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# **KOF** Bulletin

No. 97, June 2016

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**KOF Swiss Economic Institute** 

# EDITORIAL

Dear readers,

The outcome of the Brexit vote on 23 June 2016 will be of utmost significance, not only for the UK and the EU but also for Switzerland. Our first article describes the possible impact of a "leave" vote from a British, European and Swiss perspective. In his guest article, Richard Senti explains the Transatlantic Trade and Investment Partnership between the EU and the USA (TTIP) - according to Senti "a riddle wrapped up in an enigma" - and its possible effects on third countries such as Switzerland. The following article is dedicated to the domestic investment trend. According to the latest KOF Investment Survey, total investment by Swiss companies is set to rise in 2016. Following a weak winter season, the number of overnight stays in the Swiss tourism industry is also expected to rise, as you can read in the article on the KOF Swiss tourism forecast. The last article is dedicated to a tourism-related sector - the Swiss wine industry, a sector KOF is now also drawing up forecasts for. The fifth article describes how this is done. On top of that, as always, the KOF Bulletin includes the KOF Business Situation Indicator and the KOF Economic Barometer.

We hope you enjoy your read!

Anne Stücker and David Iselin

# ECONOMY AND RESEARCH

# Possible Impact of the Brexit Referendum on the UK, the EU and Switzerland



The Brexit vote will take place on 23 June 2016. Opinion polls show that the number of opponents to the United Kingdom's exit from the EU is roughly equal to its proponents (see G 1). According to the economic research institutes of the Association of European Conjuncture Institutes (AIECE), a "no" outcome is slightly more likely. Nevertheless, the referendum has already had a negative impact on the British economy. This article provides an overview of the further consequences that may arise from a Brexit not only for the UK but also for the EU and Switzerland.

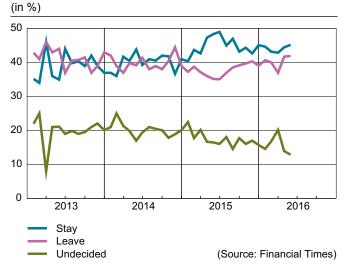
In the context of an internal report, AIECE has polled its members, among them KOF, on the subject of Brexit. According to the institutes, the probability of Britain leaving the EU ranges between 25 and 50 per cent. The majority of institutes expect the potential consequences of an exit to be negative for both the UK and the EU.

## Uncertainty squeezes investment activities

Irrespective of the consequences of a possible exit, uncertainty about the outcome and impact of the vote is already having negative anticipatory effects. Gross capital investment has taken a noticeable dive. Since the end of 2015, the GBP has lost around seven per cent against its main trading partners' currencies, and implied volatility arising from future contracts is at its highest level since the financial crisis. A vote in favour of staying in the EU is likely to reduce uncertainty, result in a revaluation of the pound and encourage increased investment due to catch-up effects in the second half of 2016.

## Political problems in the case of an exit ...

Should the exit proponents win the vote, a two-year renegotiation process on the UK's economic and political relations with the EU will kick off. Possible steps allowing the UK simplified access to the Single European Market could consist of joining the European Economic Area (EEA),



G 1: Opinion Polls on Brexit in the UK

bilateral agreements and free trade agreements with the EU. As the examples of Norway and Switzerland show, these scenarios would, in all probability, be associated with conditions, such as free movement of persons, and the adoption of EU regulations. To avoid creating a precedence, the EU will not be keen on making any major concessions to the UK during the renegotiations. On top of this, as an individual state, the UK will be in a weaker negotiating position and will have to take a backseat role in regional free trade negotiations, such as the Transatlantic Trade and Investment Partnership (TTIP). A Brexit could furthermore encourage voices in Scotland calling for an exit from the UK and affiliation with the EU.

The impact of an exit on the EU is even more difficult to assess. On the one hand, the absence of the UK, which has repeatedly slowed down further integration in the past, may result in closer integration among the remaining countries. On the other hand, Brexit could set a sign for other countries to pursue a more sceptical policy towards integration or even decide to leave themselves. The majority of institutes polled by AIECE assume that Brexit would have a negative effect on further integration in the EU. However, these impacts may not even be mutually exclusive: Britain's exit could trigger further withdrawals and the remaining countries could subsequently pursue closer political integration.

### ... and negative consequences for the economy

A meta-study conducted by the Cologne Institute for Economic Research shows that, even in scenarios involving

simplified access to the Single European Market, a large majority of scientific studies rate the impact of a Brexit as negative and warn that the effects may actually be underestimated. The National Institute of Economic and Social Research has conducted a study investigating the economic impact of a complete discontinuation of the free trade agreements with the EU on the UK economy. According to the authors, the decline in macroeconomic production in the "leave" scenario compared to the "stay" scenario would amount to one per cent in 2017 and two to three per cent in the subsequent years. On top of that, the anticipated devaluation of the pound is likely to result in high inflation which would restrict the monetary leeway of the Bank of England. Depending on the scenario, the authors estimate a longer-term decline in exports of up to 29 per cent and a drop in foreign direct investment of up to 24 per cent. Possible positive effects on economic growth may be anticipated in the longer term, for instance in a study carried out by the Institute of Economic Affairs. The authors surmise that the disappearance of some of the regulatory burden and more flexibility in the negotiation of free trade agreements and agreements on the free movement of persons may increase the UK's production capacity in the longer term.

