Structural Changes in the Financial Markets: Economic and Policy Significance

By Henry Kaufman

Over the recent weeks, we have gotten an eye-opening, though relatively brief, preview of how profound changes in the structure of world financial markets have magnified the potential for extreme market volatility that can reverberate across the global financial system. Today, I want to speak to you about those structural changes, the new financial risks they will almost certainly spawn, and how these serious financial risks should be contained. For it is undeniable that we have moved into a more hazardous environment in which new financial excesses are practically unavoidable. The reason is that certain defects are already deeply imbedded in the genes of our financial condition. These defects will contribute to progressively greater fluctuations in the prices of stocks, bonds, and currencies, to bouts of turbulence in the credit markets, and possibly to a plunge in financial asset values that will dwarf what we have experienced so far this year.

Indeed, from a longer perspective, the latest swings in bond and stock prices are likely to be merely a prologue to much greater volatility in the years ahead. This potential for financial trauma is a by-product of radical changes in the structure of financial institutions and markets that over time are leaving the system without an adequate institutional buffer and, therefore, more susceptible to sharp oscillations in the flows of investment and credit.

While new financial excesses cannot be totally prevented, proper action can mitigate their adverse consequences to some extent. To accomplish that, however, we must be willing to acknowledge the risks that lie ahead, to take them into account in the formulation of monetary policy, and to make some fundamental changes in the structure of official oversight and regulation of financial institutions and markets.

I suspect that to many it seems incongruous that market volatility has burst forth in a dramatic way at the very time when the financial positions of American households, corporations, and financial institutions themselves were on the mend. Financial rehabilitation in the United States has, in fact, proceeded at a very good pace. Debt burdens have been reduced sharply and capital posi-

Henry Kaufman is president of Henry Kaufman & Company, Inc. This speech was delivered to the Board of Directors of the Federal Reserve Bank of Kansas City on March 9, 1994, and to the CS First Boston Corporation Global Banking Conference, New York City, on April 25, 1994. The views expressed in this speech are those of the author and do not necessarily reflect the views of the Federal Reserve Bank of Kansas City or the Federal Reserve System.

tions have increased significantly for financial institutions and businesses.

But there is a dark side to financial rehabilitation. A sense of financial well-being—and the capacity of aspiring demanders of credit to tap into the resources of willing lenders and investors—is a necessary condition for incubating *new* financial excesses. Thus, it would be wrong to become complacent about what might follow as the economic expansion matures. Sooner or later, credit demands of businesses and households will begin to pick up momentum, and stronger financial institutions will be in a position to readily meet those demands. Monetary policy will switch, first, from accommodating to neutral as it has already started to do in the last few months and, eventually, toward overt restraint. Somewhere in this sequence of events, the structural changes in the financial markets will have a far more profound impact on securities values than the gyrations that occurred in recent months.

FUNDAMENTAL CHANGES IN FINANCIAL INSTITUTIONS AND MARKETS

I particularly want to call attention to three structural changes that keep the financial system vulnerable to excess.

First, in the United States, traditional lending and investing institutions are playing a diminishing role in determining the composition of investment and the response to market developments, whereas the household sector, mainly through the vehicle of the mutual fund, is playing an enormously expanded and still unfolding role.

Second, the global financial markets are undergoing what I would call the "Americanization of finance." This encompasses (1) increasing deregulation of markets and institutions, (2) rapidly increasing securitization, (3) much greater use of new financial instruments and trading techniques, especially incorporating financial derivatives, and (4) the growing presence in the markets of an expanding group of "high-octane" portfolio managers who are free to roam throughout the financial sphere, in and out of currencies, equities, bonds, commodities, and related derivative instruments with primarily a very near-term focus and no particular loyalty to any national marketplace.

