY AND RESEARCH

## KOF Business Tendency Surveys from October 2018: Business Situation Hardly Changed



**The KOF business situation is barely any different in October compared to the previous month. This means that the business situation of Swiss companies has not changed significantly since July of this year. Optimism on the part of companies regarding future business trends has fallen back slightly. The Swiss economy is continuing to ride high, although with slightly less of a tail wind.**

### **Business situation according to economic sectors**

The comparably stable development in the Business Situation Indicator for the Swiss private sector masks sharply differing performance trends within the various sectors of the economy. In the manufacturing sector, the Business Situation Indicator has fallen for the second month in a row. The Business Situation Indicator has also fallen back in the hotel and catering and retail trade sectors. The business situation has hardly changed in the project engineering sector. On the other hand, companies from construction as well as from the area of financial and insurance services and other services report an improvement in the business situation.

### **Business situation by region**

In regional terms, the business situation has also developed unevenly. The business situation has improved in particular in Central Switzerland. However, it has also

recovered somewhat in Ticino. The business situation in the Lake Geneva area is practically unchanged compared to October. On the other hand, it has cooled slightly in Eastern Switzerland and Espace Mittelland. The situation worsened slightly more markedly in the Zurich region and in North West Switzerland.

### **Focus on individual sectors**

**The manufacturing sector has been encountering a headwind: the business situation is no longer as good as it was during the summer months, capacity utilisation has fallen slightly and corporate earnings are no longer increasing.**

The business situation in the manufacturing sector has worsened for the second month in a row. Order books only expanded marginally and companies are no longer as satisfied with order volumes as they were in the previous month. Businesses are no longer expanding production, and capacity utilisation has fallen slightly. At the same

**G 1: KOF Business Situation Indicator**

(Balance, seasonally adjusted)



time, capacity utilisation remains above average in historical terms. However, not as many companies have created additional capacity as did during the first half of this year. The international competitive position – in particular on the EU market – has again failed to improve and corporate earnings have stagnated. Companies nevertheless remain optimistic regarding future order levels overall and export business performance. However, very few are planning to raise prices, and business expectations are overall not as optimistic as previously.

**The business situation remains good in the construction-related project engineering sector and the construction sector itself, and the outlook does not suggest that there will be any significant change in the situation.** The positive business situation has only changed marginally in the project engineering sector. Demand for planning services has risen overall once again, although with a consolidating downward trend for new business in the area of residential construction. In addition, the share of renovations and maintenance within construction spending is increasing compared to new builds. Overall, project engineering firms are now expecting the business trend to remain stable into the near future. However, they are increasingly looking to hire additional staff. The business

situation has improved slightly in the construction sector. Whilst order books have thinned out slightly, companies remain largely satisfied with existing levels of orders. Construction activity has expanded a little more in the last few months than it did previously, although this has not had any effect on the level of capacity utilisation, which has remained unchanged. However, corporate earnings grew less than they did during the first half of the year. As regards future development however, companies are now expecting earnings to stabilise, with demand for their services remaining essentially unchanged.

**The retail sector has posted a small fall, with sales stagnant and the business situation even worsening; however, businesses remain confident regarding future sales trends.** The Business Situation Indicator has fallen in the retail sector. This means that the position at the start of the autumn is significantly worse than it was during the summer months. Customer footfall and sales of goods have not posted any further gains. By contrast, traders are increasingly complaining that their inventory levels are too high. However, companies continue to be confident regarding the future development of business. They expect sales prices to remain stable and to increase sales over the next three months.

## G 2: KOF Business Situation in the Private Sector



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

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	

**The upward trend in the wholesale sector has fizzled out a little, although further moderate increases in demand are expected over the coming period.** The business situation has improved slightly more in the wholesale sector. However demand has fallen, albeit not as strongly as in previous quarters. Corporate earnings have stagnated in the recent period, which is considered to be due in particular to purchase prices rising faster than selling prices. This price dynamic is projected to continue into the coming months. Wholesalers are positive overall regarding the trend in demand, which they expect to be less buoyant, but nonetheless to continue along its slightly upward trajectory into the near future.

