

Article: The effects of international sports events on Switzerland's gross domestic product

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Introduction

Switzerland is home to a number of international sports associations such as the Union of European Football Associations (UEFA), the International Federation of Football Association (FIFA) and the International Olympic Committee (IOC). These associations are responsible for putting on major sports events, particularly the European Championship and World Cup in football and the Summer and Winter Olympics, each of which takes place every four years.

From a national accounts perspective, staging and marketing major events of this kind generates value added. ESA 2010 states that economic entities are assigned to the country in which they undertake sizeable volumes of economic activities and transactions. The international associations mentioned above are therefore assigned to Switzerland and their value added is included in Switzerland's gross domestic product (GDP). In view of the major significance of large-scale sports events, the amount of value added generated by these international associations depends heavily on whether or not such an event is held in a particular year.

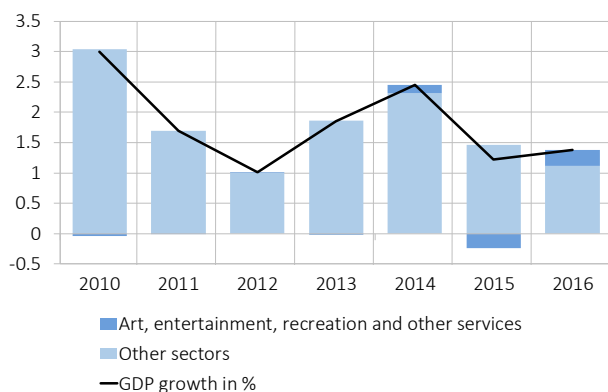
Impact on annual growth

As it happens, the gross value added in the "Art, entertainment, recreation and other services" sector (General Classification of Economic Activities (NOGA) 90-96), which also includes sports services, increased by 6.6% in real terms in 2014, a year that had both a Winter Olympics and a FIFA World Cup. No major sports events were held in the following year and real value added for the sector fell by 11%. In 2016, which saw a European Championship and Summer Olympics, the gross value added contributed by this sector increased by 13.4% in real terms. The economic output from this sector has thus followed a two-year cycle for some years.¹ Fluctuating revenues from rights sales (broadcasting and commercial rights) are likely to play a key role here. However, the figures for 2016 are provisional and may thus still be revised.

Although the sector only accounts for 2% of GDP, such high growth rates have a substantial effect on the aggregate result. In 2014, the entertainment industry increased GDP growth by 0.1 of a percentage point, whereas in 2015 it cut GDP growth by 0.2 of a percentage point. The following year, the sector was back making a net contribution, this time of 0.3 of a percentage point according to provisional data (Figure 50). In other words, so great is this sector's influence that it can obscure other macroeconomic trends. For instance, although the value added by all other sectors in 2015 grew faster than in 2016, major international sports events resulted in GDP growth actually coming out higher in 2016 than the year before. Due to the small number of observations, it is not currently possible to assess how stable the effect of major sports events will be over time. We can assume that the magnitude of the effect will vary and will not always be as great as in 2016. However, the two-year pattern looks set to continue to appear in this sector.

Figure 50: Contribution by the entertainment industry to GDP growth

In real terms, growth contributions in percentage points



Source: Swiss Federal Statistical Office FSO

¹ The fluctuations relating to major events are only clearly evident from 2014 onwards. This is linked to improvements in the quality of the underlying statistics, while the fluctuations may also have been less marked in previous years.

Impact on quarterly growth rates

The impact of major sports events on annual data for value added can be assessed by means of a regression analysis.² However, there is very little information available on how this effect evolves over the various quarters. Although the timing of the major event is known, the value added is not only created during the event itself. In particular, there is a need for considerable preparation and follow-up work. SECO takes account of this when converting the estimated annual effect into quarterly figures, by essentially spreading it across all four quarters of the particular year. However, the timing of major events is also considered by assuming that, in years when the Winter Olympics (February) and FIFA World Cup (June/July) are held, the corresponding value added increases quickly in the first half of the year, peaking in the second quarter. By contrast, it is assumed that growth is slower in years when the European Championship (June/July) and Summer Olympics (August) are held, with peak growth not coming until the third quarter.