The EU is also likely to feel some negative effects following a UK departure from the economic area. As to the extent of such effects, one can only speculate. The countries that have the closest trade relations with the UK, for instance Germany, France, Netherlands and Belgium, would probably suffer most from a Brexit. The change in the EU's balance of economic power – with the UK as the proponent of free market policies, France the proponent of a statist approach and Germany in the middle – could, however, be a more important impact in the long-run. Consequently, an EU minus the UK may come to pursue more statist and interventionist policies.

## Impact of Brexit on Switzerland

A UK exit would also be likely to affect Switzerland's negotiations with the EU regarding the compatibility between agreements on the free movement of persons and the implementation of the Swiss Anti-Mass Immigration Initiative. On the one hand, Switzerland might be able to join forces with a post-Brexit UK and other countries in EU negotiations to achieve the best possible result. The common interest between the countries would be unrestricted access to the Single European Market, excluding free movement of persons and political integration. On the other hand, to reduce any incentives for further departures following a UK exit, the EU would be keen to signal that going solo does not pay off. Accordingly, the EU would be likely to follow a hard line in its renegotiations on future relations with the UK. With a view to consistency, this hard line would also be applied to the EU negotiations with Switzerland. Since Switzerland has less negotiating power than Britain, the country is likely to come home with an even less satisfying result than the UK. The risk that the EU may want to make an example of Switzerland to deter other countries cannot be dismissed.

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## TTIP: "A Riddle Wrapped Up in an Enigma"

Rarely has an integration agreement generated as much furore as the EU-US Transatlantic Trade and Investment Partnership (TTIP), which has been under negotiation for three years now. All this despite, or perhaps rather because of, the fact that the negotiations are taking place behind closed doors. In his guest article, Richard Senti\*, who has recently published a book on the subject of TTIP, lists seven problematic areas and points out possible effects on third countries, such as Switzerland.

Under pressure from growing public criticism, the EU and the US government have published sporadic documents and repeatedly issued appeasing declarations. However, neither the disclosure of limited information nor restricted access to supervised reading rooms granted to MEPs has done anything to increase the transparency of the ongoing negotiations. The details of the EU-US Transatlantic Partnership remain a "riddle wrapped up in an enigma", not only for their own partners but also for third countries.

The following overview sets out the seven problem areas currently under discussion and explains how possible decisions may impact third countries, such as Switzerland.

(1) With few exceptions, customs duties on commercial and industrial goods are unproblematic. In the course of previous GATT and WTO rounds, the EU and the USA abolished around half of all customs duties. The majority of the other items are associated with customs duties of one to five per cent – a level that lies below the cost of providing the proof of origin requisite for free trade. Consequently, free trade is hardly relevant in terms of these goods. The exceptions are leather (shoes, bags), clothing, textiles, cars and car accessories. The removal of customs

duties on these products will make it harder for third countries to enter the EU-US market.

(2) Agricultural products and food are rather more sticky issues in the TTIP negotiations. The EU imposes customs duties of 12 to 14 per cent on alcoholic drinks and tobacco, the USA around 80 per cent. Tariffs on milk products are



around 10 per cent in both the EU and the USA. In the last few years, Swiss agricultural and food exports have accounted for three to four per cent of total Swiss exports of goods. Around two-thirds are delivered to EU countries and approximately one-tenth to the USA. Drinks make up approximately 70 per cent of agricultural exports to the USA, cocoa (chocolate), confectionary, coffee and tea around 15 per cent and milk products, especially cheese, around seven per cent (consistent with 0.2 to 0.3% of all Swiss exports to the US). Although there might be some truth to the threat that cheese exports to the USA may be at risk if Switzerland is not included in TTIP, a warning that has popped up recently in the Swiss media, this represents quite an overestimation of its relevance to trade policy.

(3) The TTIP negotiations have not progressed very far in the services sector. The EU considers US demands as "highly ambitious". Under pressure from several EU member states, Brussels has promised to prevent any privatisation of water supply services and other public services. The EU-US service sector negotiations have little impact on Switzerland.

(4) Negotiations in the field of public procurement seem to have all but stalled. The EU and the USA are partners of the WTO Public Procurement Agreement. However, in all its previous integration agreements (including NAFTA and TPP), the USA have insisted on retaining their special clauses (1933 Buy American Act, 1941 US-Berry Amendment and 1983 Buy America Act). For Switzerland, which is also a partner of the WTO Public Procurement Agreement, nothing will change.

(5) In the healthcare sector, a compromise must be found between the European preventative system and the USA's belief in science. Among other aspects, the EU is resisting the use of hormones in cattle farming and genetically modified products in the food industry. In the last few weeks, speculation that the USA will "attack" the EU's preventative system has been corroborated. Should the EU cave in to the US demands, Switzerland, which imports 60 per cent of its agricultural and food products from the EU, will be put on the spot.

