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The Way Back to Stability and Growth in the Global Economy
The Mayekawa Lecture

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Presented at the 2008 International Conference:
Frontiers in Monetary Theory and Policy
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It is an honor to be invited to give the Inaugural Mayekawa Lecture and it is a special pleasure to return to Tokyo and the Bank of Japan to do so. I would like to begin the lecture by taking note of Governor Mayekawa's comprehensive approach to economic research and public policy problems during the 1970s and 1980s. Then, using a similar approach, I will consider some of the difficulties that researchers and policy makers face today.

A Comprehensive Approach to Research and Policy

The best way for me to describe the influential approach to research and policy that I have found to be characteristic of Governor Mayakawa's contributions is through several examples or stories about his work at the Bank of Japan and afterwards. I start with monetary policy in the 1970s.

Lessons Learned about Monetary Policy in Practice

Haruo Mayekawa served as Deputy Governor of the Bank of Japan from 1974 to 1979 and as Governor from 1979 to 1984. The late 1970s and early 1980s were, of

course, very challenging times for economic policymakers throughout the world. In many countries, the Great Inflation was still raging and the Great Moderation was at best a glitter of hope in the minds, or the computers, of monetary scholars.

But important lessons for the future were being learned by observing the excellent performance by the Bank of Japan and Governor Mayekawa during this period. By credibly committing to a non-inflationary monetary policy from the mid-1970s on—quickly learning from the experience of the first oil shock of the early 1970s—the Bank of Japan was able to weather the oil shock of the late 1970s and keep it from passing through to the overall inflation rate, unlike in the United States and most European economies.

I focused on this difference at the Bank of Japan's Third International Conference in 1987—the first one I attended (see Taylor (1988)). Several years later, in the 1991 Economic Report of the President, the U.S. Council of Economic Advisers, of which I was a Member at the time, used the success of Japan in contrast with the United States during this period to show how credibly sticking to a low inflation policy would mitigate the impact of the oil shock following the Iraqi invasion of Kuwait, much more effectively than an accommodative policy would. The comparison was made with the help of two charts which I reproduce here. The main difference between the upper chart, which shows the United States, and the lower chart, which shows Japan, is that during the period of the late 1970s and early 1980s (1977Q1 to 1980Q1) there was little or no increase in inflation in Japan whereas there was a large increase in inflation in the United States. The lesson learned was very clear, and by the late 1990s it was being applied elsewhere including in the United States.

