The organizers of this symposium have made a unique contribution by bringing together for study so many of the forms in which volatility occurs in different financial markets. For my overview assignment, which I take to mean interpreting the many excellent papers on a plane of generality, I have tried to identify some common elements in the causes, the consequences, and in the potentials for control of volatility in the financial markets. My own reflection has brought me to look for any fundamental patterns of economic behavior that underlie the performance of these markets. Stimulated by the Gertler-Hubbard paper, I have looked first for analogies with Schumpeter's classic formulation of the overlays of differing cyclical patterns, alternately of shorter term, medium, and longer term cycles within cycles. When Jim Tobin and I were among those studying with Schumpeter nearly 50 years ago, some of us then in our own thinking also wove into the Schumpeterian structure the influence of Keynesian multipliers and acceleration principles.

My sense is that the underlying causes of the various manifestations of volatility are to be found in the kinds of dynamic analyses that Schumpeter and Keynes visualized. But neither of them could have foreseen the tremendous change in financial markets that has occurred in countries across the globe since World War II, nor what has developed in the interrelations among these markets. The markets are now inextricably intertwined with the worldwide actions of savers and investors who have developed a fixation on seeking opportunities for capital gains through trading among financial assets as described

in Professor Goodhart's paper. Moreover, paralleling the internationalizing of commercial banking, all of the institutions serving financial markets have developed instruments to assist the fine tuning of arbitrage and asset swapping—not only around the world but also around the clock. The participation of all credit granting or credit creating institutions in these intricately interrelated markets has led not only to a proliferation of credit availability to support burgeoning activity but also to the widened use of a vast catalog of instruments, including trading in futures and options and indexed securities.

This evolving complex of new financial activities has, in effect, been superimposed upon the real goods transactions within and among the national economies and whatever cyclical variations occur among them. The counterpart has become a capacity or tendency for bandwagon swings to accelerate whenever attractive opportunities for gain appear through newly committing some of the ample supplies of liquidity, with which the world has become awash, into new potentials for appreciation and profitability.

What I am suggesting is that the great proliferation of markets, instruments, and financial investors over the past two decades has had a dual role. One of these roles, to be sure, has been to enlarge those active markets in which equities and bonds denominated in various currencies could be traded. Such markets have provided the supportive environment in which a vast growth of equity financing and debt financing could occur, making possible the remarkable growth in productive enterprise that has developed around the world during the past generation. The other role or aspect of this proliferation of markets has been to open opportunities for continuous switching among financial assets by investors or business firms in pursuit of greater gains. This acute sensitivity to greater prospects, on the part of increasingly active individual and institutional investors, almost inevitably creates volatility in the form of oscillations of varying magnitude in all manner of financial instruments.

I suspect that these oscillations only partly mirror the underlying real goods cycles under way in the various national economies. But they do seem to involve a characteristic pattern. I think I see that pattern most clearly in the foreign exchange markets. I have no problem, however, in seeing patterns in other securities markets for which the description I am about to suggest of the exchange rate relation between the dollar and other currencies may serve as an illustrative proxy.

Overview 245

What might be called the underlying cycles in the real goods and services fundamentals seem to me to lead the dollar along sustained paths of increase until one or more of the cycles crests, and then there comes a succeeding pattern of sustained decline in the dollar. When the dollar has been near a sustainable peak, a typical sideways trading range of relatively minor fluctuations prevails. Correspondingly, when the dollar has moved into a lower phase, a new trading range emerges. If volatility were to be measured only as the deviations around the gradient of a calculated regression, much of the significance of the customary use of the term volatility would be lost. What matter most in the widespread concerns over volatility are the longer swings, which are often punctuated by sudden and sharp drops or climbs (until a trading plateau is reached). It is these trend-like patterns which (when extreme) the Frenkel-Goldstein paper would call ''misalignment.''

To be sure, even while the dollar is resting for a time in a trading range, there is still a high volume of trading activity. Traders become so sensitized to prevailing fads that the markets go through successive fits and starts as traders interpret the comments or actions of financial officials, or they react to new data on commodity prices, or interest rates, or balance of payments developments, or shifting forecasts of change in the GNP of the United States and other leading countries. Even so, it is often during an apparently quiet trading range phase that a convergence of opinion in the foreign exchange markets of various leading countries, stimulated by underlying cycles in the real goods economies, begins to produce a prolonged rise in the dollar, or then later, a sustained decline.