(6) In the field of technical safety, the issues include standardisation requirements, pre-departure checks for containers, etc., in other words measures associated with trading costs of 50 to over 100 per cent of the merchandise value. At present, the intention is to waive harmonisation of EU and US measures and instead agree on mutual recognition. This could lead to significant competitive disadvantages for third countries such as Switzerland.

(7) The EU and the USA obviously disagree on the subject of direct investment. According to a Greenpeace statement, the USA are not willing to replace private arbitrating bodies tasked with settling disputes between investors and states with a EU–US court system. The approach to settling disputes between the EU and US does not have a direct impact on third countries. However, a situation may arise where major foreign conglomerates demand that Switzerland introduce a protection system similar to that in the EU–US partnership.

According to the current state of knowledge, it is hard to predict whether the outcome will be a EU–US partnership as envisaged in the objectives set out three years ago, a "light programme" within the bounds of possibility, or postponement of the partnership with each party apportioning blame to the other.

## Contact

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\* Richard Senti is Professor Emeritus at ETH Zürich. His book "TTIP: Transatlantische Handels- und Investitionspartnerschaft zwischen der EU und den USA" was published by DIKE Verlag in 2015.

## **KOF Investment Survey: Companies Set to Expand Investments**

The results of the latest KOF Investment Survey indicate a rise in total investment in 2016. According to the companies, there will be an approximately four per cent expansion of investment activities this year. The results of the Spring Investment Survey 2016 thus confirm the outcome of the last survey in autumn 2015.

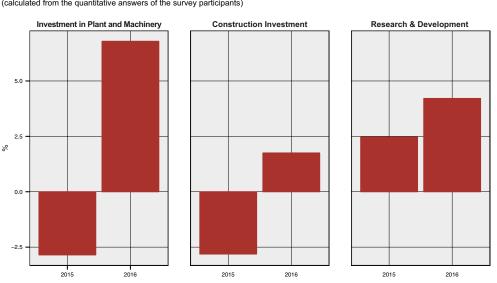
The Investment Survey conducted in spring 2016, which has now been concluded, provides the second set of investment figures for 2016. Last autumn, the respondents already stated their evaluation of expected investment activities in 2016. At the time, they anticipated an increase of around three per cent, predominantly driven by industry and the services sector. The current results show little change in the companies' expectations. According to the current survey results, companies anticipate a slight rise in investment dynamics of approximately four per cent this year. Once again, with increases of three and six per cent respectively, industry and the services sector will be mainly responsible for this expansion. The current results of the KOF Investment Survey of Spring 2016, which was conducted among over 2,700 enterprises, also indicate that the companies expect dynamics to slow down slightly in 2017.

## Industry and services drive gross investment

This year, strong signs of life are expected from the industrial sector. Compared to last autumn, the respondents anticipate a slightly stronger increase in gross investment

of around three per cent this year (autumn: 2%). In this context, construction investment is likely to rise by two per cent while investment in plant and machinery may even grow by up to five per cent (see G 2). The biggest increase is expected in the wood, glass and ceramics sector, with construction investment set to grow fastest. Textile manufacturers and companies in other industries reported the biggest anticipated decline in investments. The chemical and pharmaceutical industries are set for a slight increase, while the metal and engineering industries are planning slightly lower investments.

Aside from the industrial sector, the tertiary sector will also play an important role in raising macroeconomic private investment. Similar to last autumn, the service companies taking part in the survey expect a close to six per cent increase in gross investment in 2016 (autumn: 5%). Insurance companies are the most investment-friendly, although companies providing B2B business services and transport companies also report a significant increase in their gross investment plans for 2016. In contrast, retailers

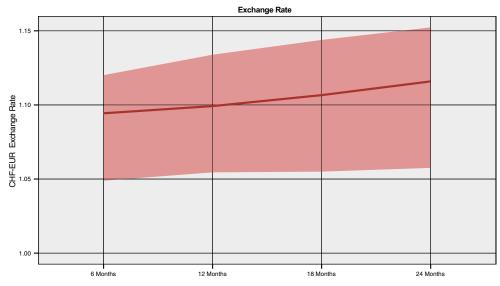


#### G 2: In-/Decrease in Investment by Sector

(calculated from the quantitative answers of the survey participants)

#### G 3: Companies' Exchange Rate Expectations

The shaded area indicates the most probable range in which the companies expect the exchange rate to be. The unbroken line shows the value that is assumed to be the most likely exchange rate.



and communications companies are planning to cut investments this year. The construction sector is less optimistic than the industrial and service sectors where investment activities in 2016 are concerned. According to the respondents, gross investments in 2016 are likely to be six per cent lower than last year. The decline is mainly due to the main construction trades, while the finishing trade is envisaging an expansion of investment in the current year.

## Swiss companies anticipate slight devaluation

After the suspension of the minimum CHF-EUR exchange rate, a question regarding the future development of the exchange rate was included in the KOF Investment Survey.