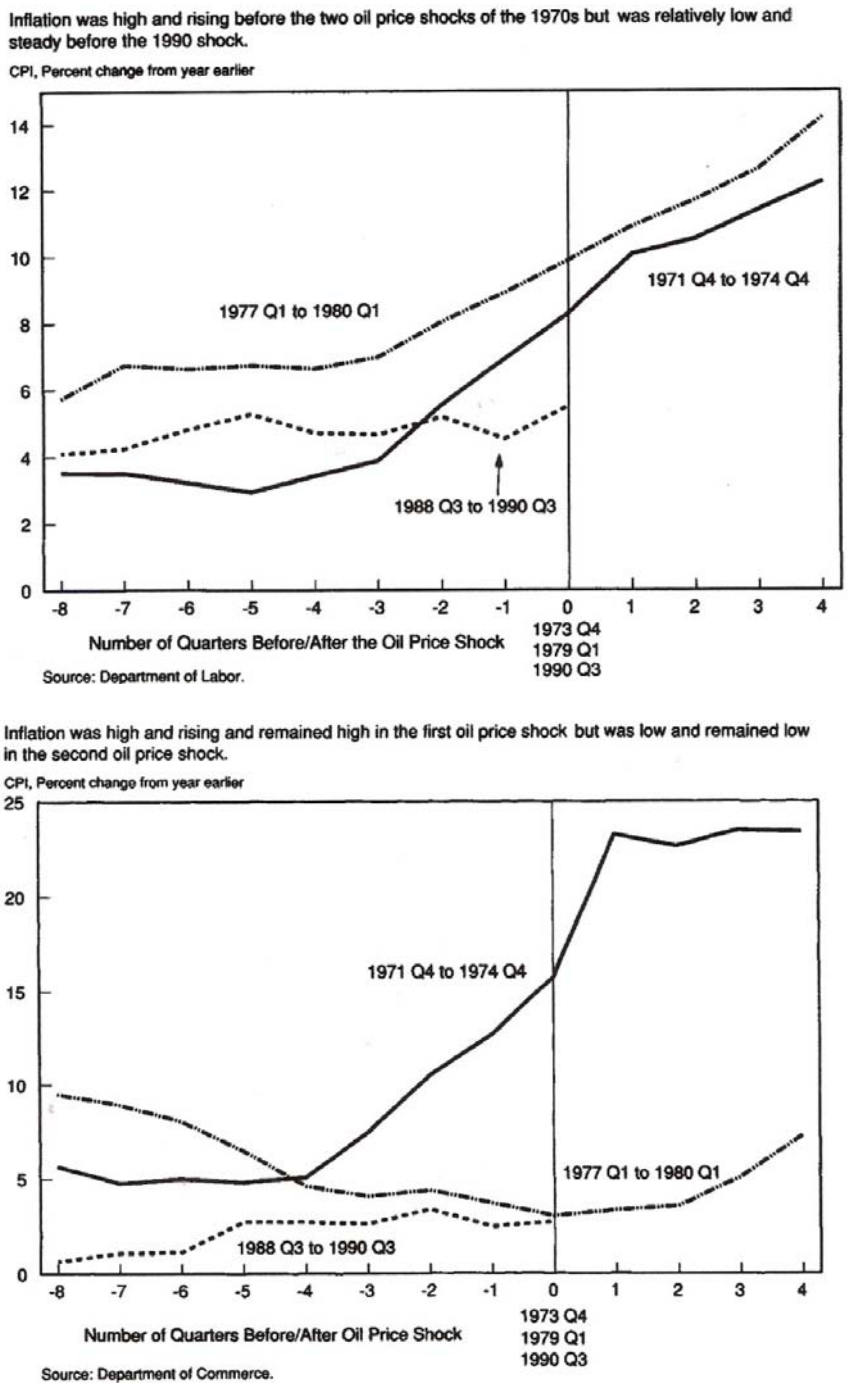

Figure 1. The impact on inflation of the oil shock of the late 1970s and early 1980s in Japan (lower chart) was much lower than and the United States (upper chart). The two charts originally appeared in the 1991 *Economic Report of the President*.

Research and the Creation of the Institute of Monetary and Economic Studies

We also have to thank Governor Mayekawa for his support of research and the Institute for Monetary and Economic Studies, which was created more than a quarter century ago in 1982 at his suggestion. It is worth recalling his words at the inauguration of the Institute for I believe the principles he established for a basic research department at a central bank have influenced researchers and visitors to the Institute ever since: "Basic researches can be compared to the roots of a tree. They may not enjoy a high profile but are very important. A clear theoretical understanding of the financial and economic mechanism is the fundamental basis for understanding the essential forces behind each phenomenon. This will help us recognize what type of side-effects myopic policy actions may entail in the long run." Source: Okina (1998).

Again the lesson is clear: Good policy requires good theoretical research. I know that I have benefited from the Institute, as a Visiting Scholar in the spring and summer of 1987 when Yoshio Suzuki was Director, and at many of the international conferences since then. So have many other monetary economists.

The Mayekawa Commission

Governor Mayekawa also had an important influence beyond monetary policy and central banking. In 1986, at a time when protectionist pressures were building abroad, Prime Minister Yasuhiro Nakasone established an *Advisory Group on Economic Structural Adjustment for International Harmony*. Its main charge was to recommend ways to reduce the Japanese current account surplus, which was a source of the tension. He chose Mayekawa, who by then had retired as Governor of the Bank of Japan, as the

Chairman of the advisory group, and from that time forward the group was called the "Mayekawa Commission" and the initial report and its follow-up were called the "Mayekawa Report."

