

## **What can we know when? Tracking economic activity in real time**

By Alain Galli (SNB), Christian Hепенstrick (SNB), and Rolf Scheufele (SNB)

Large macroeconomic shocks are often easy to observe in real time, e.g., the discontinuation of the EURCHF minimum exchange rate in Switzerland, the Lehman bankruptcy in the United States, or the Tohoku earthquake in Japan. Assessing in real time the resulting effect on economic activity, however, is more challenging. Against this backdrop, we document what the user of the state-of-the-art dynamic factor model (Doz et al, 2012) can expect to know when. In the case of Switzerland, the following results emerge. First, two months into a quarter, one gets a reasonably good reading on activity during this quarter. Second, the ex-post revision of this reading is quite small, in particular in comparison to the revision of official GDP growth estimates. Third, at the time of the initial GDP estimate, the factor model provides a better forecast for final GDP than the initial GDP estimate itself. Preliminary results for other countries confirm these findings. This leads us to the conclusion that a factor model is an indispensable part of every applied macroeconomist's toolkit and that the signal from such a model deserves to be treated as an independent measure of current economic activity and not just as a mere forecast of an eventual official GDP growth estimate.