**The situation in the hotel and catering sector only changed marginally and is overall satisfactory; hotel businesses are expecting a stable development in the near future, whilst caterers are becoming more confident.** The Business Situation Indicator for the hotel and catering sector was not as positive in October as it was in the previous

quarter. Nonetheless, businesses are largely satisfied with their business situation. Demand has increasingly risen over the last three months. Corporate earnings have also improved significantly. Companies are confident regarding the future development of the business situation, although are expecting less robust improvements than previously. Hotels posted a large increase compared to the previous quarter for overnight stays by Swiss residents and foreign visitors. This also resulted in an occupancy rate that was higher than it was during the same period last year. Since booking figures are no longer rising at the moment, companies are expecting the number of overnight stays to remain stable, but not to increase, in the near future. The stabilising trend has consolidated itself within the catering sector. It has been broadly speaking possible to maintain the sales volumes achieved during the previous year. Sales have been generally stable also in terms of volume. Restaurateurs are more confident than they previously were regarding future development, and expect sales of both food and drink to rise.

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

	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sep 18	Oct 18
<b>Private sector (overall)</b>	21.6	22.8	23.6	26.0	26.5	26.6	26.2	28.2	27.0	28.9	28.7	28.4	28.6
<b>Manufacturing</b>	16.6	20.3	19.9	20.9	22.4	22.8	21.1	26.8	24.1	26.6	28.0	25.4	22.7
<b>Construction</b>	29.8	29.5	28.3	30.3	30.3	28.0	30.3	29.7	28.7	29.2	27.5	27.5	29.1
<b>Project engineering</b>	48.8	49.5	49.7	45.9	48.8	50.4	48.2	47.0	47.0	45.4	46.5	45.6	45.2
<b>Retail trade</b>	2.1	0.9	3.9	1.8	7.8	5.4	0.1	7.8	7.3	10.1	8.0	9.4	5.2
<b>Wholesale trade</b>	18.2	-	-	27.7	-	-	26.9	-	-	33.0	-	-	34.5
<b>Financial services</b>	31.7	34.6	39.9	41.6	39.8	41.1	41.5	42.8	39.6	41.3	38.8	40.4	42.8
<b>Hotel and catering</b>	-1.3	-	-	3.3	-	-	4.8	-	-	8.7	-	-	5.9
<b>Other services</b>	24.3	-	-	26.2	-	-	27.3	-	-	27.4	-	-	29.3

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.

**The business situation in the area of finance and insurance services improved, with banks reporting a more positive business trend with domestic customers. Banks are also more optimistic about the prospects for success in the near future within significant areas of business.**

The business situation has improved further for financial and insurance service providers. The situation can be classified as very good here. Demand has picked up further, although operating costs have increased slightly more compared to the previous quarter. Since, by contrast, corporate earnings have increased less widely, the earnings position has not improved as vigorously as previously. Assuming that prices for services remain stable, the KOF forecasts a further rise in demand in the near future. However, companies are at present rather reticent about recruiting additional staff. The business situation for the sub-group of banks has improved in terms of their business with domestic customers. Demand from foreign customers has tailed off. Banks are more optimistic than they were previously regarding positive results from trading-related, commission and fixed-income business in the near future. However, since operating costs are expected to increase more widely, they are forecasting a more gradual improvement in corporate earnings than previously.

**The business situation has improved for other service providers and demand increased across the board; more companies are thus looking to hire staff.** The business situation has improved for companies in the sector of other

service providers. Demand has picked up, even more strongly than in the previous quarter. Since service providers have expanded their staff resources in the last few months, capacity usage remains at a similar level to the same period last year, despite the increase in demand. Nevertheless, corporate earnings have improved slightly. As regards future development, service providers are forecasting a further increase in demand, although expectations are no longer as positive as they were last year. Service providers are increasingly looking to expand staffing levels; however, reports of worker shortages have also fallen slightly.

The results of the current KOF Business Tendency Surveys of July 2018 are based on the replies of over 4,500 private companies active in industry, construction and the main service sectors. The response rate was approximately 59%.

