Discussion

of

"Unemployment and Monetary Policy in Switzerland" by Peter Kugler and George Sheldon

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In their contribution, KUGLER and SHELDON (2010) (henceforth KS) adopt the so-called Battle-of-the-Mark-ups model developed by LAYARD and his co-authors (1986, 1991) to address a series of issues regarding the link between inflation and the labour market as well as the behaviour of inflation itself (average inflation level, inflation persistency and the role of lagged inflation in shaping expectations). They then bring the model to the data and try to gauge whether the introduction of the new monetary policy framework has brought about any significant changes to these factors.

The core of the model is the Phillips curve of equation (7), in which – in the absence of short-term shocks to either wages or prices – changes in inflation are explained by labour market conditions, where the latter are defined as the difference between the current level of unemployment and an empirically identified equilibrium level, the NAIRU. Hence, at the heart of this model is the idea that the labour market is the scene where tensions between global demand and global supply take form and can thus be readily identified. Accordingly, wages play a key role in the transmission of inflationary pressures. As LAYARD et al. summarize it (1991, p. 8): "when buoyant demand reduces unemployment, inflationary pressure develops. Firms start bidding against each other for labour, and workers feel more confident in pressing wage claims […]; higher wage rises lead to higher price rises, leading to still higher wage rises, and so on".

1. The Approach

The idea of a link between labour market conditions and inflation has been recently resumed by Blanchard and Gali (2008). They construct a New Keynesian model with labour market frictions, real wage rigidities and staggered price settings and formally derive a relation between inflation and labour market tightness. Tighter labour market conditions increase hiring costs which, in turn, affect the marginal cost and thus inflation. Labour market tightness can be determined by both the level and the change in unemployment, depending on the fundamental features of a given labour market.

The NAIRU was born as an empirical concept. It is however, extremely difficult to obtain reliable and precise estimates of it. This point was made convincingly by Steiger, Stock and Watson, 1996 and 1997. As Chang (1997) points out, this might well be the symptom of the weak theoretical foundation of the concept. In the NAIRU spirit, when unemployment goes too low it will lead via higher wages to higher price inflation. The relation between inflation and unemployment, however, appears to be fairly unstable. Unemployment can be either positively or negatively correlated with inflation, depending on the nature of the shocks affecting the economy, including the shocks to inflation expectations. This raises the issues of the correct model specification. The second discussant deals with the question of inflation expectations. Let me thus focus on some other aspects. In KS two variables are meant to capture supply shocks: commodity prices expressed in Swiss francs and a series of dummy variables corresponding to changes in unemployment benefits regulation. A more detailed specification of shocks might be beneficial. First, a broader-defined variable such as the ratio of the imported CPI component over total CPI might be more appropriate to capture the full extent of relative price shocks. Galì and Lopez-Salido (2001), for instance, find evidence that prices of imported intermediate goods matter for both observed and expected inflation. A second important aspect is the role of labour supply shocks. With the implementation of the bilateral agreements with the EU, the Swiss labour market has undergone a major change with this respect (Miguet and Zanetti, 2008). Bentolila, Dolado and Jimeno (2008) find that the immigration boom of the second part of the 1990s has significantly shifted and flattened the Phillips curve in the case of Spain. A third factor that should be explicitly accounted for is productivity. Controlling for VAT effects is also something worth considering.

Even if we admit that the main drivers of inflation are demand shocks, it is still questionable whether the NAIRU concept is the right way to model this mechanism. On an empirical ground, several contributions have questioned the

relevance of wages in the transmission of inflationary pressures. Most of the available research shows little evidence of wages (GRANGER-) causing price inflation. MEHRA (2000) argues that while price inflation helps explain wage growth across various inflation regimes, wage changes help predict price inflation only during period of high and accelerating inflation. Similar results were found for Switzerland (ZANETTI, 2007): price inflation exerts a systematic impact on nominal wages whereas the explanatory power of wages with respect to price inflation has vanished since the beginning of the 1990s. Other factors, such as relative price shocks, clearly dominate wages in explaining the price inflation pattern.

2. Is Unemployment the Right Variable to Measure Labour Market Imbalances in Switzerland?

Figure 1 shows the official unemployment rate since 1975. It clearly appears that unemployment has become a sizeable phenomenon only after the early 90s' recession. Previous to that date, the Swiss unemployment rate was not only extremely low by international standards but also displayed little volatility. The break in this pattern is largely related to changes in the cyclical flexibility of labour supply in general and of foreign workers' supply in particular (OECD, 1996). Up to the 1990s employment contractions were matched by significant declines in labour supply, leaving the unemployment rate largely unaffected. This was a Swiss specificity and seems to suggest that the unemployment rate (or deviations from an estimated NAIRU) cannot deliver a consistent picture of labour market imbalances over time. The second time series in Figure 1 is an alternative and broader measure of labour market conditions developed within the Swiss national bank. It defines the labour market gap as the percentage difference between the actual and the potential number of hours worked per quarter. The gap can be influenced by a much larger number of factors than unemployment fluctuations, such as deviations from the potential participation rate or deviations from the optimal number of hours worked for the average worker. Within this concept, a cyclical decline in the participation rate, for instance, contributes to a labour market slack even if the unemployment rate remains constant. This measure clearly shows that movements in the unemployment rate grossly underestimated actual business cycle fluctuations on the Swiss labour market in the 1970s and 1980s.

