

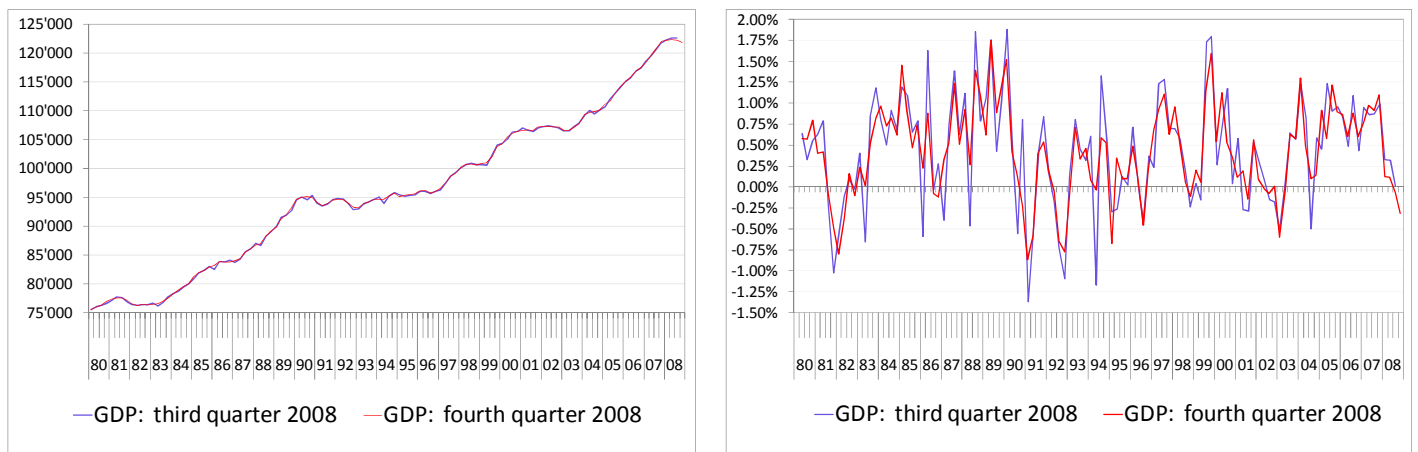
### Technical note

#### **Seasonal Adjustment of Quarterly GDP (Gross Domestic Product): modification introduced with the fourth quarter of 2008**

Since the fourth quarter of 2005 a quarterly production account has been published. Quarterly GDP, at constant and current prices, is derived since then as the sum of 18 components of the quarterly production account (16 production domains, plus taxes on production, less subsidies on production). In such a context, the question arises, whether the seasonal adjustment of GDP should be performed *directly* or *indirectly*. The direct approach implies that GDP is first computed by aggregation of the raw data (the raw 18 components) and then seasonally adjusted, whereas the indirect approach implies that the 18 components of the production account are first seasonally adjusted<sup>1</sup> and the seasonally adjusted GDP is obtained by aggregation of these series. The literature suggests that when the components have different seasonal patterns and a good seasonal adjustment can be achieved for all components (when of course seasonality is present), indirect adjustment should be preferred. The appropriate approach to adopt in a particular case depends on additional criteria as well. While the nature of the time series treated and its underlying characteristics remain central, the amount of successive revisions and the coherence in the interpretation of an aggregate and its components (after seasonal adjustment) may influence the decision. When seasonal adjustment is carried out directly for an aggregated series, the risk always exists that a lack of coherence is observed between the information delivered by both the seasonally adjusted components and the aggregate. When seasonal adjustment of an aggregate is carried out indirectly, by definition this risk disappears. Until the third quarter of 2008, Swiss GDP was seasonally adjusted using the direct approach. Since the fourth quarter of 2008, the indirect approach is used, i.e. seasonally adjusted GDP figures, at constant and current prices, are obtained as the aggregate of the 18 seasonally adjusted components of the production account. The various reasons and criteria used, that explain this revision, are presented in a more detailed technical note, written in German, and available under: <http://www.seco.admin.ch/themen/00374/00456/00458/index.html?lang=de>

#### **Figure 1 : GDP at constant prices, level and quarter-on-quarter growth rates**

directly and indirectly seasonally adjusted series (official data through 3Q2008, new official data through 4Q2008)



SECO, Short Term Economic Analysis, Peter Steiner (031 322 28 60).

<sup>1</sup> The seasonal adjustment of the 18 components of the production account is performed even if the seasonal adjustment of aggregate GDP is carried out directly, to help interpreting the current economic development.