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You can find more information about the KOF Business Tendency Surveys on our website:  
[www.kof.ethz.ch/en/surveys/business-tendency-surveys](http://www.kof.ethz.ch/en/surveys/business-tendency-surveys) →

## National Companies Benefit from the Foreign Business of Competitors

**Is there any benefit for companies if other companies have foreign operations? A new KOF study suggests that ‘domestic companies’ in Switzerland benefit from the R&D operations of other Swiss companies abroad, in relation specifically to both innovation and productivity.**

Technological progress is essential for the international competitiveness of a country. In a new KOF study, Spyros Arvanitis, Luca Mircea, Florian Seliger and Martin Wörter (Arvanitis et al. 2018) carry out a descriptive and econometric analysis of the contribution of foreign R&D operations by Swiss companies to increases in innovation and productivity within Switzerland. The researchers take ‘foreign R&D operations’ to refer to research and development (R&D) activities carried out by foreign subsidiaries, R&D cooperation with foreign companies or research institutions and the placing of R&D contracts with foreign operators. They are able to measure R&D operations both ‘directly’ through information contained in surveys and also ‘indirectly’ based on patent data. R&D operations exert an influence on other companies through so-called knowledge spillovers. These involve a flow of knowledge through various channels to competitor businesses, which take this knowledge on board and exploit it as part of their own efforts at enhancing innovation.

The descriptive assessments of the innovation panel show first and foremost that in particular large companies have foreign R&D operations, since presumably only these companies are able to deploy the necessary resources. In addition, all R&D operations are heavily focused on EU countries. Operations are centred above all on other companies (and not on universities and research institutes), i.e. Swiss companies cooperate with foreign companies or place R&D contracts with foreign companies.

### **Businesses interested above all in cutting costs**

Although the researchers show in their study that the knowledge element of foreign R&D operations can make an important contribution to domestic innovation, the resource aspect (i.e. cutting costs by outsourcing R&D operations) is much more significant for Swiss companies than the knowledge aspect (i.e. close involvement with universities and other knowledge-intensive companies in foreign regions).

Within the economic part of the study the authors investigate, amongst other things, the effect of spillovers on the number of new patents applied for by a company. New patents mark the transformation of the technological know-how required for their development into the knowledge capital of a company. The authors show that the effect is positive and that the spillover effect propagates exclusively from patented inventions of other companies that were created with the involvement of foreign inventors (with which a competing business has carried out international R&D operations).

Interestingly, this effect is not limited to new patents overall, and to new patents developed with foreign inventors, but also operates for patents developed exclusively by Swiss-based inventors. This means that also companies with an exclusively national focus to their R&D efforts (resulting exclusively in patents developed in Switzerland) benefit from the internationalisation of R&D by other companies.

In addition, the authors investigate whether there is any link between a company's knowledge capital (to which its own patents contribute) and its innovation. This correlation is positive, as may be expected. However, this is also attributable to the element of the knowledge capital that is developed with the assistance of foreign inventors through international cooperation, R&D operations and R&D orders (international knowledge capital).

This knowledge is essential for the market success of new and innovative products. This means that initiatives to promote international cooperation between inventors increase not only knowledge capital but also the innovative depth of new products, resulting in higher turnover. The accumulation of knowledge capital is associated with high costs, which can only be covered if new, innovative products are developed and marketed.

#### **Positive productivity effects, under certain circumstances**

In actual fact the authors only identify positive productivity effects for international knowledge capital when new products are developed at the same time. The size of the company is a further condition for positive productivity effects of international knowledge capital, since larger companies can take advantage of international sales channels and more comprehensive marketing options, which have a positive effect on the marketing of innovative products. In addition, high R&D costs can be offset against higher levels of sales by larger companies, which means that products can be offered for sale relatively cheaply.

For most companies, which tend to be smaller on average, the authors identify positive productivity effects also for knowledge capital associated exclusively with inventions by Swiss-based inventors. This results in a kind of 'division of labour' between these smaller companies and the major companies with an international focus. Finally, thanks to the spillover effects mentioned above, all companies

benefit from the international operations of major companies, thus including smaller companies with a more national focus.

#### **International cooperation important**

On an economic policy level, the authors consider above all international cooperation in relation to the development of new technologies to be a key factor in generating knowledge spillovers, from which also smaller companies with a national focus can benefit. International cooperation can involve both classic cooperation between businesses as well as cooperation between personal networks of employees, or cooperation with individuals based abroad who have particular know-how that is not available in Switzerland.

