Professor Klein has written a thoroughly appealing paper to start off our discussion. The paper is lucid and to the point. In a few pages, Klein summarizes a rich view of the stagflation process and gives us a forecast of the next decade based on that view. Klein's views are particularly cogent when compared to the welter of interpretations that are now coming forward to explain our economic malaise. If Klein's views may be termed eclectic Keynesianism, the major competitor in the public debate might be called "Pogoism," for holding, like the cartoon character, that "we have met the enemy and they is us." Milton Friedman, Martin Feldstein, Robert Lucas and President Reagan all view our economic failings as the result of our own economic policies, rather than of the external shocks and exogenous demographic changes that Klein emphasizes. A third, and more pernicious, view holds that our malaise results from the unfair practices of other countries, particularly Japan. Paul Krugman will make some level-headed remarks about this view in a later paper.

I agree with Klein's assessment that external shocks, demographics, and plain bad luck have had more to do with the stagflation experience than have over-expansionary Keynesian policies, to which the Pogoists point. But since Klein pretty much sticks to his own position without comparing it to other views, we don't really get a good feeling for the evidence one way or the other. In my comments, I will draw on some cross-country data that supports, in broad outline, the position in Klein's paper. Using that evidence, I'll also try to move one step further, to suggest an area where government support of structural change might contribute to enhanced macroeconomic stability.

Since Klein's views are so aptly summarized, I can skip directly to

the competing views of stagflation. In the influential interpretations of Feldstein and Friedman, mistakes in demand management alone account for much of the stagflation in the 1970s. In their view, policymakers pursued expansionary policies out of the mistaken belief in a downward sloping long-run Phillips curve. Higher inflation rather than reduced unemployment resulted. Because of institutional rigidities, such as unindexed tax systems, and because of uncertainties surrounding relative prices in a highly inflationary environment, the argument goes, higher inflation actually reduced potential output growth and led to secular stagnation. In this interpretation, reduced inflation would lead to a higher growth, so that a stable low rate of money growth is seen as a major long-run stimulative measure.

Both Friedman and Feldstein recognize explicitly that the simultaneous increase in inflation and unemployment might result from independent third factors, e.g., the oil shocks as Klein suggests, but both play down that possibility. Feldstein could have had Klein's paper in hand when he wrote:

In trying to identify more basic causes of inflation, it has been common for nonmonetarists to emphasize the series of particular events that were associated with spurts of inflation during the past two decades. There is no doubt that if these events had not occurred or had occurred differently, the path of inflation would also have evolved in a different way. Nevertheless, it would be wrong to put too much emphasis on these specific events. It was not events but *ideas* that propelled the increasing rate of inflation. The upward drift of the inflation rate was the result of a fundamental set of beliefs about the economy and about macroeconomic policy that were shared by economists and policy officials during the past two decades. (Feldstein, 1982)

Lucas added luster to this view by showing how alleged instability in the equations of large macroeconomic models could be explained by the private sector's reactions to the "misguided" macroeconomic policies. His models also contained the comforting thought, explicitly argued by Sargent (1982), that a policy of disinflation could be virtually costless, as long as it was convincingly applied and widely advertised. According to Lucas and Sargent, cost calculations based on *historical* experience were next to useless because of the likelihood of instability in wage and price behavior in response to policy shifts.

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Some evidence

There is now a wide array of evidence in support of Klein's eclectic approach, and against the Friedman-Feldstein-Lucas critique. The recent U.S. data directly belies the more radical assumptions of the Lucas-Sargent rational expectations models. Not only has the disinflation been costly, but the costs have turned out to be almost exactly what a mainstream Phillips-curve approach would have predicted! Wage-price dynamics display great stability in recent years.¹

Other aspects of the critique are also hard to maintain in the U.S. data. As Bosworth's paper will demonstrate, the interactions of inflation and unindexed taxes do not explain much if any of the growth slowdown in the U.S.; and indeed, that hypothesis raises more questions than it answers. For example, pre-tax rates of return to capital have declined, not risen, as the capital shortage hypothesis would hold. Also, Stanley Fischer has largely debunked Milton Friedman's assertion that high inflation has led to greater variability of prices and, thereby, to reduced growth. Fischer shows that the correlation of inflation and price variability is mostly spurious, since the oil shocks of 1974 and 1979 account for almost all of the increased price variability in U.S. data, and for much of the rise in inflation in the 1970s. Once the oil price shocks are included in a regression of GNP on price variability, the latter term loses its explanatory power.

