

## Discussion

of

“Unemployment and Monetary Policy in Switzerland” by Peter Kugler  
and George Sheldon

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In December 1999, the Swiss National Bank (SNB) introduced a new monetary policy strategy involving a formal definition of “price stability”, the publication of inflation forecasts, and the announcement of a target range for the three-months swiss franc Libor (e.g., JORDAN, PEYTRIGNET and ROSSI, 2010). This new strategy was aimed at communicating more clearly the SNB’s actions, effectively anchoring the public’s inflation expectations, while maintaining some continuity with past policy.

The main objective of the paper by KUGLER and SHELDON (2010) (KS) is to characterize the effects of this change in monetary policy strategy on the Swiss labor market (i.e., on the degree of real-wage rigidity, the NAIRU) as well as the sacrifice ratio, the level and the persistence of inflation, using a Phillips relationship. This is a valuable and very ambitious exercise.

The paper sets up ambitious goals because it is a priori difficult to detect a clear effect of a policy change in 1999 on the inflation-unemployment relationship in Switzerland, as suggested by Figure 1. While the inflation-unemployment trade-off has remained remarkably stable since 1999, and below the tradeoff observed in the late 1980s and early 1990s, this tradeoff has stabilized at a low level of inflation at least since 1994. So while the new monetary policy strategy appears to have been successful at *maintaining* a low inflation-unemployment tradeoff, it is not clear from the figure that it contributed to a *change* in the inflation-unemployment relationship.

To characterize how the policy change might have affected the Swiss labor market and its relation to inflation dynamics, one thus needs to estimate a model that imposes sufficient restrictions on the processes determining inflation,  $\Pi_t$ , and unemployment,  $UR_t$ . KS do so by estimating the following two-equation system

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$$\Pi_t = a_0 - \frac{\lambda}{2}(UR_{t-1} - UR_{t-1}^*) + \sum_{i=1}^n (a_i \Pi_{t-i} + b_i \Pi_{c,t-i}) + \varepsilon_{1t} \quad (1)$$

$$UR_t = UR_t^* + \sum_{i=1}^m c_i (UR_{t-i} - UR_{t-i}^*) + \varepsilon_{2t}, \quad (2)$$

over the periods 1980–1999 and 2000–2009, where the “natural” rate of unemployment (or NAIRU),  $UR_t^*$ , is given by proxies of permanent factors affecting the labor market, divided by the parameter  $\lambda$ , and  $\Pi_{c,t}$  measures changes in commodity prices meant to represent transitory cost shocks. Equation (1) is a Phillips relationship and (2) is a law of motion for the unemployment rate. KS justify such equations by appealing to the so-called “Battle-of-the-markups” model, a static model involving an equation describing the wage-setting behavior of workers and an equation describing the price-setting behavior of firms.

## 1. Comments

I won’t discuss the authors’ finding that inflation persistence has decreased following the policy change, as this is addressed by the other discussant, but I will focus on the authors’ conclusion that the monetary policy change has resulted in (i) more wage flexibility, (ii) a lower sacrifice ratio, and (iii) has contributed to a lower NAIRU. I am skeptical of these results.

### *The Triple Duty of $\lambda$*

First, all three of these results rely on an increase in the estimate of a single parameter,  $\lambda$ , which in the “Battle-of-the-markups” model measures the degree to which workers (firms) are willing to back down from wage (price) demands in face of rising unemployment (falling sales). KS find that the estimated value of  $\lambda$  has increased (from 0.07 to 0.14) since 2000, though not significantly so. Imposing some structure on the data process is necessary to infer any effect of the policy change. However, having  $\lambda$  determine simultaneously wage flexibility, NAIRU and the sacrifice ratio is true only under very special assumptions. It would be nice to have independent evidence providing empirical support for each channel.

### *Inflation, Unemployment and the Role of Monetary Policy*

Second, a serious limitation of the approach taken is that the role of monetary policy is not explicitly specified. As a result, the framework considered does not allow the authors to clearly identify effects of changes in monetary policy strategy. Even if one took the increase in the estimate of  $\lambda$  at face value, there is no guarantee that it is *caused* by the change in monetary policy strategy. The coefficient  $\lambda$  may reflect for instance changes in the degree of competition on goods and labor markets or in the degree of wage or price rigidity for reasons entirely unrelated to the monetary policy strategy. So, identifying a change in  $\lambda$  after 1999 does not guarantee that one captures the effects of a change in the monetary policy regime, unless one imposes more structure on the model considered, or unless one brings more data (on wages, interest rates, measures of expectations, etc) to bear.