International cooperation also increases technological know-how, enabling companies to understand the technologies of other companies and combine them with their own. However, it must be remembered that smaller companies are exposed to a higher risk in relation to the development and marketing of new technologies as they often lack important resources. This should be taken into account within economic policy in order to enable smaller firms to benefit from spillovers.

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#### **Literature**

Spyros Arvanitis, Luca Mircea, Florian Seliger and Martin Wörter 2018: 'Spillovers' von Wissensaktivitäten im Ausland, Welche Effekte haben ausländische Wissens- und F&E-Aktivitäten Schweizer Unternehmen auf den F&E-Standort Schweiz? KOF Study, No. 119.

[www.kof.ethz.ch](http://www.kof.ethz.ch) →



## Swiss Tourism: A Return to Competitiveness Thanks to Falling Prices

**Following an extended lean period, the Swiss tourism sector has the wind in its sails again. The main reason for this is the fall in relative prices, in particular compared to Austria.**

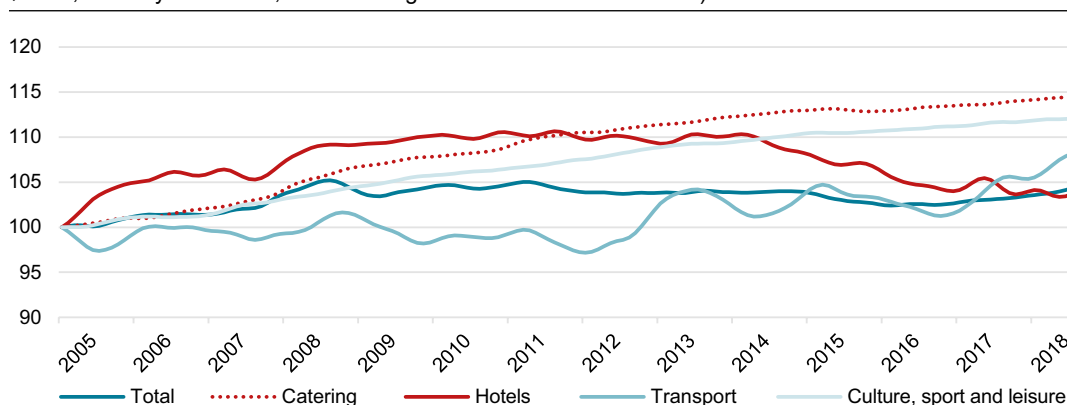
Following a difficult couple of years, the Swiss tourism sector has the wind in its sails again. Foreign demand, measured in terms of the number of overnight stays in hotels, has been growing again since 2017. However, alongside real demand, corporate earnings are particularly important for operators in the tourism sector. Prices are an important ingredient in this mix. Especially during periods of strength for the Swiss franc, many hoteliers slash their prices due to the weak demand, and have thus been able to make up in part for drops in demand. Thanks to this price restraint, it has been possible to make up for some of the loss in price competitiveness compared to foreign operators resulting from the increase in the value of the Swiss franc. However, since the cost structure leaves little room for manoeuvre for many operators, this has led to a fall in corporate earnings. How have prices in the tourism sector performed compared to the economy as a whole, and compared to foreign countries? And what can be said about future price trends?

### Tourism prices relative to the economy as a whole and compared to foreign countries

Over the last few years, consumer prices have trended sideways and have been following a downward trajectory since 2010. In particular imported goods have become cheaper as a result of the stronger franc. Until 2010, prices in the hotel sector grew slightly more strongly than the index as a whole, although have clearly fallen back since 2015 (see graph G 3). Prices in the hotel sector this year are around 5% below the 2010 level. Compared to the hotel sector, prices in other tourism categories such as catering, transport services and culture, sport and leisure services have increased since 2010, and have in fact grown even more strongly than the index as a whole. In contrast to the hotel sector, most demand in these categories is non-tourist.

In order to be able to compare tourism prices in Switzerland with prices abroad, a tourism-specific price index can be obtained from the service categories mentioned above. The weighting of the individual categories in the index

**G 3: Development of Consumer Prices and Tourism-Relevant Service Categories in Switzerland**  
(Index, January 2005=100, smoothed figures Source: Eurostat HICP)





price index is calculated for Switzerland as well as for Germany, France, Italy and Austria. For the sake of simplicity, we use the weighting established for Switzerland also for other countries. As the results in graph G 4 show, tourism prices in neighbouring countries have increased by around 30 to 35% since 2005. The price increase in Switzerland over the same period has been only 10%.