In this context, KOF asks the companies about their subjective exchange rate expectations. The companies are asked to state the upper and lower limit of a target range in which the CHF-EUR exchange rate will most likely be in the coming six, 12, 18 and 24 months. Subsequently, the companies are asked to indicate the figure within the range they consider most likely.

According to the current survey results, the companies expect a CHF-EUR exchange rate of around 1.10 in the coming two years (see G 3). However, all in all, the average expectations show a slight downward tendency. While the companies anticipate an exchange rate of 1.095 in six months, their estimate in two years is a slightly weaker Swiss franc with an average exchange rate of around 1.115. On the whole, the companies' expectations are dominated by significant insecurity. The average limits of the target ranges stated by the companies indicate expectations of an exchange rate between 1.06 and 1.15 in two years' time.

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## Swiss Tourism: Prospects Improving for the Summer Season

Low levels of snowfall, a strong franc and global economic and political uncertainties have had an adverse effect on tourist demand in Switzerland. The number of overnight stays fell accordingly in the winter season. Particularly demand from abroad was weak. The KOF is expecting a more positive development in the summer season. Growth in overnight stays is expected to reach 1.4 per cent. According to the KOF, the shift from Alpine tourism to city breaks is continuing.

## A review of the 2015/2016 winter season: Low levels of snowfall and a strong frank as adverse factors

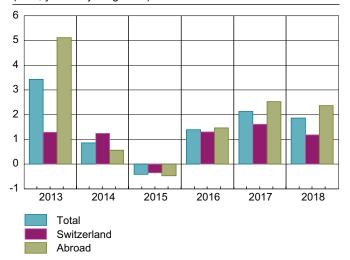
Unfavourable weather conditions and the strong franc resulted in a weak 2015/2016 winter season for Swiss tourism. The number of overnight stays fell by 1.6 per cent compared to the previous year. Particularly demand from abroad decreased significantly. According to expectations, a lower number of overnight stays were purchased from the Eurozone. In addition, uncertainties concerning the global economic climate and political instability dampened demand. Overnight stays by foreign visitors fell by 3.7 per cent. According to current estimates, overnight stays by national residents grew marginally by 0.5 per cent compared to the previous year's season. However, the development remained slightly behind expectations. In particular in the Alps, the persistent scarcity of snowfall led to a collapse in demand.

## Forecast for the 2016 summer season: prospects improving

Following the difficult winter season, the prospects for Swiss tourism are gradually improving. The slow economic recovery in Europe, including the robust increase in consumer spending, and the stable exchange rate are expected



**G 4: Development of Overnight Stays in the Summer Season** (in %, year-on-year growth)



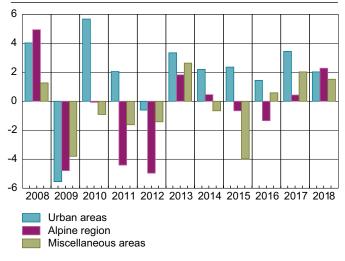
to provide sporadic positive impulses to national tourism once again. In addition, due to the improved national economic climate, demand from Switzerland is projected to be higher than during the last summer season. For the coming summer season, KOF is forecasting an increase in the number of overnight stays by national residents of 1.3 per cent. Overnight stays by foreign residents are projected to increase by 1.5 per cent this summer. As before, urban areas report the strongest growth. Thanks to the increasing popularity of city breaks, the increase in the number of guests from distant markets and stable demand for business travel, KOF expects there to be further growth in the number of overnight stays in urban areas. Slight increases in the number of overnight stays are expected in the summer, also in the Alpine area.

## Tourism value added moving sideways

Overall demand for tourism, which is comprised of national and international demand, developed largely sideways this year. The KOF is also forecasting stagnation for gross value

## G 5: Development of Overnight Stays in the Regions by Tourism Year

(in %, year-on-year growth)



added. This stands in contrast to the situation in 2015, which saw overall revenues fall as a result of the abrupt price adjustments following the removal of the exchange rate floor, whilst leaving little scope for savings on the cost side. Overall demand, and thus the revenue position of the tourist sector, is only expected to improve sustainably next year. At the same time, moderate growth in gross value added is expected.

#### **Travel patterns of national residents**

A special analysis throws light on the travel patterns of national residents. Tourist demand from national residents provides an important basis for the national tourist economy. Practically all day-trips and around 40 per cent of overnight stays made by the resident Swiss population are domestic. However, growth in tourist demand, which is outpacing the increase in population levels, appears to have focused predominantly on foreign destinations over the last few years. This dynamic is also supported by the high purchasing power of the Swiss franc. In Switzerland, urban areas have gained market share from the Alpine regions and other areas also in terms of national demand.