Third, both in the United States and in most of the major industrial countries, a tremendous infrastructure has been put in place to promote credit creation. Most of the newcomers operate outside the conventional banking system and therefore largely outside the purview of central banks. But conventional depository institutions, now with rebuilt capital positions, are also in a position to lend. Thus, the potential for rapid increases in credit is high. Add these three structural changes together and we have a lush environment for cultivating financial excesses.

Let me try to put some dimensions on each of these three elements.

MUTUAL FUNDS AND DIMINISHED ROLE OF TRADITIONAL INSTITUTIONAL INVESTORS

For nearly three decades—that is, from the early 1960s until the beginning of the 1990s—the archetypal institutional investor was the pension fund of a major multinational corporation or of a state and local government entity. Supplanting insurance companies, which had been the preeminent institutional investor in prior decades, these funds grew over this period by almost $2 trillion, or about two-thirds of the total increase in institutional net financial assets. But by the onset of this decade, that electrifying growth had already begun to taper off, mainly as a by-product of corporate restructuring. As the corporate giants, one by one, moved to shed business lines and employees, and as defined contribution plans began to supersede the defined benefit plans of yesteryear, pension fund growth started to flatten.

By comparison, almost overnight, mutual funds boomed. One of the most interesting aspects of the mutual fund phenomenon is how long the vehicle existed before truly significant amounts of money were invested in them. As recently as the end of 1984, the combined total of equity and bond mutual funds in the United States amounted to only a little over $100 billion, less than 2 percent of total financial net worth of households. Since then, mutual funds have mushroomed and now substitute for conventional bank deposits. Of that total, $1 trillion is owned directly by households, representing almost 10 percent of household financial net worth.

Perhaps even more significant are the following facts: Since the stock market crash of October 1987, equity mutual funds have swelled from about $180 billion to some $700 billion through a combination of fresh inflows of funds and capital gains. What this means is that the average investor in equity mutual funds has never experienced a prolonged bear market. Neither has the average investor in fixed-income mutual funds. From the onset of the secular bull market in bonds which began in 1982, the assets of bond mutual funds increased by a factor of 35 times, from a minuscule $20 billion to over $700 billion. Up until last fall, only a minority of individuals had much personal memory as investors of what happens to bond prices—and consequently mutual fund net asset values—when interest rates start a protracted cyclical rise.

The fact is that we do not know how the ordinary investor in mutual funds will react when equity prices and bond prices continue to display spasms of volatility, instead of the highly agreeable upside volatility to which most had grown accustomed. Probably the sternest test will come as the economic expansion matures, credit demands start to lift, and short-term interest rates move persistently higher. At some point, after repeated bouts of volatility in the stock and bond markets, interest rates on CDs or other money market instruments, which will have moved higher, will no longer be looked at contemptuously by many investors, new inflows into mutual funds will dry up, and many individuals may become net sellers. The managers of mutual funds have no really viable alternative but to pass through these sales into the market. They cannot take a view apart from their investors; they cannot leverage mutual fund portfolios to take advantage of what they might think will be a temporary downward price correction. They will have to sell regardless of the impact on prices and regardless of whether other buyers of equities and bonds step forward quickly to buy.

I understand that there are valid differences of opinion on how the individual investor will behave under such circumstances. Some recall the transitory nature of the October 1987 stock market break and say that individuals generally will be slow to act, essentially riding out sharp contractions in equity and bond prices and thereby providing a buffer against more proactive traders. Perhaps. But that assumption of sluggishness on the part of the ordinary citizen proved to be conspicuously wrong in the case of the mortgage market. Homeowners were not at all sluggish in taking advantage of lower interest rates to refinance existing mortgages. On the contrary, they acted with an alacrity that utterly confounded the vast statistical models run by market professionals. As prepayments surged, holders of mortgage securities who were operating under the flawed assumption of household inertia were badly burnt.

Drawing an analogy from that episode, I conclude that it is a potentially grievous error to assume that individual investors will always be slow to react to sudden, highly visible setbacks in stock prices, bond prices, or both—certainly not in a world when all an investor has to do in order to switch from an equity or bond fund into a money market fund is to go to the telephone and push a sequence of buttons. The technology is in place for a cascade of selling by investors in mutual funds.