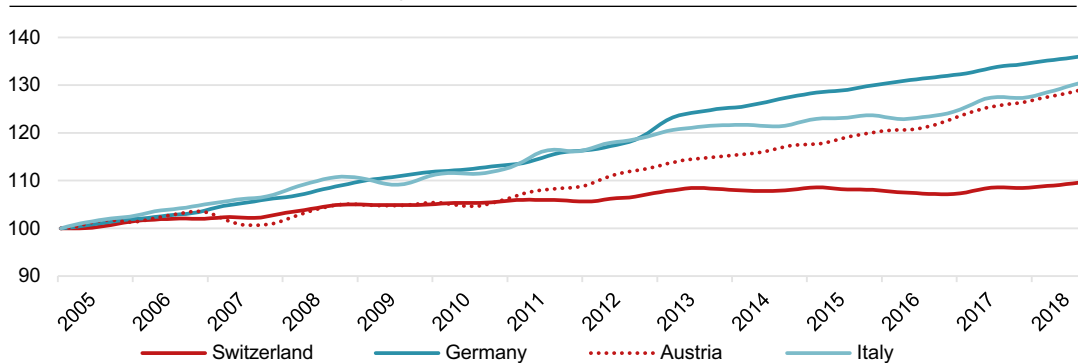
**Price trends as an indicator of international competitiveness**

Price trends are an important indicator of international competitiveness. For this reason, we compare tourism prices in Switzerland with Austria, a country with a comparable tourism sector. Any increase in the value of the Swiss franc compared to the euro has had the effect of making Swiss tourist destinations more expensive at a stroke compared to Austria, and has accordingly increased relative tourism prices between the two countries calculated in euros (graph G 5, red line). However, this price difference has been made up for over the medium to long-term, at least in part, by price restraint in Switzerland. Austrian tourism prices in euros have risen more strongly than

corresponds to the share of spending attributable to Swiss tourism, and is based on the Tourism Satellite Account. The shares of spending may be broken down as follows: 34% for culture, sport and leisure services, 27% for transport services, 23% for hotels and 16% for catering. Tourism-related products such as for example retail trade or healthcare spending are not taken into account. A tourism-specific

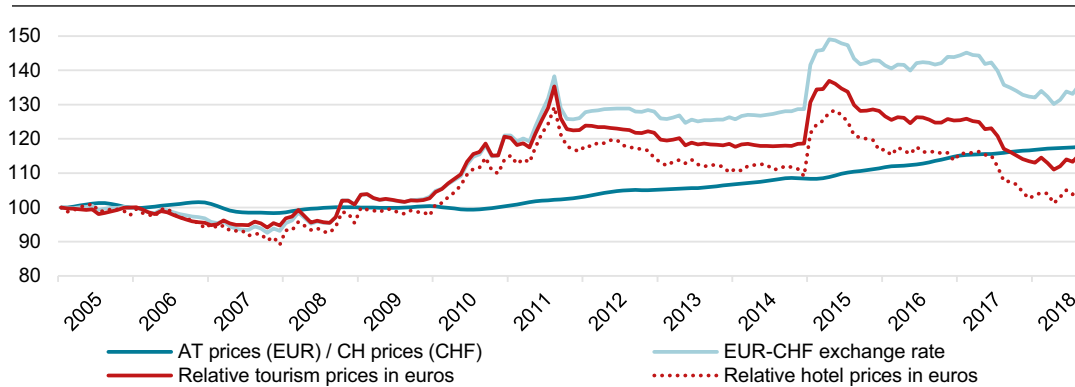
**G 4: Development of Tourist Price Indices in Switzerland and Neighbouring Countries**

(Index, January 2005=100, smoothed figures Source: Eurostat HICP)



**G 5: Development of the Tourism Price Index in Switzerland Compared to Austria**

(Index, January 2005=100 Source: Eurostat HICP)



Swiss prices in francs (blue line), in particular since 2010. This means that the relative price ratio in euros is at present only around 15% higher than it was in 2005. However, if only hotel prices are considered, the relative level from 2005 has almost been reached.