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The KOF tourism forecasts are prepared on behalf of the State Secretariat for Economic Affairs (SECO). According to the Swiss Federal Act on the promotion of innovation, cooperation and the expansion of expertise in the tourism sector (Innotour), the SECO is able to finance tourism forecasts. The direct addressees of tourism forecasts are the industry and the cantons. You can find the complete report of the KOF tourism forecasts here:

www.kof\_forecast\_tourism\_switzerland  $\rightarrow$ 

## Modelling and Forecasts for the Swiss Wine Market: Challenges and Prospects

The Panel Vector Autoregressive Model (Panel VAR) applied to figures for sales of wines at large retail outlets in Switzerland has given its first results. It is thus interesting to note some of the theoretical concepts endorsed by this approach, which results from cooperation between three members of KOF in order to provide joint clarification of questions relating to the modelling of and forecasting concerning the Swiss wine market.

#### Introduction and description of the data

The objective of this study is to model and understand the economic phenomena underlying the Swiss wine market. With this aim, KOF has published an article on the economic shocks and economic forecasts for Swiss wine in large retail outlets. Using panel data elaborated on the basis of the Nielsen data provided by the Swiss Wine Market Observatory (OSMV) as part of a cooperation with that body, it is possible to apply the "Panel VAR" model (see OSMV reports no. 1 and 5; KOF Bulletin No. 87).

These data relate to Swiss AOC wines over a period of four years (2012–2015), aggregated according to colour (red, white and rosé) and AOC wine-growing region (Valais, Vaud, German-speaking Switzerland, Geneva, Ticino and the 3 lakes), with reference to two principal variables: quantity and price. As this panel was made up of 169 different types of AOC wine (for example "Valais Fendant" or "Ticino Merlot") over 13 cycles (of four weeks each) per year, it was possible to analyse 52 periods for each type of wine, giving a total of 8,788 observations.

## The economic shocks

Economic shocks, which are by definition exogenous, cannot be predicted by a model, and accordingly their impacts can only be incorporated into the "Panel VAR" model ex post.

Supply-side shock could include hail in a Swiss wine-growing region (Valais), an epidemic (Drosophila Suzukii) or a defective fungicide (Moon Privilege). The impact of these exogenous phenomena would be an automatic fall in the quantities of wine offered on the market, accompanied by price rises.

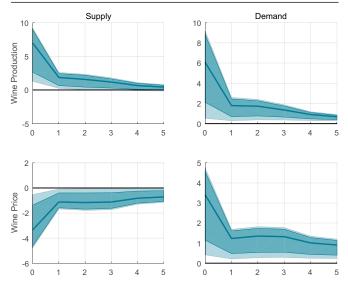
As far as demand-side shocks are concerned, a prominent example is the removal of the exchange rate floor (1.20 CHF/EUR) announced on 15 January 2015 by the Swiss National Bank (SNB). A further example is the change in the rules governing imports into Switzerland (Federal Customs Administration). In fact, as of 1 July 2014 it has been possible to import five litres of wine per person per day exempt from customs duty, rather than the previous two litres. The potential economic consequences of these demand-side shocks could be an increase in competition for Swiss wines, which are becoming relatively more expensive compared to imported foreign wines.

## The "Panel VAR" model and the first results

This econometric model allows for the incorporation of three approaches to modelling and forecasting quantities and prices on the Swiss wine market (see OSMV report no. 1):

- A technical analysis of past data (2012-2015).
- The factors of influence for modelling and forecasting, such as macro-economic indicators, climatic factors and agricultural data (harvest).
- Exogenous shocks to supply and demand.

## G 6: Impulse Response Function (IRF) in Relation to Shocks



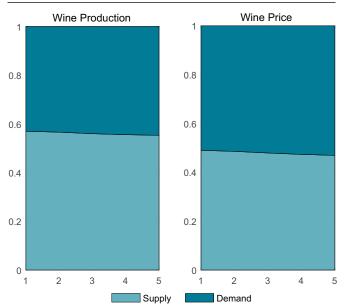
On the basis of the preliminary analyses carried out using the "Panel VAR" model, it has been possible to analyse the impact of a supply-side shock and a demand-side shock on quantities and prices. The results are presented in a line graph with the shaded area representing a confidence interval of 95 per cent (see G 6).

Thanks to the introduction of a theoretical impetus into the system, it is possible to analyse the response in terms of quantities and prices to supply-side or demand-side shocks. The two types of shock can be distinguished from each other by considering whether the trends are positive or negative: where quantity and price both evolve in the same direction (both positive, or both negative), a demandside shock may be identified, whilst where they evolve in opposite directions (positive-negative or negative-positive) this indicates a supply-side shock.

In the event of a positive supply-side shock (see G 6 Supply), the quantity of wines increases by around seven per cent compared to the reference level whilst the price falls by around three per cent. After the quantities return to equilibrium (after five months), prices are still affected (-1.5 per cent). In the event of a positive demand-side shock (see G 6 Demand), the quantity rises by around six per cent compared to the reference level, whilst the price increases by around 3.5 per cent. Although the quantity stabilises again after five months, the effect on prices is still felt for much longer.

Graph G 7 displays the explained share of prediction error for each shock, supply-side and demand-side respectively, in relation to the two principal variables: quantity (left) and price (right).