Figure 1: Unemployment Rate vs. Labour Market Gap, 1975–2009

—— Labour market gap   —— Unemployment rate sa
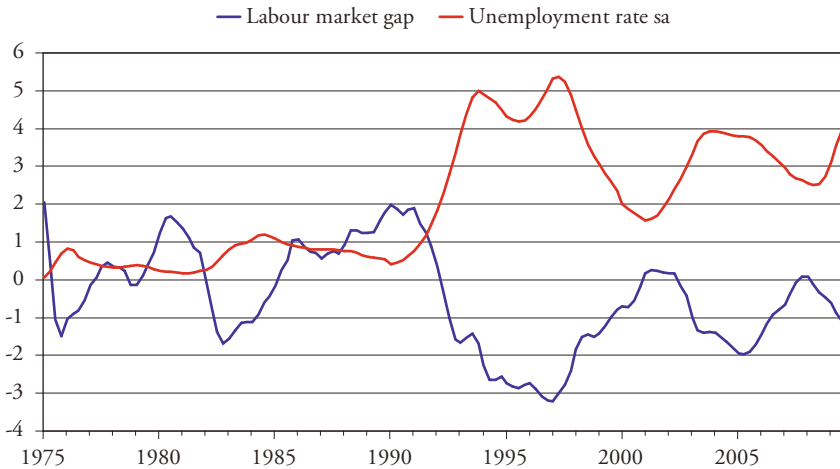
3. Inflation Persistency and the New Monetary Policy Framework

The strongest piece of evidence obtained by KS relates to inflation persistency. The latter appears to have declined after the introduction of the new monetary policy framework, as the sum of the lagged inflation parameters fell from 0.97 to 0.88 across sample periods. Can a robust causality link between the new monetary policy framework and this result be established? May 2000 is also the point in time when the Federal Statistical Office modified the way in which prices for clothes and footwear (CF) were measured, by taking sales in more explicit account. As it turned out the beginning of the sale season can vary quite substantially from one year to the next. Figure 2 shows how this irregular component has impacted the CF subindex in the CPI (Huwiler and Kaufmann, 2010).

   We estimate a simple AR(p) process using the official CPI data. The sum of the (statistically significant) autoregressive parameters is 0.98 for the period 1980–1999 and 0.89 for the period 2000–2009. Hence, the drop in the estimated sum of parameters is of the same order of magnitude as the one found by KS. Next we do the same exercise with the CPI time series excluding the CF component. The estimated sum of coefficients varies from 0.97 in the first sample period to 0.94 in the second sample period. This seems to suggest that although the drop in inflation persistency is simultaneous to the implementation of the

Figure 2: Sales and Inflation Persistency

— Clothes and Footwear Index, seasonally adjusted
— CF, saisonally adjusted, first differences
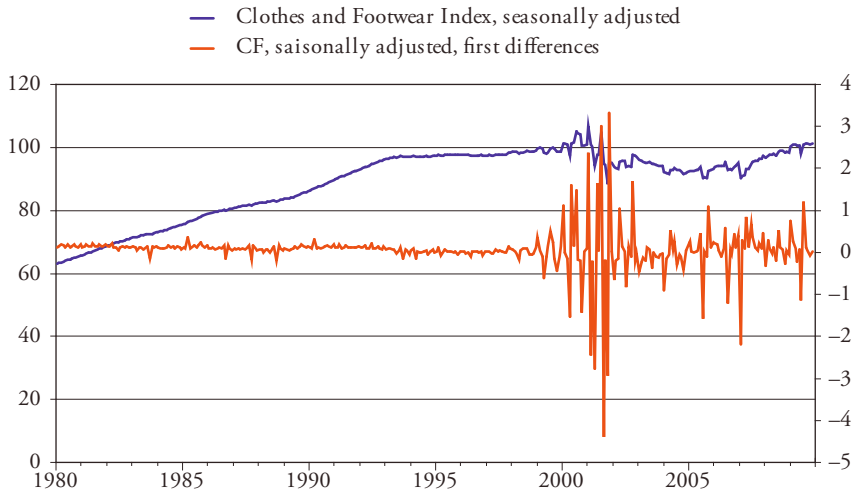
new monetary policy framework it is not necessarily a consequence of it. Elmer and Maag (2009) conduct a detailed analysis of Swiss inflation persistency at the disaggregated level. The come to the conclusion that a significant decline in inflation persistency is indeed observable. The break, however, is located in 1993. No further significant decline is observed in the period after 2000.

4. Conclusion

The issues addressed by the KS paper are crucial from the perspective of the monetary authorities. The authors provide first valuable results that cannot, however, be considered as conclusive evidence. Further investigations – possibly based on an extended data set – are certainly needed for a better understanding of the new monetary policy framework's impact on actual and expected inflation as well as on the link between various shocks, monetary policy and the labour market outcome.

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