**Outlook**

The Swiss tourist sector has partly made up the competitive price disadvantage resulting from the increase in the value of the Swiss franc through price restraint. Thanks to increasing demand and steady supply on pan-Swiss level, capacity utilisation is currently rising. There are signs once again of price rises, along with the associated improvement in corporate earnings, in particular in the hotel sector. It is also apparent from the KOF surveys that the middle of last year marked a sea change in price expectations. Assuming that the exchange rate between the franc and the euro

remains stable, overall prices in the tourism sector as a whole are projected to rise this year by just under 1%. Increases in the hotel sector will be somewhat more restrained. Following continuing price falls this year, hotel prices are only expected to start rising next year.

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The current KOF Forecasts for Swiss Tourism are available at (in German):  
[www.kof.ethz.ch](http://www.kof.ethz.ch) →

## Publication KOF International Forecasts

**The KOF has revamped and upgraded its quarterly publication KOF International Forecasts. The KOF International Forecasts are made for a Swiss audience and present the outlook for the international economy and Swiss exports in form of graphs, tables and maps.**

Switzerland is a small open economy, the international economic environment is important for the Swiss business cycle. The KOF puts a special emphasis on forecasting the international economy using a variety of quantitative forecasting models and tools. The quarterly publication KOF International Forecasts presents these international forecasts, including data histories, along with various indicators and forecasts related to the Swiss export sectors in the form of graphs, tables and maps. The KOF International Forecasts present the international economy from a Swiss perspective and are made for, amongst others, Swiss export-oriented firms, Swiss financial market institutes, and public or private institutions in Switzerland with a focus on the international economy.

The set of forecasted international series includes world GDP from a Swiss perspective, GDP in different world regions, world trade, OECD and euro area GDP and expenditure components, inflation, short-term and long-term interest rates, output gaps and GDP in Switzerland's main trading partners, foreign currency nominal and real exchange rates, amongst others.

The leading and coincident indicators for the Swiss export sectors include sentiment and confidence indicators for Switzerland and the EU based on business tendency surveys (BTS) conducted by KOF and its European partner institutes as well as BTS based business situation, order backlog and export expectation indices for Swiss export-oriented firms, amongst others.

The forecasts related to Swiss foreign trade include sectoral exports and sectoral terms of trade. In addition, the past and projected future performance of Swiss exports is compared with foreign demand indicators and with the export performance of other countries. Moreover, a sectoral and regional disaggregation of past exports is presented.

The KOF International Forecasts are sent out each quarter by e-mail in pdf format. A supplementary Excel file provides the forecasts, including data histories, in digital form. Printed copies, in booklet style, are available on request. The KOF International Forecast can be purchased as an annual subscription. Members of the Swiss Society for Business Cycle Research (SGK) receive a discount on the subscription. For a printed inspection copy please contact [internationalforecasts@kof.ethz.ch](mailto:internationalforecasts@kof.ethz.ch).

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# KOF INDICATORS

## KOF Employment Indicator: Outlook for the Labour Market Remains Positive

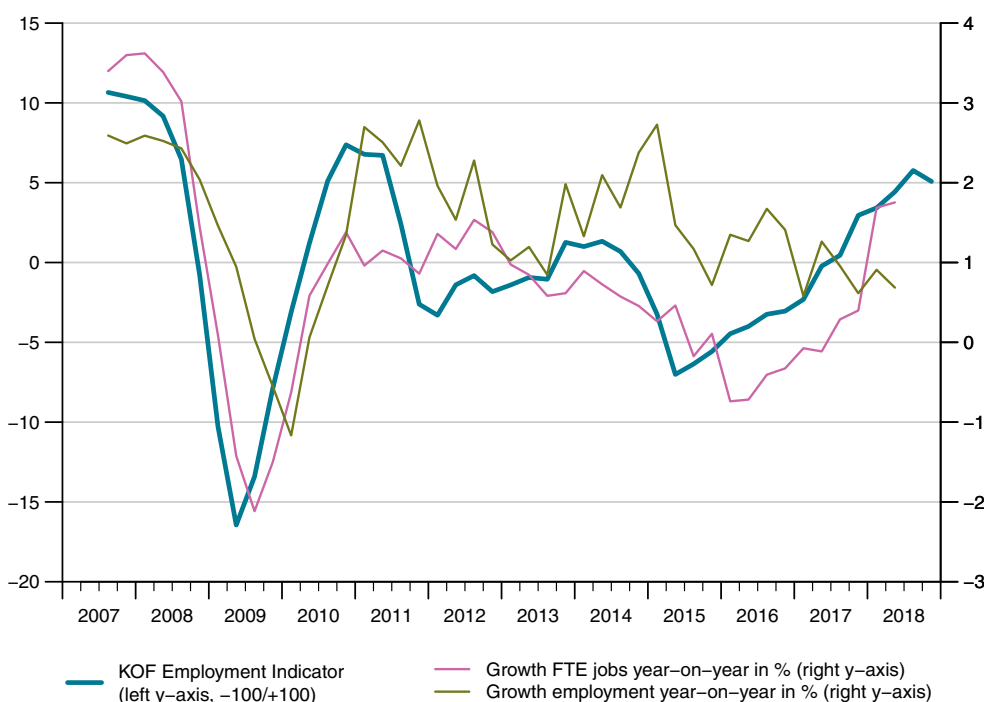
The KOF Employment Indicator has steadied at a fairly high level. Having reached 5.8 points in the third quarter, it currently stands at 5.1 points (see G 6). The Indicator shows that the Swiss companies surveyed by KOF in October are, on the whole, planning to create further jobs.