#### G 7: Variance Explained by Prediction Error



Generally speaking, the quantity of wine appears to be more influenced by supply-side shocks, whilst the price of wine remains more balanced between the two types of shock. Over the long term, i.e. five months after the simulation of a shock, demand appears to be of greater significance in interpreting variance explained in terms of both quantity and price.

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## **KOF INDICATORS**

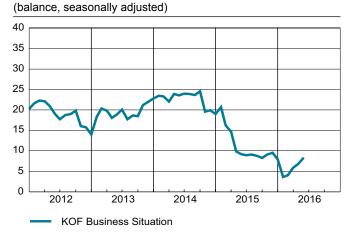
## KOF Business Situation: Brightening Up Again

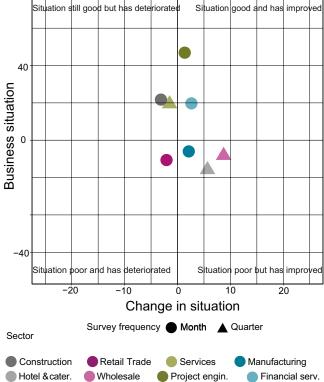
The KOF Business Situation Indicator for the Swiss private economy has risen for the fourth consecutive time. After a significant slowdown at the beginning of the year, the indicator has now almost retuned to the levels last seen in summer/autumn 2015. Companies have recently gained ground, although the situation is still considerably more unfavourable than before the suspension of the Swiss franc/euro minimum exchange rate in January 2015. Nevertheless, Swiss companies, especially export-oriented enterprises, are slowly regaining their footing.

The rise of the Business Situation Indicator in May is due to the manufacturing industry and the financial and insurance service providers (see G 8). The positive business situation in the project engineering sector has also improved slightly. In contrast, the construction industry's upturn in spring was less substantial than usual and the business situation has somewhat deteriorated. Retailers are also more dissatisfied with their business situation than before. Wholesalers, the hotel and catering sector and the other service providers were last surveyed in April. The business situation in the wholesale and hotel and catering sectors is currently less unfavourable than three months ago. The indicator for the other service providers was subject to slight downward pressure.

From a regional perspective, the business situation has picked up again, especially in North-West Switzerland (see G 9). Following a setback in the previous month, the manufacturing sector in North-West Switzerland, particularly,

G 8: KOF Business Situation Indicator

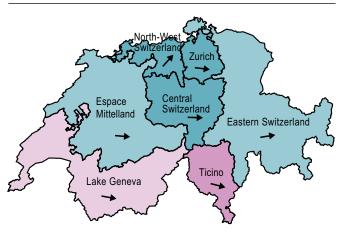




managed to regain ground. The business situation in Espace Mittelland, Central Switzerland, the Zurich region and Eastern Switzerland has not changed much. In Ticino and the Lake Geneva region, the situation has become slightly less favourable. In the latter region, negative signals are coming especially from the construction sector.

#### G 9: KOF Business Situation: Change in Different Sectors

G 10: 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



## **Explanation of Graphs**

Graph G 8 shows the KOF business situation for all sectors of the economy covered by the survey. For economic sectors that are only surveyed quarterly, the business situation is kept at the same level during the intervening months.

Graph G 9 shows the business situation and the current change in the situation. For monthly surveys the changes compared to the previous month are highlighted. For quarterly services the changes in the most recent quarter compared to the previous quarter are reported. The quarterly values are not changed in the intervening months and are only updated in the first month of each quarter.

Graph G10 reports the business situation in the major regions according to the Federal Statistics Office. The regions are coloured differently depending on the business situation. The arrows within the regions indicate the change in the business situation compared to the previous month. For example, an upward arrow means that the situation has improved compared to the previous month.

The KOF business situation is based on more than 4,500 reports from businesses in Switzerland. Each month businesses are surveyed in the economic sectors of industry, retail trade, construction, project engineering and financial and insurance services. Businesses in the hotel and catering sector, wholesalers and other service providers are surveyed quarterly in the first month of each quarter. Businesses are requested, amongst other things, to assess their current business situation. They may class their situation as "good", "satisfactory" or "bad". The balance of the current business situation is the percentage difference between the answers "good" and "bad".

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You can find more information about the KOF Business Tendency Surveys on our website: www.business\_tendency\_surveys.ch →

## **KOF Economic Barometer: Positive Trend Continues**

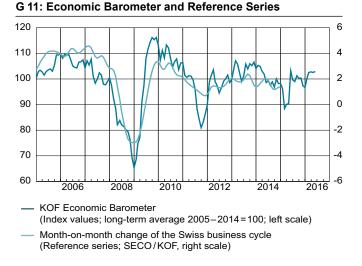
In May, the KOF Economic Barometer barely changed compared to its April value. It stands at 102.9 points compared to 102.6 in April (see G 11). Since February, the Barometer has been solidly standing above its long-term average. This indicates an on-going positive development of the Swiss economy in the coming months.