Consequently, I am even more seriously concerned now than a year or two ago when I began calling attention to this lurking problem—namely, that excesses originating in the mutual funds area may be the source of an economic shock should an asset price bubble be suddenly burst. An abrupt, substantial drop in financial net worth can easily have a powerful impact on consumption decisions, leading to a postponement or even abandonment of spending on homes, cars, and other big-ticket items. Such a wealth effect may swamp other, more conventional determinants of household expenditure. In extreme cases, it could be large enough to precipitate an economic contraction. In principle, the central bank could offset this contractionary impact by easing monetary policy, but in practice that might be a hard thing for the Federal Reserve to do, since the shift out of equity and bond mutual funds and into money funds and bank deposits will naturally swell the monetary aggregates. Because this whole chain of events is most likely to occur at a time when the central bank is already engaged in a process of tightening money and credit conditions, it is not impossible to suppose that there will be at least some delay in making the decision to engineer such an abrupt about-face in policy.

It seems to me that not enough thought has gone into the question of how mutual funds should be regulated and supervised. This is not meant to be critical of the Securities and Exchange Commission (SEC), which is the official institution charged with overseeing the U.S. mutual fund industry. But the time has come when we have to be concerned not only with the issues of fraud and abuse, which is the conventional focus of the SEC, and consider the systemic implications of the explosion of mutual funds. We need to evaluate two things: First, the consequences for the American economy and for the financial markets of a potential sudden sell-off of mutual fund shares and, secondly, how to limit the impact of such shocks by putting in place a waiting period for fund sales in order to drive home to investors that equity and bond funds are not to be considered close substitutes for money funds and bank CDs. In a sense, this would be the functional equivalent of the circuit breakers installed by the stock exchanges and the futures exchanges, which were designed to introduce some delay when the market is stunned by a surge in volatility. The question of how to shield the system from a collapse of confidence in mutual funds is one more reason why comprehensive reform of financial regulation is badly needed, going well beyond the narrow industry focus of proposals now on the table.

AMERICANIZATION OF GLOBAL FINANCE

The second area of profound structural change in finance is what I have earlier referred to as the "Americanization" of global finance. This involves progressive deregulation of financial markets. It means a greater access of borrowers to different types of credit products, therefore greatly expanding credit availability to both businesses and households. In addition, Americanization entails a significant extension of securitization to many other capital markets in the world. In the all-important markets for government securities it entails a gradual adoption of many of the practices that first developed in the American government securities market, such as repurchase agreements, scheduled auctions, and increased participation of foreign investors. Greater securitization means that over a period of time, more and more financial assets will be marked to market, and fewer assets will be sheltered from potentially volatile price changes, as is the case when loans are held on the balance sheets of traditional lenders. Americanization also involves the broadening of professional portfolio management, usually with a very short-term investment horizon and the widespread use of performance measurements which more deeply ingrain this behavior.

In practical terms, the implications of Americanization are far-reaching: To begin with, virtually all major industrial countries are now living within the confines of a more or less deregulated financial system, wherein financial entrepreneurs are the principal players reshaping this system. Granted, a handful of depository institutions, particularly in Japan, but also in the United States and even in Western Europe, are operating under greater official scrutiny because the memories of recent excesses are still vivid. But a whole host of other banks, together with unregulated or lightly regulated financial institutions, are engaged in pushing their own risk-taking in new directions, and sometimes to unaccustomed limits. The common denominator is to try to jump into any market niche where returns appear to be greater than average, regardless of the long-term compatibility of that line of business to the underlying experience and strengths of the firm. As a result, we can expect to see some significant missteps by at least a few of the more hard-driving competitors.

