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New Challenges for the Global Economy

Remarks by

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In assessing current and prospective conditions of economies, some tend to view the current state of an individual economy in terms of special factors affecting it in isolation from more sweeping developments in the global economy. In the European context, for example, over the past two decades, policymakers were preoccupied with such developments as how to respond to the drastic changes in oil prices in the 1970s, or how to react to the slowing in economic activity in some West European countries in the early 1980s (which soon was labelled "Euro-sclerosis"). Similarly, policymakers are currently confronted with how to assess the impact on their economies of, and how to respond to, the dramatic economic and political changes occurring in Central and Eastern Europe and the Soviet Union. While such events, doubtless, need be incorporated in official and private decisionmaking, it must be recognized that such developments are often transitory. By making such events the primary focus, policymakers and others may be paying inadequate attention to, and, therefore, may be insufficiently prepared to respond to other more fundamental changes in the structure and operation of the global economy.

Over the past year or so, I have endeavored to emphasize a little noticed structural change of recent decades that has had, and is continuing to have, a profound impact on the world economy, as well as on world politics: the "downsizing of economic output".

This is the process that substitutes conceptual insights for physical volumes in the creation of economic

value. A half century ago, for example, our radios were bulky and activated by large vacuum tubes. Today, owing to the insights that developed into modern electronics, the same function is served by pocket-sized transistor packs. Thin fiber optics are replacing vast tonnages of copper. Advances in architecture and engineering, and the development and use of lighter but stronger materials, now give us the same working space in newer buildings, with much less concrete, glass, and steel tonnage than was required in an earlier era.

Even the physical quantity of goods consumed in creating economic services has been affected by downsizing. Financial transactions, historically buttressed with reams of paper, are being progressively reduced to electronic charges, though the sheer volume of activity has kept paper usage higher. The transportation services industry, as a result of conceptual advances, now moves more goods with greater convenience, while consuming substantially less fuel per ton. In addition, passenger miles have expanded greatly relative to the physical materials required to build large modern jet aircraft.

As a consequence, the considerable increase in the economic well-being of most nations in recent decades has come about with little change in the bulk or weight of the gross national product. In fact, if all the weight of materials we produce--the tons of grain, cotton, ore, coal, steel, cement, etc.--were summed, their total weight per capita might not be much greater today than it was, say 50 or 75 years ago. This

would mean that increases in the conceptual components of GNP-- that is, those reflecting advances in knowledge and ideas-- would explain by far the major part of the rise in real GNP in the United States, and presumably the industrial world as a whole.

Underlying this entire process of downsizing have been quantum advances in technology, spurred by economic forces. Although downsizing has been evident, more or less, since the beginnings of the industrial revolution, the explosive growth in information gathering and processing techniques in recent years has greatly extended our analytical capabilities of substituting ideas for physical volume. Moreover, since knowledge is essentially irreversible, these trends almost surely will continue into the decades ahead.

In a world of downsizing, the purpose of production and exchange of economic value does not change. It still serves human needs and values. But because the form of output is becoming increasingly less tangible a somewhat lessened concern over the depletion of finite natural resources in the face of growing populations has become warranted.

But of more immediate consequence is the implication of downsizing on international trade, which is having a profound effect on the policies of the world's economies. International trade in construction gravel and fiberglass insulation, for example, is limited by weight and bulk. High value computer products, on the other hand, are major and increasing factors in world trade. Obviously, the less the

bulk, and the lower the weight, the easier it is to move goods, both within national borders and across national boundaries.

It is not surprising, therefore, to find that after adjusting for changes in export prices, pounds shipped per real dollar of U.S. exports fell an average of almost 3-1/2 percent per year since 1970. Reflecting the downsizing of tradable goods worldwide, pounds shipped per real dollar of U.S. imports declined even more, an average of 4-3/4 percent per year. Not surprisingly, the share of U.S. foreign trade carried by air has doubled since 1970. On a global basis, the real value of trade has grown at a 5 percent annual rate over the last two decades, significantly outstripping the growth of domestic demand in the world. (In tonnage terms, needless to say, the increase has been far less.) This, of course, implies that the ratio of imports to domestic output worldwide, on average, has been rising and will apparently continue to do so, provided trade barriers are not erected to thwart the trend.

One fallout from the downsizing of product is the increased integration of the world's production facilities. Bottlenecks tend to emerge when domestic productive facilities are pressed to capacity by burgeoning demand. But if additional supplies from other world producers can be made readily and quickly available, such pressures can be significantly allayed. Indeed, as import availability on average tends to become an increasing source of supply, foreign producers will increasingly vie with domestic suppliers. Thus, as we progress toward further downsizing of economic output,

worldwide production and inventory control integration becomes far more feasible, inflationary dislocations less likely, and we may well experience a dampening of the inventory cycle. In fact, such a dampening may well help to explain why the current U.S. economic expansion, contrary to most American economic history, has continued for such an extended period.

After a brisk expansion through 1988 and the first quarter of 1989, the American economy began to behave like a tire with a slow leak. The economy's momentum began to fade and the typical prerecession symptoms became progressively manifest.

By autumn, increasingly negative signals concerning the economic outlook began to develop. The emerging weakness in manufacturing, especially in the durable goods sector, seemed to be cumulating and prospectively spreading to the nonmanufacturing areas of the economy.

In the event, however, the weakness in industrial activity bottomed around the turn of the year. And, although the performance since can scarcely be described as robust, it nonetheless has markedly assuaged the concerns that recessionary forces were mounting for the American economy as a whole.