The Economic Barometer has risen minimally in May compared to the previous month. Positive signals came from the manufacturing sector, the financial sector and the export sector. Indicators related to private consumption, however, show a negative dynamic.

Within the construction sector, slightly positive impulses come from the architectural and project engineering offices, whereas the main construction sector signals a negative dynamic. The positive impulses coming from the manufacturing sector need to be differentiated as well. These can be found mainly in the machinery, metal and the paper industry, whereas the chemical and the electronic industries contribute negatively. For the entire manufacturing sector, the purchase of intermediary products, employment, and the production side show a positive dynamic. Negative signals are coming from KOF survey data related to inventories.

## KOF Economic Barometer and reference time series: annual update

This annual update concerns the following stages: redefinition of the pool of indicators that enter the selection procedure, update of the reference time series, a new execution of the variable selection procedure and a technical adjustment of how to cope with missing monthly values of quarterly variables. Compared to 479 indicators that entered the variable selection procedure in October 2014, the current pool comprises 420 indicators due to elimination of KOF surveys related to prices and monthly changes in inventories. The updated reference series is the smoothed continuous growth rate of Swiss GDP according to the new System of National Accounts ESVG 2010, released at the end of August 2015, which takes into account the release of the previous year's annual Gross Domestic Product (GDP) data by the Swiss Federal Statistical Office. As a result of the indicator variable selection



procedure, the updated KOF Economic Barometer is now based on 238 indicators (instead of 217 as in the previous vintage) that are combined using statistically determined weights. Last but not least, with this annual update we introduce a slight modification of how the variables observed at only the quarterly frequency are treated when computing the Barometer. Instead of freezing those values until the next quarterly release is available, we now implement a statistical procedure to interpolate data values for these variables using the information contained in all other variables that are available at monthly frequency.

## Contact

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For detailed information on the KOF Economic Barometer, visit our website: www.economic\_barometer.ch →

## AGENDA

## **KOF Events**

## **KOF Wirtschaftsforum**

mit Vorträgen von Regierungspräsident Ernst Stocker und Prof. Marko Köthenbürger, KOF-Vizedirektor ETH Zürich, Dienstag, 21. Juni 2016, 16.15 Uhr www.kof.ethz.ch/de/kof-wirtschaftsforum.ch →

## KOF Prognosetagung Herbst 2016

Die schweizerische Wirtschaftsentwicklung bis 2018 Gastreferent: Prof. Clemens Fuest, Präsident ifo Institut, München ETH Zürich, Donnerstag, 6. Oktober 2016, 17.15 Uhr

## **KOF Research Seminar:**

**The Speed of Exchange Rate Pass-Through** Philip Sauré – SNB ETH Zurich, 8 June 2016

## Child Abuse, Sexual Assault, Community Violence and High School Graduation

Timothy M. Diette – Washington and Lee University ETH Zurich, 13 June 2016

## A Partially Parametric Model

Daniel J. Henderson – University of Alabama ETH Zurich, 15 June 2016

#### Obstfeld and Rogoff's International Macro Puzzles: A Quantitative Assessment

Jonathan Eaton – New York University ETH Zurich, 20 June 2016

## **tba** Kajal Lahiri – University at Albany

ETH Zurich, 27 June 2016

## Optimal Energy Taxation in Cities

Jan Brueckner – University of California, Irvine ETH Zurich, 11 July 2016

## tba

Farid Toubal – Paris School of Economics ETH Zurich, 13 July 2016

## Toward robust early-warning models: A horse race, ensembles and model uncertainty

Peter Sarlin – Hanken School of Economics, Finnland ETH Zurich, 3 August 2016

## www.kof.ethz.ch/kof-research-seminar $\rightarrow$

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

Finding Success in Tragedy: Forced Entrepreneurs after Corporate Bankruptcy Isaac Hacamo – Indiana University ETH Zurich, 9 June 2016

## tba

Takeo Hoshi – Stanford University ETH Zurich, 16 June 2016

Samuel Kortum – Yale University ETH Zurich, 22 September 2016

## www.kof.ethz.ch/kof-eth-uzh-seminar $\rightarrow$

## Conferences/Workshops

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# **TABLE KOF SPRING FORECAST 2016**