Moreover, high-octane portfolio managers are expanding in number and in the magnitude of funds they deploy. The ultimate evolution of the risk-taking financial entrepreneur is the portfolio manager who can go long or short in any market, in any currency, and on a leveraged or an unleveraged basis—and who often can do this in a tax-advantaged off-shore vehicle, with minimal, if any, official supervision. When full leverage is employed by this new breed of managers, I suspect that they can command portfolios totaling upwards of $500 billion, although no official statistics are kept by any national or international agency—which itself is a matter for concern.

Why is this class of investor a potential incubator of the next round of financial excess? After all, if they make a misjudgment on the market, their contributing investors will merely lose money, and since those investors are by definition highly sophisticated, as well as wealthy, they can afford the hit. The reason has to do with human behavior. When the managers of large high-octane portfolios go into the market to build sizable risk positions, others inevitably follow, since it is practically impossible to disguise these substantial positions completely. The hangers-on have benefited handsomely when the leaders have been right. But experience teaches that no one is clairvoyant, however astute technically or financially. The leaders also get it wrong from time to time, and while their investors might tolerate the resulting losses, others may not be so fortunate.

Finally, the growing use of financial derivatives is itself another manifestation of Americanization. What are some of the concerns that this development poses? I would cite the following:

(1) The current high profitability in financial derivatives will inevitably pull in a greater number of market participants. This will eventually generate excess capacity, depressing profit margins and inducing many to move to the marginal edge of risk-taking where competition is least and fees are most lucrative.

(2) Another set of concerns in financial derivatives involves the matter of exposure to credit risks. No one knows whether adequate credit evaluations are possible, especially when they relate to exposures resulting from transactions with new types of organizations, such as leveraged funds for which conventional credit ratings are inapplicable, or with subsidiaries of non-financial corporations which may have a complex and not entirely unambiguous relationship with the parent. This type of problem was apparent in the recent difficulties encountered by Germany's Metallgesellschaft. I, along with others, have concerns about an erosion of credit standards as competition in the marketplace increases.

(3) As for the potential for market disruption, I question whether market risks in financial derivatives can always be managed and whether any open position can always be covered before it goes hopelessly wrong. Experience has shown that whenever there is even the slightest chance of trading halts or of the abandonment of market-making by leading dealers, normal market access shrinks. As a result, new hedges cannot be put on when essentially everybody in the market is trying to do the same thing at the same time. Thus,

volatility can balloon by orders of magnitudes, defeating even the best planned hedging strategy.

(4) A related problem for hedging risks is the danger of basing hedging strategies on statistical models relying on past behavioral patterns. The structural changes alone in financial markets are bound to cause significant deviations from past relationships. There is no way in which these differences can be adequately incorporated in risk modeling.

(5) A final source of concern about these markets is simply this: Financial derivatives permit greater leverage in the system, allowing marginal borrowers to stay in the market longer than would otherwise be possible.

While I raise this concern in the context of financial derivatives, my worry is actually a broader one. As I mentioned in my introductory remarks, financial rehabilitation, while essential for creating the conditions for a strong revival of business activity, has a dark side. It is that the infrastructure for vigorous credit expansion has not only been rebuilt but has been enlarged in the process. Let me turn now to the implications of this development.

INFRASTRUCTURE FOR CREDIT CREATION

I suppose that the late Sidney Homer and I, back in the 1960s, were the first to coin the term "credit crunch" to describe an abrupt discontinuity in the flow of credit that may set severe contractionary economic forces in motion. In fact, both before and since, the history of business and financial cycles has been punctuated by sharp discontinuities in the channels of credit creation. Those disruptions have had varying causes—ranging from quantitative rationing in decades past engendered by such devices as Regulation Q ceilings, to the credit quality rationing that characterized the financial crunch of the latest cyclical episode. But regardless of origin, these discontinuities had similar effects: they set in motion a sequence of events that eventually was responsible for terminating a period of economic expansion by choking off credit availability to important segments of the economy.