While the Mayekawa Report was aimed at reducing the current account surplus, it recommended sensible market oriented economic policies rather than new restrictions. It emphasized "Freedom in principle, restrictions only as exceptions." It suggested that imports to Japan could be increased through deregulation of the retail and other sectors. It was internationalist rather than isolationist or protectionist, stating as a central purpose to "orient the [Japanese] economy toward international harmony."

Several years after the Mayekawa report was released the United States joined with Japan in looking for ways to help implement the recommendations. And in order to reduce protectionist sentiments in the United States, a series of talks, called the structural impediments initiative talks, was established jointly by Japan and the United States government. Based on the economic idea that the current account deficit is due to a gap between investment and saving, the initiative stressed increasing saving in the United States as well as investment in Japan. Both Japan and the United States would thereby try to contribute to the effort. As a member of the U.S. side in these talks I can say that the Mayekawa Report was consulted and referenced often. Like the Mayekawa Report, the suggested policies were ones that made economic sense whether or not the current account was a problem. In my view the report and such structurally oriented initiatives did help to reduce protectionist pressures.

Recommending a Way Back to Growth in the World Economy

For my fourth example of Governor Mayekawa's influence, I want to refer to a remarkable speech he gave twenty five years ago in 1983, the year of the First International Conference at the Bank of Japan where Milton Friedman (1983) and James Tobin (1983) both gave keynote speeches. The Mayekawa speech was published along with the speeches by Friedman and Tobin in the first issue of the Institute's journal, *Monetary and Economic Studies*.

The speech was given at a watershed time for much of the global economy. Indeed the kinds of policy ideas in his speech are, in my view, the reason it was a watershed. We know now that 1983 (it is hard to pinpoint it exactly, maybe it was 1982 or 1984) was the beginning of what monetary scholars call the Great Moderation or the Long Boom. For at least a decade and a half before the Great Moderation started, the world economy was beset with difficulties: high and variable inflation, frequent recessions, financial instability, high and rising energy prices. These were the problems Mayekawa addressed in his speech. He recognized the inter-relationship between these problems and boldly took them all on at the same time. The title of the speech, "The Way Back to the Growth in the World Economy," conveyed his diagnosis: Economic policy had gotten off track in the 1960s in many countries; this had lead to deteriorating economic performance; the Great Inflation years were the result. In essence his recommendation was to get back on track, by going back to basics.

Mayekawa began this speech by emphasizing the importance of understanding the causes of the economic difficulties before recommending policies to solve them—the same theme he stressed in his inaugural address to the Institute for Monetary and

Economic Studies, which I referred to earlier. “Whether or not we can succeed in overcoming difficulties largely depends on our capacity to properly assess fundamental causes for the emergence of the difficulties and on our resolve to pursue appropriate policy options to eliminate them” he said. He emphasized that we had to take an international approach: “In working out the strategy to overcome the present economic difficulties… [there] is the pressing need for individual countries to design their policies in an international perspective….No country…should and can maintain policies benefiting only its own people at the sacrifice of people in other countries in this interdependent world.”

One of his main specific recommendations was to focus monetary policy on achieving price stability: “It is my considered opinion that the best way to master the present difficulties is for all countries around the world to take a global viewpoint, aiming at the objective of sustained non-inflationary growth.” Regarding exchange rates, he thought that achieving price stability would help reduce commodity price volatility and exchange rate volatility, but that from time to time exchange rates would drift away from purchasing power parity and that intervention might then be appropriate. He deemphasized countercyclical monetary policy and discretionary fiscal policy, saying “The present difficult situation in the world economy cannot be overcome with the expansionary demand management policy…” Regarding fiscal policy specifically he argued that “There is now little room for the use of fiscal policy to support demand.” And that “The reduction of the size of the public sector and of budget deficits constitutes one of the most pressing tasks in many developed and developing countries.” On the microeconomic side he emphasized deregulation and market flexibility, saying that we

need to "promote smooth adjustment on the basis of the market mechanism" especially to deal with rising energy costs. He argued for free international trade.