#### SWITZERLAND

### Real Gross Domestic Product by Type of Expenditure

Real Gloss Domestic Floduct by T		Jeniana																
		Percentage change against																
		previous quarter (annualized, trend cycle component)													previous year			
	2006-		20	)15			20	16			20	17		2015	2016	2017		
	2014	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Private consumption	1.7	0.8	0.9	1.0	1.2	1.6	1.8	1.6	1.6	1.7	1.6	1.5	1.4	1.1	1.5	1.6		
Public consumption	1.0	2.5	0.7	-0.2	1.1	2.9	2.3	0.9	0.5	0.8	0.9	0.5	0.5	1.7	1.6	0.8		
Gross fixed capital formation	1.9	1.1	2.4	2.0	1.5	1.7	-0.8	-3.0	-1.0	2.7	2.5	1.3	3.4	1.4	1.2	0.6		
- Construction	1.6	-1.7	-3.0	-3.7	-0.1	3.9	3.5	1.6	0.3	-0.3	0.2	1.1	1.4	-1.2	1.2	0.6		
<ul> <li>Machinery and equipment</li> </ul>	2.0	3.0	4.6	5.0	2.5	0.4	-3.2	-6.0	-2.1	4.7	4.2	1.4	4.5	3.2	1.2	0.6		
Exports of goods (1) and services	3.6	1.7	4.8	5.2	2.9	0.9	0.5	1.2	2.6	3.7	3.9	2.9	3.5	1.9	2.1	2.9		
– Goods	3.3	-4.0	0.1	6.3	7.6	4.0	0.0	2.0	4.4	5.4	4.7	3.9	4.4	0.7	3.6	4.1		
– Services	3.0	-0.4	-0.1	-2.7	-6.9	-2.0	2.7	1.0	1.3	1.9	1.4	1.7	2.3	-0.2	-1.3	1.6		
Imports of goods (1) and services	3.3	-1.0	-0.9	3.7	7.8	5.8	1.5	-0.9	1.0	5.0	4.5	2.6	3.5	1.8	3.4	2.8		
– Goods (1)	2.6	-5.9	-4.7	4.1	11.9	7.6	1.5	-0.2	1.7	6.5	5.5	2.8	4.2	-0.9	4.2	3.7		
– Services	5.1	7.5	5.3	4.6	1.5	2.2	0.7	-1.6	-0.1	1.8	2.3	2.4	2.1	7.4	1.9	1.1		
Change in stocks (2)	0.2	-1.4	-4.1	-1.7	0.4	-0.8	-0.9	0.4	0.0	0.6	0.4	0.1	-0.2	-0.5	-0.9	0.3		
Gross Domestic Product (GDP)	2.0	0.6	0.0	0.3	0.8	1.2	1.0	1.4	2.1	2.3	2.3	2.0	2.1	0.9	1.0	2.0		

(1) Without valuables (i.e. precious metals including non-monetary gold, precious stones and gems as well as objects of art and antiquities) (2) Percentage contribution to GDP-growth

Other Macroeconomic Indicators																
			Percentage change against													
			previous quarter													year
	2006-		20	15			201	16			201	7		2015	2016	2017
	2014	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real effective exchange rate of CHF (1)	1.5	38.3	7.4	-11.4	-6.3	-5.4	-2.1	-2.5	0.3	-1.9	-1.5	-2.8	-0.4	7.0	-4.3	-1.5
Short term interest rate (3-month Libor CHF) (2)	0.8	-0.7	-0.8	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.7	-0.8	-0.8	-0.8
Yield of 10 years federal bonds (2)	1.8	0.0	0.0	-0.1	-0.2	-0.4	-0.3	-0.2	-0.1	0.0	0.1	0.2	0.3	-0.1	-0.2	0.1
Consumer prices (3)	0.4	-0.7	-1.1	-1.4	-1.4	-1.0	-0.8	-0.6	-0.4	-0.1	0.1	0.2	0.3	-1.1	-0.7	0.1
Full-time equivalent employment (4)	1.5	1.3	0.4	-0.2	0.0	0.5	0.7	0.8	0.8	0.7	0.8	0.9	1.0	0.8	0.4	0.8
Unemployment rate (2,5)	3.0	3.2	3.3	3.3	3.4	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.3	3.5	3.6

(1) Annualized

(2) Level

(3) Same quarter of previous year
(4) Smooth components annualized
(5) Unemployed as percentage of labour force according to census of 2010

#### GLOBAL ECONOMY

			Percentage change against													
				pre	evious	quarter	· (annu	alized,	season	al adjus	sted)			pre	evious	year
	2006-		20	15			20	16			20	17		2015	2016	2017
	2014	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real Gross Domestic Product (GDP)																
– OECD total	1.3	2.0	2.4	2.0	0.9	1.6	1.8	2.0	1.9	2.3	0.9	1.8	1.8	2.0	1.7	1.8
– European Union (EU-28)	0.8	2.4	1.8	1.5	1.6	1.2	1.4	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.5	1.8
– USA	1.3	0.6	3.9	2.0	1.0	2.1	2.6	2.6	2.3	2.3	2.2	2.1	2.1	2.4	2.2	2.3
– Japan	0.5	4.6	-1.4	1.4	-1.1	1.0	1.2	1.2	1.2	3.6	-5.8	1.2	1.2	0.5	0.6	0.4
Oil price (\$ per barrel) (1)	89.8	54.0	62.1	50.0	43.4	34.5	34.7	34.9	35.0	35.2	35.4	35.6	35.7	52.4	34.8	35.5

(1) Level

® KOF, ETH Zürich

Imprint											
Publisher	KOF Swiss Economic Institute, ETH Zurich										
Director	Prof. Dr. Jan-Egbert Sturm										
Editors	David Iselin, Solenn Le Goff, Anne Stücker										
Layout	Vera Degonda, Nicole Koch										
Pictures	Shutterstock										
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Next publication date: 1 July 2016



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