Today, when memories of the most recent financial crunch are still fresh in our minds, it may come as a surprise to hear me warn of the unprecedented infrastructure for *credit creation* that is now in place in the United States and soon will be in other major financial centers. Commercial banks and many thrift institutions have shifted from a position of capital insufficiency to capital surfeit. They show a renewed appetite for lending and are in a position either to issue CDs or to liquefy securities holdings to finance new lending. But the nonbank financial institutions and open credit markets, which have successfully wrested considerable market share in lending to businesses and households away from the depository institutions are not about to disappear. Instead, they are in a position to move even more aggressively to make use of their considerable capacity to lend.

Moreover, the infrastructure in place to support extensive securitization is available for branching out into new markets. Securitization of mortgages, credit card receivables, and auto loans is just the beginning of the process, not the end of it. Domestically, home equity loans will be securitized to an increasing degree. What will probably follow will be widespread securitization of ordinary commercial loans, with or without the establishment of government sponsored entities to lubricate the process.

Internationally, securitization is advancing quickly, with discordant results. For example, we have experienced the rather extensive securitization of Less Developed Country (LDC) debt, which has effectively transferred the great bulk of the previously outstanding bank loans by repackaging them either as conventional bonds or as debt obligations that trade like bonds. This has been the product not only of the elaborate debt restructuring exercises supported by the United States and other industrial country governments, the International Monetary Fund (IMF), and the banks, but it also reflects the substantial new issuance of securities on behalf of LDC borrowers. An estimated \$75 billion of such new securitized assets have been absorbed by the public markets in the past five years, with a growing portion of the investment flows coming from the mutual funds and other commingled funds. This whole process has done a great deal to solve one problem, namely extricating the major commercial banks from their past credit misjudgments, only to introduce new and potentially formidable risks. In recent weeks, the market for the debt of emerging countries has undergone truly extraordinary turbulence, with price fluctuations averaging three to four times those of U.S. Treasuries. Consider how much greater volatility may become if one or more of the large emerging countries run into economic difficulties and cannot service the bonds. Reschedulings will turn out to be even harder to negotiate in a world of securitized obligations than they were during the bleakest days of the LDC debt crisis of the 1980s, since bondholders, with no ancillary business to protect, are unlikely to be as cooperative as bankers—and in retrospect the cooperation of those bankers was not entirely enthusiastic, either.

From a broad economic policy perspective, securitization will have far-reaching consequences. In such an evolving world, the degree of credit restraint in operation at any particular time will not be measurable by standard money supply or even bank credit indicators. Other time-honored rules of thumb, such as the notion that financial intermediaries are in the business of borrowing short and lending long, will be turned on their heads. Finance companies engaged in active securitization may be borrowing long and lending short, while hedging their exposure to interest rate movements through a series of transactions in financial futures and options. Surges in credit demand therefore may not have the conventional effect of flattening the yield curve; the impulses may be quickly transmitted up and down the yield curve through the actions of the new lending originators. This will indirectly impart greater volatility on intermediate and longer term bond markets, with corresponding effects on equity markets.

As a consequence, in the emerging financial world of high-octane, high credit availability finance, restraint will come more from unprecedented asset price variation and less from squeezes on short-term credit availability or cost. This world will have striking implications for monetary policy, for the financial supervisors and regulators, and for various market participants, including commercial banks. Let me discuss each in turn beginning with implications for monetary policy.

IMPLICATIONS FOR MONETARY POLICY

Central bankers throughout the industrial world are struggling with a dilemma. On the one hand, they have achieved an extraordinary independence in the formulation and execution of monetary policy. The Bundesbank, the Federal Reserve, and the Bank of Canada already had a substantial measure of independence. But now the central banks of France, Italy, and even Japan are operating with considerably more independence than ever before. Only the Bank of England is formally subordinate to the UK Government, but I suspect it is only a matter of time before that will change and a form of independence compatible with British constitutional traditions will be crafted.