Today's Economic Difficulties and the Need for a Comprehensive Approach

The world economy is again faced with numerous economic difficulties. While as researchers we frequently approach these problems separately, I believe they are closely related and policy makers must recognize this interaction as they create, negotiate, and implement solutions. The problems are also inherently global, cutting across sovereign boundaries. For all these reasons, I believe that a bold broad "Mayekawan approach" is needed today.

Although one must be careful when making generalizations, recognizing important differences among countries, there is no doubt about the following:

- Global inflation is high and rising.
- Financial instability and risks are elevated.
- Energy, food, and many other commodity prices are at record highs in real terms.
- Current account imbalances remain high even though they are off their highs.
- Exchange rates policies are globally inconsistent, which, along with high energy prices, has led to accumulations of financial wealth by sovereign governments.
- Protectionist and isolationist sentiments are on the rise.

To be sure, there is a very important difference between the economic situation today and that of the late 1970s/early 1980s. From the vantage point of 2008 we can look back and see remarkably strong global growth and stability for at least a decade in most parts of the world and for even longer in the United States and most developed economies. In contrast, from the vantage point of the early 1980s, economic performance had been dismal for over a decade and a half with high inflation and frequent deep recessions. Today's economic problems—at least the manifestations of them which I just

listed—have been with us for a comparatively short time, but that does not mean they will be any easier to analyze and solve. Moreover, only one of the six I mention here—inflation—is currently less severe than in the 1970s.

Let me now discuss several of these problems, illustrating some of the important connections with the others.

Global Inflation

There is mounting evidence that inflation is accelerating in many countries. According a recent compilation by analysts at JPMorgan Chase (*Global Data Watch*, 23 May 2008), the CPI in emerging market countries averaged nearly 8 percent over the 12 months ending this April, and has risen by 3 percentage points in the past year. In developed countries, inflation averaged 4 percent over the same time period. This implies a global average of about 6 percent. As the first deputy managing director of the International Monetary Fund, John Lipsky (2008) recently warned: "To put the issue starkly, inflation risks have reemerged as a global challenge following a long absence."

What is the cause of this reemergence? Since inflation is ultimately a monetary phenomenon, the place to look for an answer is monetary policy. A key principle of good monetary policy is that interest rates should increase by more than the increase in inflation, after appropriate smoothing out of clearly temporary price changes. This will keep inflation close to target by letting the real interest rate rise when inflation rises and letting the real interest rate fall when inflation falls. See Woodford (2001).

However, during the past year, as global inflation has risen, global short term interest rates targets set by central banks have not increased on average by as much as

inflation; indeed the global average of these interest rate targets has actually fallen since last summer. Again using the compilations of JPMorgan Chase, the GDP-weighted average central bank interest rate fell by 1 percentage point during the past year. Much of this decline is due to the United States, where the federal funds rate has declined by 3.25 percentage points. Excluding the cuts in the federal funds rate, the global average was effectively unchanged (declining by 3 basis points), but in the face of rising inflation, this is counter to key monetary principles. In emerging market countries as a whole interest rates increased by 137 basis points, but this is far less than the roughly 3 percentage point increase in global inflation in these countries.

Why, by this global measure, do central banks seem to be so far behind the curve? One reason might be that they are reacting to reductions in real GDP, or an opening of the GDP gap. However, as I discuss later, such GDP declines, even when one uses forecasts, do not appear to be enough to explain the deviation of interest rates from more appropriate levels based on inflation and GDP. Another more promising explanation is that central banks are taking exchange rates into account when setting interest rates. See Edwards (2005). Indeed, central banks sometimes admit that the prevailing interest rate around the world affects their decisions. Letting their interest rate rise above a prevailing but declining global interest rate would cause their currency to appreciate, something that the central bank might want to avoid because of the effect on exports and GDP growth. In the case where a central bank follows a dollar exchange rate peg, central bank's interest rate must, of course, be cut along with a decline in the federal funds rate, which causes easier monetary policy in the United States to be exported abroad automatically. See Carlozzi and Taylor (1985) for model simulations of this phenomenon. But even

central bankers with flexible exchange rate policies watch the federal funds rate and its futures carefully when making policy decisions.