### *Policy Change and Expectations*

Third, given that a key aspect of the policy change has involved a more detailed and transparent communication of policy objectives and of policy actions to the public, it is reasonable to assume that the main effect of the policy change, if any, should appear on the determination of the public's expectations of future inflation and future interest rates. Unfortunately, the empirical model considered in KS assumes that inflation expectations depend exclusively on past observations of inflation. This has the undesirable implication of excluding any role for the central bank to effectively manage the public's expectations. In fact, under such backward-looking expectations, none of the SNB's inflation published forecasts or communications should have any effect on the public's inflation expectations, as it is assumed that the public revises inflation expectations only when *observed* past inflation has changed. In such a world, then, there is no reason to expect that a change in policy geared toward improved communication and detailed explanation of the SNB's actions should lead to any change in the economy and hence on the labor market. Hence, the empirical model does not capture the conventional effect that central bank's communication and transparency has in affecting the public's expectations.

To account for the effects of policy on expectations formation, one could alternatively estimate a structural model involving a Phillips relationship of the kind proposed in popular New Keynesian model (e.g., Clarida, Gali and Gertler, 1999; Woodford, 2003). Those models have the advantage of involving expected *future* inflation in the Phillips relationship, so that the management of the public's

inflation expectations can play an important role in stabilizing current inflation. While the typical New Keynesian Phillips curve involves a fundamentally latent notion of the output gap, recent work by Gali (2009) proposes a re-interpretation of this model that yields a useful structural relationship between wage inflation, the unemployment gap and expected future wage inflation.

### *Monetary Policy and the Unemployment Gap*

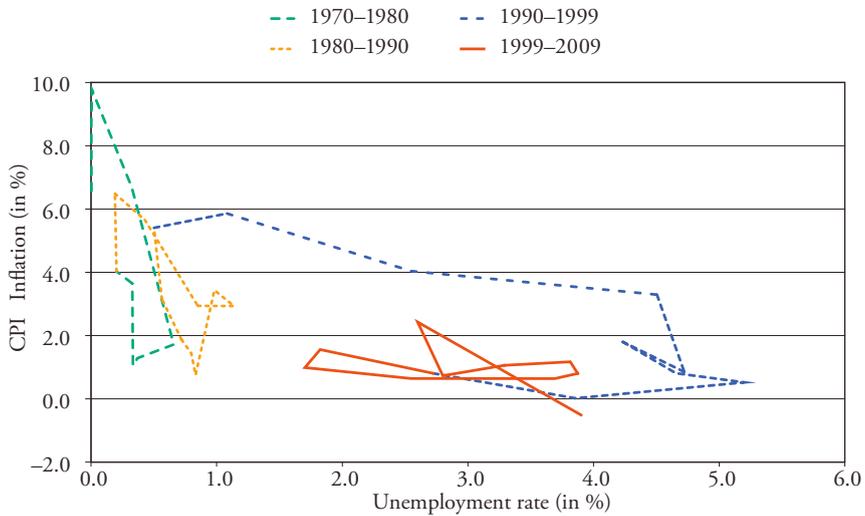
Fourth, by estimating (2), KS implicitly assume that the unemployment gap ( $UR_t - UR_t^*$ ) follows an autoregressive process. While they don't discuss this process, it would be interesting to analyze it, as it may be affected by the monetary policy regime. In fact, one would expect that by committing more to inflation stabilization the central bank would tend to offset more systematically demand-driven (and efficient-supply-driven) fluctuations in  $UR_t - UR_t^*$ . It would thus be interesting to know to what extent this process has changed, and also to impose more structure on it, in order to identify effects of policy.

## **2. Conclusion**

Analyzing the effects of the SNB's new monetary policy strategy on the Swiss labor market is a very interesting and important issue. However there are many reasons, in my view, to expect such policy change to have little impact on the labor market. First, relatively large changes in monetary policy regimes are usually thought of causing little change in the NAIRU, both on theoretical and empirical grounds. Second, the change in the SNB's strategy, did not try to establish a clear break from the past policy. While important, the policy change has focused more on improving communication, clarity and consistency, while maintaining continuity in the commitment to keeping low and stable inflation. Therefore, rather than emphasizing that the estimated real wage rigidity, the sacrifice ratio, and the NAIRU have all fallen in Switzerland since the adoption of the new policy regime, I would have emphasized that the analysis finds no significant change.

While I am skeptical that the SNB's new strategy has affected the NAIRU in Switzerland, I expect it to have altered the way inflation expectations are being formed, and hence to have beneficial effects on anchoring inflation, by providing a more transparent and internally consistent explanation of policy actions.

Figure 1: Inflation-Unemployment Trade-off in Switzerland, 1970–2009



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