On the other hand, there is no longer any reliable analytical guidepost on which to direct monetary policy. The vast structural changes in the financial system that I have described make it impossible for any central bank to anchor policy to any monetary or credit target. There is no alternative but to fall back on judgment. But judgment exercised toward what objective? Significant differences of view now exist on what the basic objectives of monetary policy should be, especially among politicians, academics, and financial market participants, although perhaps less so among central bankers themselves.

Let me state my own view up front. I believe that the primary objective of a central bank should be to maintain the financial well-being of society in the broadest sense. That means establishing stable financial conditions by exercising careful oversight over financial markets, institutions, and trading practices, anticipating potential problems, and taking remedial action before they can do widespread damage. Thus, it means pursuing monetary policy actions what will over a period of time provide the foundation for the successful achievement of sustainable economic growth with minimal inflation, and with minimal risks of financial shocks that could disrupt the economy.

Therefore, I do not go along with the line of thinking that maintains that the central bank should have only the most single-minded of objectives: specifically the pursuit of price stability, perhaps defined as a target range for the inflation rate. In my view, the logic for enshrining such a narrow objective—namely, that an environment of low inflation is both a necessary *and* sufficient condition for economic growth and financial market stability—is flawed, and in practice such a price-stability objective will rarely, if ever, be faithfully pursued.

Indeed, I would argue that because it fails to give precedence to maintaining the financial well-being of society, it is a deceptive objective, for the following reasons:

First, low inflation, while obviously desirable in and of itself because it does contribute to a sturdy framework for a nation's economic prosperity, is nonetheless no guarantee against the emergence of financial excesses. History proves this conclusively. The classic case for the United States was the decade of the 1920s, when inflation remained low, but financial excesses developed both in the equity market and in commercial real estate. In recent times, we also have the vivid example of the mid-1980s. Inflation performance was exemplary; the rise in the consumer price index in 1986 was one of the lowest in the entire postwar period. But within the fabric of our financial markets there was developing some of the worst financial excesses of this century, a process that would eventually lead to massive financial failures, huge taxpayer costs, and a largely unforeseen credit crunch that would aggravate the business downturn and constrain the subsequent economic recovery. Arguably, low inflation is a *necessary* condition for financial well-being, but it surely is not a *sufficient* condition for financial well-being. That requires a more complex set of economic and financial circumstances grounded not only by a central bank's monetary actions but also by its role as the institution entrusted with assuring the safety and soundness of the financial system as a whole.

Second, an obsession with achieving low inflation at all costs carries other risks. Long-lasting economic stagnation can bring about a potentially large and highly undesirable redistribution of wealth. Thus, the approach can over a period of time undermine public support for free markets. This may eventually be manifested in a swing toward a narrowly nationalistic posture on international trade and thus can do considerable damage to important principles.

Third, the alternative to a sole central banking objective of low inflation is not indifference to the rate of inflation. Central banks that have acquiesced in, or abetted, high inflation are practicing a form of financial corruption that eventually destroys national unity and ends up in financial ruin. But for a central bank that has built up a reputation of integrity and devotion to stability, there is a powerful case for looking beyond the inflation situation at any particular time and anticipating how the inflation rate will evolve in reaction to changing economic circumstances. This means that such a central bank will be able to pursue an accommodative monetary policy even in the face of a lingering rate of inflation which is higher than the expected rate that will eventuate over a long time period. This ability to craft a policy on the basis of sound analysis of future trends, rather than moving in lockstep with available data that necessarily record only what has already happened, is the hallmark of sensible effective monetary control.

As I see it, the proper responsibility of the central bank—assuring the financial well-being of society—requires an intimate involvement in financial supervision and regulation. In fact, I have long believed that it is only the central bank, among the various regulatory agencies which share responsibility in this area, that can represent the perspective of the financial system as a whole. This should be the central organizing principle behind any comprehensive reform of financial regulation and supervision in the United States.