In a presentation I recently gave at the Bank of France (Taylor (2008b)), I noted the empirical relationship between Eurozone interest rates and U.S. interest rates. I examined the deviation of the overnight interest rate target for the European Central Bank from a simple guideline for that interest rate—the Taylor rule—which depends on the inflation rate and the gap between real GDP and its potential level. An estimated linear relationship with that deviation on the left hand side has a significant coefficient on the federal funds rate for the period from 2000-2006. I have found similar strong foreign interest rate effects for other central banks.

Hence, when faced with declining interest rates abroad, say because of a cut in the federal funds rate, there is a danger that central banks will move off course due to concerns about the exchange rate. In doing so central banks will be reducing interest rates below levels needed for price stability, which could be a factor in the recent resurgence of global inflation.

How do these results square with the result (for example, Taylor (1985)) that there is little need for direct interest rate coordination between central banks when exchange rates are flexible? The reason is that in practice central banks take exchange rates into account in their interest rate responses. Clearly this would be inflationary in the current environment, and thereby is part of the explanation for the increased global inflation today.

In his recent assessment, Lipsky (2008) reaches the same conclusion: “The easing in US monetary policy also has tended to generate an easing in monetary conditions in

countries with currencies closely linked to the dollar. In some economies in Asia and the Middle East, rising commodity prices have exacerbated general inflation pressures, while an easing of conditions has made monetary policy overly-accommodative.

Financial Instability and Risks

Much has already been written about the recent crisis in the global financial markets since last summer (see Cecchetti (2008)), so there is little need here to review the causes, which trace to low interest rates in the period from 2003 to 2005, the boom in housing prices, and the excessive lending and underestimation of risks by many financial institutions and investors. There is no doubt that the resulting instability and risks are highly unusual as has been documented by an examination of money market spreads by Taylor and Williams (2008). Fortunately, the crisis has not spread thus far to financial institutions in countries that had no connection to the questionable financial instruments. For example, the sharp rise in spreads in the money markets in North America and Europe has not been seen in Japan as it was during the "Japan premium" days in the 1990s.

The crisis has brought forth many policy responses in the United States. A large discretionary fiscal package was enacted and checks are now being sent out to millions of Americans. The Federal Reserve cut interest rates sharply, introduced several new lending facilities, intervened to prevent creditors from pulling out of Bear Stearns and the credit markets more generally, and numerous programs to support the housing market and prevent foreclosures have been put in place or are about to get underway. There are

also many proposals for increased regulation of the financial markets, especially in light of the Federal Reserve's facilities that provide loans to investment banks.

Thus far, however, the crisis has not had large depressing effects on the overall U.S. economy. Real GDP slowed in the fourth quarter of 2007 and the first quarter of 2008, but strength in other sectors has prevented employment declines in housing and financial services from leading to comparable declines in the rest of the economy. Moreover, the increase in housing prices during the housing boom has left prices too high in many parts of the United States, and it makes sense for these prices to fall to a new equilibrium. Public policy should not get in the way of allowing the appropriate price adjustments.

According to standard interest rate guidelines, such as the Taylor rule, the cut in the federal funds rate has been larger than theory or experience over the past 25 years would suggest is appropriate, even after making corrections for the increased spreads in the money market as suggested in Taylor (2008a). The connection with the increase in inflation is, of course, that the lower interest rates will create inflationary pressures, which will be especially problematic if the impact of the financial crisis turns out to remain mild for the rest of the economy, Moreover, the low interest rates in the United States may have increased inflationary pressures outside the United States.

