SWEDISH ECONOMIC POLICY REVIEW 2 (1995) 213-216

Comment on Gunnar Jonsson: Institutions and Macroeconomic Outcomes – The Empirical Evidence

Anders Vredin*

If a graph were drawn to represent the development of the price level during the last century, the following picture would emerge for all OECD countries: the price level was stable before World War I (i.e., during the gold standard) but has virtually exploded after World War II. The inflation model of Barro and Gordon (1983) suggests that the high post-war inflation is due to higher employment ambitions (higher $\hat{x}$ in terms of Gunnar Jonsson's model) or stronger preferences for employment in relation to price stability (higher λ), or both. I think this interpretation is correct. In my view, the same theory can explain why there has been a downward trend in inflation since 1980. I believe that employment ambitions have been lowered, both absolutely and in relation to the price stability target. Note, however, that if there has been a decline in the natural rate of employment during the last decade (lower x^*), this would, *ceteris paribus*, lead to *higher* inflation according to the Barro–Gordon model. Changes in the policymakers' objective functions thus appear to be a necessary part of an explanation of our inflation history.

Given government preferences, how important are institutions? Rogoff (1985) has suggested that the tendency to delegate monetary policy to "conservative and independent central bankers" can be understood as an attempt to lower the inflation bias which plagues governments that care about employment. This, in itself, is a *positive* theory of policy-making, just like the Barro–Gordon model is a positive theory of inflation. However, given that the government's objective function looks like the one

* *The discussant is associate professor at the Stockholm School of Economics and a member of the Economic Council of Sweden.*

considered by Jonsson, Rogoff's analysis leads to the conclusion that inflation policy should be delegated to an agent with less strong preferences for employment than the government. Formally, if $\tilde{\lambda}$ denotes the relative weight of unemployment as compared to inflation in the agent's preference (disutility) function, it is optimal to appoint an agent with a $\tilde{\lambda}$ such that $0 < \lambda - \tilde{\lambda} < \infty$.

Against this background, the gold standard regime may be viewed as an optimal institution, given the generally strong preferences for price stability that characterized the time around the turn of the century. After World War II, Keynesian ideas led to higher employment ambitions. Since government preferences have differed among countries, only (managed) floating or "fixed-but-adjustable" exchange rate regimes have been feasible. Lacking a common international monetary policy, individual countries have designed their own monetary institutions. Some central banks are "more independent" than others.

An important question, which the theoretical literature has not answered, concerns the mechanisms that make certain institutions credible. In Rogoff's analysis, for instance, it is assumed that there is no commitment technology that can make the ideal rule – zero inflation on average – credible. But it is assumed that monetary policy can be credibly delegated to an independent central bank. There is thus no theoretical explanation for why some commitments are feasible – such as a contract with the central bank, or with other governments in the case of pegged exchange rates – while others are not. Empirical investigations of the inflation bias associated with various institutions cannot provide an answer to this question, but may indicate where we should search for the answer. An important problem which empirical studies face is how to distinguish between the relative importance of government preferences and institutions.

Jonsson finds that inflation differences (i.e., the deviations from the common trends described above) across 18 OECD countries and over the period 1961–1989 are significantly correlated with some institutional variables. According to the cross-country regressions reported in Table 1, inflation rose less during the 1970s in countries with more independent central banks, and it fell more during the 1980s in countries where right-wing parties had stronger political power. The correlations between inflation and the institutional variables are also present in the pooled regressions reported in Table 2, where it is also seen that inflation was significantly lower during the Bretton Woods regime than afterwards.

I think that Jonsson has made a contribution to the empirical literature on institutions and macroeconomics. There has been some scepticism as to whether the simple correlations between inflation and various institutional variables, measuring e.g. central bank independence, observed in earlier research would survive the inclusion of other potential explanations for inflation. Jonsson shows that they do.

Nevertheless, I am critical of the conclusions Jonsson seems to draw from his findings. He concludes that his results indicate how important institutional aspects are for inflation. However, his analysis does not allow for separation between the inflationary consequences of changes in the target rate of employment ($\hat{x}$), in preferences for employment in relation to price stability (λ) and in the design of institutions ($\lambda - \tilde{\lambda}$). I interpret Jonsson as searching for the effects of the last of these three factors, while maintaining the assumption that the first two factors have been constant. As noted above, such an assumption can hardly be justified by theoretical or *à priori* arguments. Hence, we do not know whether German inflation has been relatively low primarily because German governments have had relatively low employment ambitions or because the Bundesbank has been independent from the governments. My own belief is that central bank independence does not *cause* low inflation, just as the long period of price stability around the turn of the century was not *caused* by the gold standard regime.

Jonsson argues further that "the empirical results are by and large consistent with the models on credibility issues in monetary policy". This is hardly controversial, insofar as the models' message is that "a policymaker who is more averse against inflation creates less inflation". Such a policymaker, however, is regarded as *identical* with a "conservative and independent central banker" in Rogoff's sense in the models, and a similar *definition* of a "fixed exchange rate regime" is made in the paper by Giavazzi and Pagano (1988). (I suspect that this is also the way the theoretical models define a "right-wing" government.) These definitions have obviously been chosen to make the theories fit some simple stylised facts. But then the assertion that the theories are consistent with the facts is almost vacuous.

On some points the facts do not square with the theory. It is interesting – but puzzling – that this commonly occurs when unemployment is considered. Table 2 suggests that there is a negative correlation between inflation and the natural rate of unemployment. Although this appears to reflect the experiences from the 1980s, it is not consistent with Jonsson's theoretical framework. Nor does the theory offer any suggestion as to why unemployment experiences have been so different between the Bretton Woods and EMS regimes (cf. Table 4). Finally, Jonsson's theoretical framework predicts a positive relation between the degree of central bank independence and the variance of (un)employment, but no such pattern appears in the data (cf. Table 5). Since I do not view Jonsson's regressions as strict tests of the theoretical framework, I do not regard these puzzles as rejections of the theory. (Gunnar Jonsson and I seem to agree on this point.) In principle, differences in e.g. the degree of central bank independence could have no effects on the variance of (un)employment, if the differences were based on optimal contracts in the sense of Persson and Tabellini (1993) and Walsh (1995). I regard this explanation as unlikely, but it cannot be ruled out. It should also be emphasised that institutions other than those considered by Jonsson should also be examined in order to gain a good understanding of unemployment fluctuations. On this point, the reader is referred to the other contributions to this volume.

To summarise, Gunnar Jonsson has made a careful and useful investigation of the relation between institutions and macroeconomic performance. But I do not think that his results give any strong support for the chosen theoretical framework. In particular, I do not believe that the study provides any empirical evidence for the – very reasonable – idea that institutions matter *over and above* government preferences.

References

Barro, R.J. and D.B. Gordon (1983), A Positive Theory of Monetary Policy in a Natural Rate Model, Journal of Political Economy 91, 589–610.

Giavazzi, F. and M. Pagano (1988), The Advantage of Tying One's Hands: EMS Discipline and Central Bank Credibility, European Economic Review 32, 1055–1082.

Persson, T. and G. Tabellini (1993), Designing Institutions for Monetary Stability, Carnegie-Rochester Conference Series on Public Policy 39, 53–84.

Rogoff, K. (1985), The Optimal Degree of Commitment to an Intermediate Monetary Target, Quarterly Journal of Economics 100, 1169–1189.

Walsh, C. (1995), Optimal Contacts for Central Bankers, American Economic Review 85, 150–167.