The prospects for the Swiss labour market remain encouraging. The Employment Indicator now stands at 5.1 points, having hit 5.8 points (revised upwards from 5.7) in the preceding quarter. Although the slow but steady rise in the KOF Employment Indicator, which has been ongoing since the beginning of 2015, has now come to an end, it nonetheless remains fairly high on a historical comparison. The last time it exceeded five points in two successive quarters was back in 2011.

The Employment Indicator is calculated from the quarterly KOF Business Tendency Surveys. When conducting these surveys, KOF asks firms to assess their current staffing levels and to say whether they plan to alter them over the coming three months. On balance, a majority of these companies are currently of the view that their workforce is too small. Consequently, most of the firms surveyed expect to increase their headcount in the next three months. The KOF Employment Indicator represents the average of the surveyed companies' employment assessments and expectations.

### G 6: KOF Employment Indicator, Job and Employment Growth

[Job and Employment Growth According to FSO]



### Highly encouraging employment assessments in 'other services'

The survey findings hold out the prospect of encouraging employment trends across various sectors. The industry-specific employment indicators for manufacturing, construction and wholesaling, for example, are all in positive territory. The largest positive contribution to the current indicator comes from the survey results for providers of 'other services', which include firms engaged in information technology, communications, transport, healthcare and social services. The Employment Indicator for the project engineering industry has also risen sharply this year. The upbeat assessments coming from this fairly small sector are relevant because it is a key indicator of future trends throughout construction. On the other hand, the

responses given by the retailers, hotels, restaurants, banks and insurers surveyed by KOF were slightly more cautious. Surveys suggest that these sectors can expect their employment levels to flatline or even fall.

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Click here for more information about the Indicator and its methodology and to download the data for the Indicator:

[www.kof.ethz.ch](http://www.kof.ethz.ch) →

## KOF Economic Barometer: Upswing Sets a More Leisurely Pace

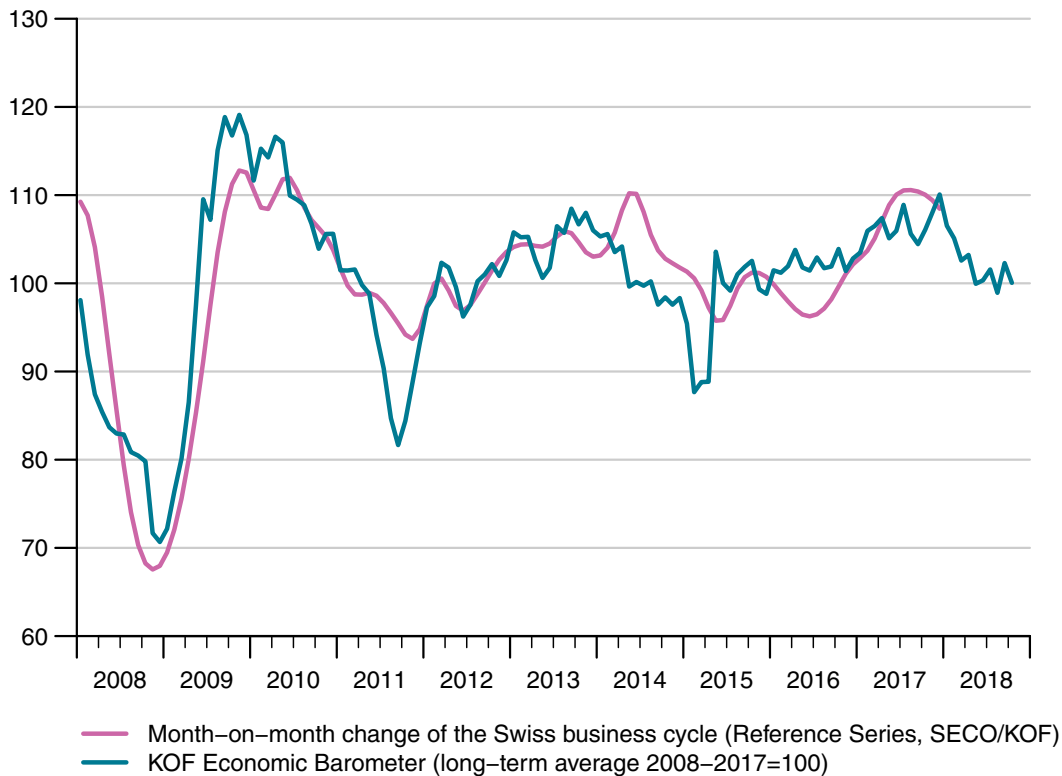
**The KOF Economic Barometer fell in October after having risen in the previous month. At 100.1 points, the barometer is now as good as on its long-term average of 100.0 (see G 7). Since May of this year, the KOF Economic Barometer has thus been fluctuating around its long-term average. The Swiss economy is therefore in the coming months likely to grow with average rates.**

In October, the KOF Economic Barometer fell by 2.2 points, from 102.3 points in September (revised from 102.2 points) to 100.1 points. It is noteworthy that this decline is quite broadly visible in various indicator bundles. The decline in the indicators for the manufacturing sector is particularly striking. But the minus is also visible in the indicators for the construction sector, banking and insurance as well as in the indicators for consumption and export prospects. By contrast, the indicator values for other services as well as accommodation and food service activities have changed only slightly.

In the goods producing sectors (manufacturing and construction), the indicators on the competitive situation and the general business situation are the main reason for the

decline. However, indicators more directly linked to production activity like the development of production, the number of employees and the order situation also developed unfavourably.

Within the manufacturing sector, the downward tendency was led by the machinery and vehicle manufacturers as well as the chemicals, pharmaceuticals and plastics industry. These sectors are followed by the textile and clothing industry, the metal industry, the paper and printing industry as well as the wood, glass, stone and earth industry, all with a minus sign. On the other hand, manufacturers of food and beverages and manufacturers of electrical goods resisted the downward tendency and their outlook improved.

**G 7: KOF Economic Barometer and Reference Series**

#### **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 sporting 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 SFSO 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](http://www.kof.ethz.ch) →

# AGENDA

## KOF Events

### **KOF Research Seminar:**

[www.kof.ethz.ch/en/news-and-events/event-calendar-page/kof-research-seminar](http://www.kof.ethz.ch/en/news-and-events/event-calendar-page/kof-research-seminar) →

### **KOF-ETH-UZH International Economic Policy Seminar:**

[www.kof.ethz.ch/en/news-and-events/event-calendar-page/kof-eth-uzh-seminar](http://www.kof.ethz.ch/en/news-and-events/event-calendar-page/kof-eth-uzh-seminar) →

## Conferences /Workshops

You can find current events and workshops under the following link:

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## Imprint

Publisher	KOF Swiss Economic Institute, ETH Zurich		
Director	Prof. Dr. Jan-Egbert Sturm		
Editor	Dr. David Iselin		
Layout	Vera Degonda, Nicole Koch		
Pictures	Shutterstock, Schweiz Tourismus		
Address	LEE G 116, Leonhardstrasse 21, 8092 Zurich		
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Fax	+41 44 632 12 18	Website	www.kof.ethz.ch/en

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Next publication date: 7 December 2018

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