Energy and Other Commodity Prices

The impetus for the increases in energy and commodity prices is, of course, found in relative shifts in demand and supply for specific goods. At least in the case of energy, the high prices are beginning to send signals to firms and consumers that they will have

to make adjustments and public policy should not interfere with price controls or subsidies. Indeed there is evidence that part of the high price of certain agricultural commodities is caused by subsidies which increase the demand for their production, corn-based ethanol being a prime example.

However, there is strong evidence that at least part of the increase in energy and commodity prices is related to the global inflationary pressures and thereby, in part, to the policy response to the financial crisis in the United States. As was clear in the 1970s, oil price shocks tend to be larger, at least in nominal terms, when monetary-induced inflationary pressures are high. Indeed, that was an important lesson learned from Governor Mayekawa's experience in the 1970s as I reviewed in the opening of this lecture.

More specific evidence comes from recent research at the International Monetary Fund. For example, Lipsky (2008) reports: "Preliminary evidence suggests that low interest rates have a statistically significant impact on commodity prices, above and beyond the typical effect of increased demand. Exchange rate shifts also appear to influence commodity prices. For example, IMF estimates suggest that if the US dollar had remained at its 2002 peak through end-2007, oil prices would have been $25 a barrel lower and non-fuel commodity prices 12 percent lower."

Exchange Rates

I mentioned the inconsistency between certain exchange rate management policies and the goal of keeping global inflation low. A closely related issue is that in the effort to keep the exchange rate from rising in the face of declining global interest rates,

central banks have had to increase their foreign reserves. Some of these funds are spilling over into sovereign wealth funds along with government revenues from higher energy prices. Indeed, some of these funds have invested in distressed financial institutions increasing their capital and achieving some needed de-leveraging without reducing loans.

Hence, the interaction between the global inflation, the financial crisis, interest rates, energy prices, and exchange rates is complex and multidirectional. There are many other connections, including the impact on asset and liability accumulation from the current account imbalances and protectionist reactions, but I think I have said enough to make my point.

Conclusion and Recommendations

Monetary economists stress the need for dynamic stochastic general equilibrium (DSGE) models of the whole economy, indeed of the whole global economy, in order to properly evaluate monetary policy options. As the list of issues addressed in this lecture illustrates, there is a need to consider an even more comprehensive set of general equilibrium issues when considering policy options in the current environment. These issues go well beyond monetary policy, but are connected to it. Assessing these broader interconnected issues on a rigorous and comprehensive basis is an important challenge for researchers in my view.

` The challenge for policy makers is to find a way to take account of the interactions and move forward on a more comprehensive approach. It is clear that the policies must have an international focus. This was stressed by Mayekawa many years ago and is even more important today.

Where might policy makers begin? In my view, a good place to start is with discussions about some kind of global inflation target. It does not need to be a numerical target. A concept along the lines of Paul Volcker and Alan Greenspan that the global inflation rate should not be so large or volatile that it interferes with private sector decision making.

Such discussions will naturally lead to questions of how such a goal would impact on the decisions of individual central banks. We are certainly a long way off from the science fictional account recently told by Stephen King of HSBC (19 May 2008). "…imagine this. Tomorrow morning, Ben Bernanke is woken by a phone call from George Bush who informs the Fed chairman that, overnight, a new monetary union has been created involving the US and all the emerging economies. The Federal Reserve will no longer look after monetary policy for the US alone, but instead set interest rates for the good of the new monetary union. The new "one size fits all" approach would surely force Mr Bernanke to raise interest rates from where they are today because inflation in this imaginary monetary union is currently averaging about 6 per cent (and rising)."

More realistically such discussions will focus attention on exchange rate regimes, monetary policy strategies, energy prices, foreign reserve holdings, and the proper role of regulation of financial and other markets. If we can extrapolate from the sensible recommendations of Mayekawa in the 1980s, we can hope for a push back from the increased use of demand management and calls for regulation along as well as a push forward toward market-based adjustments and price stability.

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