TOWARD A COMPREHENSIVE FRAMEWORK FOR FINANCIAL REGULATION

The danger of a new round of financial excesses presents a clear challenge to the official supervisory and regulatory structure for financial institutions. I have argued over the years for a serious effort to reform in a fundamental way the convoluted system of financial regulation we have stumbled into. I have also supported efforts to forge a better international harmonization of supervisory, regulatory, accounting, and trading standards and practices. In both realms, the domestic and the international, much work is left to be done.

Recently, the U.S. Treasury put forward a proposal for reform of one relatively circumscribed, though no doubt important, part of the regulatory structure—consolidating bank examinations in one agency so as to eliminate a good deal of duplication of effort and expense in the current system. On its face, it is a legitimate goal, but the benefits of reducing duplication need to be weighed against the costs of restricting the Federal Reserve's direct role in financial supervision and regulation. On this issue, once the public relations phase of the bureaucratic tug-of-war has run its course, I would expect a reasonable compromise can be worked out.

The main reason why I am not an enthusiastic supporter of the Treasury proposal is that it is too narrow. It misses most of the key structural changes in domestic and global financial institutions and markets that I described earlier in my talk. What is really needed is a comprehensive overhaul of regulation and supervision. That would involve a number of elements.

One, we need to bring together banking, securities, and insurance regulators to reach agreement on *standards*—accounting standards, disclosure standards, and trading standards, and on minimum capital requirements. This should also include nonbank institutions such as finance companies, which are now effectively unregulated. At the present time, there are large differences from country to country and within countries from one type of financial institution to another. They are out of touch with the realities of how markets now work and how business is being done. Harmonization is essential to ensure fairness in the marketplace and to avoid the lowest common denominator outcome as institutions practice what is known as "regulatory arbitrage." I might add that the Internal Revenue Service and its counterparts in other countries also ought to be included in this process, so that tax considerations do not unduly influence the location and form of financial activity.

Two, in order to reduce the danger of sharp setbacks in bond and stock prices that would endanger economic growth, I propose that investors in bond and stock mutual funds be required to give 60 to 90 days' withdrawal notice. This condition would be roughly analogous to the long-standing requirement that applies to Certificates of Deposit and time deposits at banks and thrifts. It would reinforce the notion that mutual funds are not cash equivalents and should be approached as a serious investment. It would have the desirable effect of forcing investors to become more aware than they appear to be at the moment of the risks they are exposing themselves to through investment in such funds and will introduce a useful brake on exaggerated reactions to abrupt price movements. Since it is a significant departure from existing procedures, this measure should be phased in gradually beginning with net new investments.

Three, these and the many other issues that inevitably flow from the greater internationalization and complexity of finance cannot be dealt with reasonably and in a timely way without an ongoing institutional capability. I have long believed that the most promising approach would be to establish a new international institution to serve as the focal point for regulatory harmonization. A "Board of Overseers of Major International Institutions and Markets" should be established, consisting of central bank and other governmental agencies. It should also include members drawn from the private sector. It should be empowered to set mutually acceptable minimum capital requirements for all major institutions, to establish uniform trading, reporting, and disclosure standards for open credit markets, and to monitor the performance of institutions and markets under its jurisdiction.

OUTLOOK FOR FINANCIAL MARKETS AND INSTITUTIONS

Let me conclude by highlighting seven key implications that arise from the intersection of the structural changes in financial markets and institutions and the cyclical condition of the U.S. and foreign economies.

First, volatility in financial markets is bound to increase significantly further in the period ahead. The increased importance of risk "pass through" institutions, notably mutual funds, which merely transmit the investment decisions of their investors and take no risks of their own, and the diminished role of traditional financial institutions that take risks onto their own balance sheets magnifies the danger of wide swings in equity and bond prices. This volatility will also be enhanced by the continued rapid growth of securitized assets and the more subdued increase in nonmarketable assets, as the practice of marking to market becomes the norm rather than the exception. Moreover, as we move from a period of secular rise in equity and bond prices to a more unsteady future, the likelihood of episodes of sudden asset price declines will increase. Financial markets are better equipped to shift risk from one participant to another, especially through the use of financial derivatives. But that reallocation of risk does not materially lessen the danger of a period of disorderly trading in the vent of an unforeseen shock. Those financial institutions that have been unduly complacent about their capacity to insulate themselves by supposing that they can always go into the market to hedge risks are the most vulnerable to an adverse surprise.