In international data, Klein's position is similarly vindicated. The Friedman-Feldstein view suggests that inflation control is the key to avoiding stagnation, but the international experience refutes this claim. All 24 countries in the OECD experienced a slowdown in real GNP growth after 1973, and the magnitude of that slowdown is not clearly related to any acceleration in inflation. Switzerland, for example, experienced a huge slowdown in growth with no rise in average inflation after 1973. As a simple check of the inflation-stagnation hypothesis, I have compared, for all OECD countries, the rise in inflation after 1973 with the slowdown in growth after 1973, find-

^{1.} Gordon (1983) estimates a quarterly Phillips curve equation by regressing current inflation on a distributed lag of past inflation, a demographically weighted unemployment rate, and supply variables (e.g., food and oil prices). The equation is estimated through the end of 1980. He finds the following out-of-sample behavior:

	Four quarters	Four quarters
	of 1981	of 1982
Actual inflation	8.5	4.9
Predicted inflation	7.5	5.1
Equation error	1.0	-0.2

ing that high-inflation countries did no worse than low-inflation countries in growth performance.²

FIGURE 1. Slowdown in GNP growth.

		Larger than Median	Less than Median
Rise in Inflation	Larger than Median	5	7
	Less than Median	6	6

In fact, controlling for country characteristics, I have found a clear Phillips curve in the data: slower growth on a cross-country basis was necessary to achieve a larger slowdown in inflation.

Finally, there is little support for the view that **variability** in money growth has been particularly harmful. In a recent study, Milton Friedman (1983) has presented the following standard deviations of quarterly money growth for 1973-1980 (M1, at annual rates):

Canada	7.86
France	4.76
Germany	6.47
Italy	8.88
Japan	7.73
Switzerland	10.26
United Kingdom	10.09
United States (M1/A)	2.86

There is no obvious ranking between macroeconomic success and variability of money growth. The U.S. stands as the outstanding case of monetary stability by Friedman's measure, but a mediocre performer on most macroeconomic measures. In the low-inflation countries of Germany, Japan, and Switzerland, the monetary authorities understand that price stability may require accommodation of money demand shocks rather than a simplistic adherence to a money growth rule.

^{2.} The rise in inflation is measured as the average annual growth of the consumer price index during 1973-1981 ($\ref{P73.81}$), minus the rate for 1960-73 ($\ref{P60-73}$). The GNP slowdown is measured as $\ref{Y60-73} - \ref{Y73-81}$, where Y is real GNP.

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Implications of the cross-country experience

Though I endorse **Klein's** basic position that common worldwide shocks were decisive for the 1970s, I do not endorse his analysis at every point. His view, for instance, that the energy shocks explain the bulk of the productivity slowdown has found little support in formal econometric analysis.

Perhaps more important, his diagnosis of stagflation suggests little in the way of treatment. While he correctly counsels prudence in macroeconomic management, and offers some hope that inflation expectations and demographic changes are now moving in our favor, he offers few structural remedies for the continuing global slump. It is in this area that the cross-country experience offers particular guidance.

At a fundamental level, successful macroeconomic performance in the past decade has required a *social consensus* on sharing the burdens of slower growth and higher real import costs. In countries with a tradition of consensual wage bargaining and low strike activity, such as Austria, Norway, and Sweden, the social consensus has been most easily achieved and stagflation has been modest, if present at all. In economies with fractious labor markets, such as Australia, France, Italy, and the U.K., the absence of consensus has led to particularly virulent stagflation. Using objective indicators of wage-bargaining relations, I have shown in a recent study (Sachs, 1983) that consensual systems (often called "corporatist" systems) outperformed the others on key macroeconomic variables. Figure 2 is reproduced from that study. Macroeconomic deterioration is measured as the post-'73 rise in inflation plus the post-'73 slowdown in growth (the sum is called the change in the "misery index," ΔMI).³ We can see in the figure a clear link between low corporatism and high "misery" on a cross-national basis.4

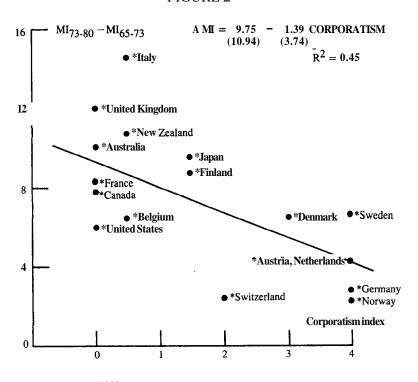
$$\Delta MI = 6.43 + 0.93 \text{ NWR} - 1.53 \text{ CORPORATISM } \overline{R}^2 = 0.64$$
(4.83) (2.97) (4.99)

^{3.} $\Delta MI = (\dot{P}_{73-81} - \dot{P}_{60-73}) + (\dot{Y}_{60-73} - (\dot{Y}_{73-81}).$

^{4.} There is a second structural characteristic of great importance, on which the U.S. ranks very high. Countries like the U.S., with low indexation and long-term wage agreements, were able to achieve necessary real-wage moderation more easily than others. Using objective indicators of contract length and indexation, I have created an index of "nominal wage rigidity" (NWR). Both the corporatism and NWR indices are important in explaining AMI:

Policies to encourage a national consensus on distributional norms might therefore offer a structural change of immense importance. The German "concerted action" policies, or Austrian tripartite bargaining, seem like promising models on which to build a sounder macroeconomic structure. I hope that we turn to these possibilities for positive structural change later in our discussion.

FIGURE 2



Source: Sachs (1983), p. 17

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