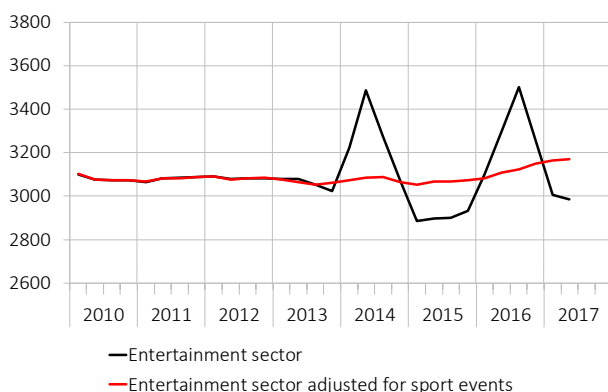
If major events of this kind were to take place in the same quarter every year, their effects would be evened out by the seasonal adjustment. As they are only held every other year, however, this cannot be put down to “seasonal effects”, which according to current conventions only apply to fluctuations within a year. Fluctuations every two years are considered part of the economic cycle by definition. Therefore, the effect of major events also remains apparent in the seasonally adjusted data.

Distributing the effects of major events over four years

The major events under discussion are held regularly, scheduled in advance and provide little information on the economic situation. For the purposes of an economic interpretation, therefore, it may be interesting to analyse a GDP series that had been adjusted for these effects. Although excluding the entertainment sector from an analysis of GDP would be easy enough, it would be inadequate because the economic output from this industry (whether related or not to major events) would simply be ignored. A more sensible approach would appear to be to treat the value added by such major events separately and spread it across a number of years. As the World Cup and European Championship as well as the Summer and Winter Olympics are all held every four years, a four-year span would seem appropriate. Although the annual values for the set of data “adjusted for sports events” no longer match the unadjusted annual values, equivalence can be restored by totalling up the values over the entire four-year cycle.³ In other words, the value added by major events is only shifted in time rather than being ignored completely. Figure 51 illustrates the effect on the entertainment sector. The peaks in the years featuring major events (2014 and 2016) are evened out, while the level in the years with no major events (2015 and 2017) is increased. This provides a clearer picture of the general economic situation and one that is no longer skewed by major events.

Figure 51: Value added by the entertainment sector

In real terms, in CHF million



Source: SECO

The method used for the adjustment is the same as that used all over the world for adjusting for calendar effects. For example, it will spread the effects of a “fallow” year, insofar as these are significant, over the whole of the four-year cycle. Major sports events, however, do not so much involve calendar effects in the strict sense; rather, they are more so a

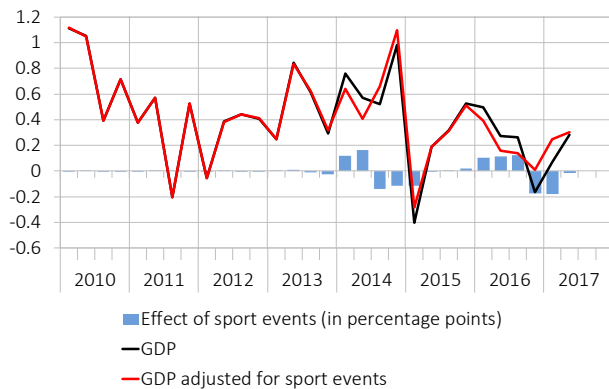
² However, this only applies for the overall effect. The effect for a specific event such as a Winter Olympics or World Cup cannot be estimated using annual data as both events happen in the same year.

³ If a seasonal adjustment is also made, this equivalence will admittedly no longer be guaranteed exactly. This does not pose a problem, however, as methods of seasonal adjustment do not usually require the annual values of adjusted and unadjusted datasets to be equivalent.

special case that is not explicitly covered by Eurostat guidelines.⁴ The international guidelines are therefore not clear on how regular fluctuations with a multi-year cycle should be handled.

Figure 52: GDP and major events

In real terms, seasonally adjusted; GDP: quarter-on-quarter change in %



Source: SECO

The effects of this kind of adjustment on Switzerland's GDP would not be insignificant. Growth rates in particular quarters would be very different (Figure 52): in the fourth quarter of 2016, for instance, growth would be 0% instead of -0.2%. Nevertheless, the adjustment changes the overall picture of the economic situation only slightly. Regardless of any adjustment for "sports event effects", therefore, the data indicates sluggish growth in the second half of 2016 and faster growth in the first half of 2017.

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⁴ Eurostat, 2015, ESS Guidelines on seasonal adjustment, section 2.3 and 2.6.