Second, in the new financial environment, the Federal Reserve may find it impossible to flatten the short-to-long yield curve, let alone invert it. The reason is that conventional rules of thumb about the impact of monetary policy actions on the financial markets no longer apply in a financial world dominated by mutual funds and other risk "pass through" institutions. Also of importance for monetary policy, the decline in segmented financial markets, wherein financial institutions used to be able to count on making moderate profits without straining to deal with fierce competition, combined with the move toward a mark to market requirement, will make it far more difficult for affected institutions to take the longer view that might otherwise justify holding onto long positions in stocks or bonds through a financial storm. Consequently, at the next cyclical peak in interest rates, short-term rates—such as on three-month Treasury bills—may reach close to 7 percent while the yield on long U.S. Governments may trade somewhere in the 9 percent to 10 percent range.

Third, for well-managed commercial banks involved in traditional lending and investing with floating rates of return on assets and variable rate liabilities, the persistence of a positively sloped yield curve will continue to be highly beneficial. They will also benefit from a further consolidation in banking, improving their capacity to maintain a profitable pricing structure.

Fourth, the greatest threat to the stability of the system will probably come through more aggressive and more lightly regulated participants in the marketplace or through banks that seek to exploit the new vogues.

Fifth, central banks will be compelled to move away from a strategy of gradualism and give greater weight to actual and prospective conditions in financial markets in conducting monetary policy. Gradualism gives the appearance of prudence and caution, but actually imparts considerable risks onto the economy and the financial markets. In a period of deteriorating economic conditions, when excess productive capacity emerges and the private sector faces financial difficulties, gradualism prolongs distress and inhibits economic and financial rehabilitation. The central bank must be willing to act before the inflation rate has had a chance to respond to the emergence of slack and the weakening of demand pressures in the economy. By contrast, in a period of improving economic conditions and under a changed financial system with powerful entrepreneurial participants that can breed new financial excesses, gradualism in moving toward a less accommodative monetary policy — and eventually to a policy of restraint — carries the risk of encouraging financial bubbles that will force economic setbacks. What is needed is a more flexible monetary policy that can be quickly adapted to changed circumstances, even if that means reversing course on a few occasions when false signals intrude. Giving greater weight to conditions in financial markets is a necessary ingredient of such a flexible approach, since changes in asset prices have a powerful effect on the net worth of the private sector, influencing consumption and investment decisions, and borrowing intentions.

Sixth, before the end of this decade, the financial markets of many emerging countries, which have flourished in recent years, will be hit with substantial turbulence, far beyond the gyrations that occurred in the last few months. This is because renewed economic growth in the industrial world a few years from now will generate enlarged credit demands and will reduce liquidity in the industrial countries, limiting the availability of funds for developing countries. Moreover, securitized markets and the interwoven linkages of international markets will expedite the flight of capital whenever prospects appear to deteriorate.

Finally, I am more convinced than ever that we will have a thoroughgoing overhaul of the structure of official supervision of financial markets and institutions, both nationally and internationally. The question is "When?" Will such a new framework come about in an orderly manner, after an intensive and relatively expeditious discussion of alternatives? Or will it only come about after a major financial crisis, in an attempt to repair the damage? No one, least of all the American Administration, wants a new financial crisis, but more importantly the American economy cannot afford one. That is why I conclude that the answer to the question "When?" is right now, when there is still containable volatility in financial markets — a condition that cannot be taken for granted a few years hence, if nothing is done to improve the structure and capabilities of our official supervisory and regulatory institutions.