It is when the dollar is moving along cyclical lines of this nature, as indeed it seems to have done thus far in 1988, that it takes on a new significance for economic policy formulation—not only within the United States but within the other countries whose currencies form the principal influence on the dollar's exchange rate. The longer swings characteristic of the dollar during the decade and a half of fully flexible exchange rates have generated great concern around the world over what is described as the disruptive volatility of the dollar. Concern of that kind has, of course, given rise to a succession of sometimes euphemistic communiques as to the state of the foreign exchanges that have been issued following the summits of the heads of state of the seven leading industrial countries. Not only

the expressions of the heads of state, but also those of all of us who view growth with stability as the proper objective for economic policy, have led to widespread comment about a supposed need to "stabilize" the dollar.

It is from the aroused anxieties of Treasury and central bank officials, and from the genuine critical expressions of many of us in the economics profession, that the leading countries have now been persuaded to join together in a G-7 or G-5 grouping, in order to bring finance ministers and central bank governors periodically together to cope with a perceived problem. Indeed, the disruptive consequences flowing from what was widely recognized early in 1985 as an overvalued dollar caused some of us to begin expanding our earlier proposals that two or more of the leading countries should try to agree on target zones for their exchange rates.

As one of the early proponents of target zones, I have always tried to be careful to avoid creating the impression that artificially contrived exchange rate stability was an objective to be desired. Instead, it has seemed to me that exchange rate movements focusing in the dollar serve as essential signaling devices, calling attention to unsustainable imbalances that have emerged in the balance of payments and international indebtedness positions of the leading countries and indeed, of many others as well. That is why I, as so many of us, have welcomed eagerly the fresh approach initiated by Secretary Baker at the Plaza in September three years ago. The arrangements, happily, have subsequently been formalized, with the full endorsements of the heads of state, for continuous appraisal of the indicators that describe the causes of unsustainable imbalances in the external accounts or foreign indebtedness of the United States and other leading countries.

The new procedures, on a scale extended far beyond the typical OECD consultations, promote intensive and continuous mutual interchange of appraisals among the G-5 (or G-7) countries, along with negotiations as to possible courses of action. This new approach offers a uniquely promising area of experimentation through which to introduce meaningful harmonization among the economic policies of those leading countries whose combined impact dominates the environment for trade and development throughout the world economy. And a special role is implied for the G-5 countries (France, Germany, Japan, the United Kingdom, and the United States) because their curren-

Overview 247

**cies** have been designated by the entire membership of the International Monetary Fund to provide the basis for determining the value of the SDR.

Having been forced by the development of speculative asset switching and massive capital flows to abandon the rigidity of the par value system in the early 1970s, and consequently experiencing the uncertainties of a floating rate system, the leading countries have now come upon a creative approach, through negotiation and mutual interaction, to begin approximating the kind of stabilizing influence in the world economy that once could be provided through the par value system under the IMF. All of the overlay of new financial institutions, investments, and facilities that transformed and displaced the older system have, paradoxically, created a need for a new approximation of what that older system aimed to provide.

The testing and the experimentation now going on within the framework of the G-5 and G-7 grouping give the world a promising opportunity to learn whether or not it can be possible, in reaction to the various forces that have been creating long term swings in exchange rates, for the financial authorities of the leading industrial countries to find a workable process for achieving a degree of stability, particularly among those five countries whose currencies form the SDR. Effective coordination among them can recreate conditions similar to those of the Bretton Woods years which were conducive then to remarkable worldwide growth and reasonable stability. The conditions now attainable among these five countries (or the seven) can provide a center of gravity for the world monetary system with a stabilizing influence throughout much of the world economy.

To be sure, as Dr. Frenkel suggests, much of the hope for achieving these stabilizing results depends on the quality and continuity of the sustained contacts among the officials of the leading countries, as well as upon their ability to influence specific action—and these contacts and actions may be vulnerable to frequent changes in governments. But my faith in and hope for the new framework, as it becomes institutionalized over the years to come, is that traditions of compelling force will emerge in the various finance ministries that, will correspond to the tradition of institutional continuity and memory that is characteristic of the central banks. I trust, too, that a lasting role in this process will be found for the IMF in a new reincarnation to serve as the monitor of the forces and factors that are taken into

account by the G-5 countries in their coordinated effort to perform a stabilizing role for the international monetary system.