The obvious question is, what went wrong with the recession forecasts or, more exactly, what went right with the economy? While analysts can never be certain of such things, there is at least presumptive evidence that a major reason, perhaps the key reason, is the marked change in inventory

behavior on the part of purchasing managers in manufacturing and elsewhere in the U.S. economy.

Most, if not all, past American recessions have been sparked, or at least aggravated, by large inventory swings. Purchasing managers, seeking to protect their production schedules, accelerated inventory accumulation as their suppliers' delivery lead times stretched out during periods of diminishing excess capacity. But the process of heavy buying put increasing pressure on suppliers' capacity, inducing still further lead-time extensions, which inevitably required still further increases in days' supply of inventories of materials on hand. This cycle generally led to inventories being built up at unsustainable rates, or to excessive levels often accompanied by strained corporate balance sheets.

Purchasing managers would then reduce forward orders to match, rather than exceed, prospective levels of materials consumption. Suppliers were then able to cut back on frenetic production levels which, in turn, set into motion declines in lead times promised to prospective customers and allowed those customers to reduce the days' supply of inventory required to protect their production schedules. That, not surprisingly, led to a still lesser flow of orders, lower production, and still shorter lead times.

In short, I am outlining the classic inventory cycle. That cycle, which has been a key element in American business history, obviously has not been evident on the industrial scene in recent years. The historical sequence apparently has been

attenuated if not broken, enabling purchasing managers to meet their production schedules throughout the expansion of the 1980s without the historic runup in lead times, accumulation of inventory, and its inevitable liquidation. Several explanations of the change suggest themselves.

The first, but not necessarily the most important explanation, has been the dramatic expansion of real-time inventory monitoring. The expansion of computer technology and rapidly decreasing costs of telecommunications has enabled management to become quickly informed of inventory patterns, by product and stage of processing, within a corporate complex and, to an increasing extent, beyond the factory gates to stocks in the hands of distributors and customers. This has fostered a reduction in uncertainty in inventory scheduling, which historically had probably led business to hold larger safety stocks than were otherwise required. Implicit in this trend has been increasing sophistication in transportation scheduling of the movement of goods and materials between plants and between production facilities and customers.

Another factor reducing uncertainties of product availability has been the broadening tendency of customers to provide suppliers in recent years with projected requirements well into the future. Moreover, sophisticated production techniques have improved quality reliability so that "just in time" deliveries are associated with a lower reject rate and, consequently, a lower required safety buffer than had earlier been the case.

Finally, and perhaps most important, the increasing ability of customers in the United States to draw on foreign facilities when domestic supplies become tight has kept average lead times on deliveries from accelerating as excess capacity began to disappear at domestic plants.

As a consequence, it is not surprising that average delivery lead times for production materials have remained at levels that in the past would have been consistent only with periods of substantial slack in domestic production facilities.

One indication of the success of inventory management techniques and tighter controls in the United States is that the proportion of materials and supplies in total manufacturing inventories has trended down since the late 1970s. Moreover, typical nationwide inventory-sales ratios, which we employ to measure the degree of potential inventory deficiency or excess, are becoming increasingly skewed by imported goods that find their way into our inventory system. For example, we estimate that the proportion of wholesale and retail trade inventories (marked down to factory gate values), which are foreign sourced, has risen from less than 20 percent in the early 1980s to around 25 percent currently. While heavy buildups of inventories of imported goods can precipitate cutbacks in domestic production, it seems likely that a large part of that adjustment falls on foreign facilities rather than domestic, although obviously there are a number of products for which there are multiple supply sources, both domestic and foreign.

Does all of this suggest that we have beaten the inventory cycle and, perhaps, the business cycle, as well? The immediate answer is, not likely. Historically, inventory cycles were precipitated by a perceived shrinking of excess domestic production capacity or potential commodity price increases for production and maintenance materials. It is perfectly rational for a purchasing manager to attempt to accumulate inventories, in terms of days' supply, as some function of the time it takes the manager to obtain additional materials from his suppliers. If worldwide stringencies in the production system were to occur, for example, and lead times, accordingly, were to stretch out, reasonable inventory management could still readily imitate the type of inventory accumulation and liquidation cycles that have plagued us in the past.

One, of course, would be hard pressed to find such indications in the current American supply/demand balances of materials. Nonetheless, I would not presume that the extraordinary changes that have occurred in inventory management in recent years have fundamentally altered inventory purchasing patterns in a manner that will eliminate, henceforth, any concerns we may have of inventory excess and inventory-induced recessions. Moreover, there are many reasons for business cycle fluctuations other than inventory movements. Although materials inventory excesses often trigger production cutbacks and generally exacerbate cyclical change, they can be far less important in governing the amplitude and extent of

business cycles than fluctuations in capital goods markets or residential construction, for example.

In fact, the broader forces of fluctuations in demand for products reflect a different type of inventory analysis, one looking at the ownership of, for example, cars and trucks on the road, the stock of residential buildings, the stock of office buildings, or the stock of capital equipment. In short, the physical parts of the balance sheet of the American economy can be viewed as inventories in a certain larger sense. The notions of deficiency and excess in such items affect the demand for goods and services and the levels of economic activity in ways not all that distinct from conventional inventories, although, granted, the time cycle is appreciably longer.

The globalization of international economic relationships is also affecting international capital movements. New technology--especially computer and telecommunications technology--is boosting gross financial transactions across national borders at an even faster pace than the net transactions supporting the increase in trade in goods and services. Since the latter will in the decades ahead presumably grow faster than nominal GNP, the growth in gross financial transactions in the context of downsizing and consequent globalization should be truly awesome.

Rapidly expanding data processing capabilities and virtually instantaneous information transmission are facilitating the development of a broad spectrum of complex

financial instruments that can be tailored to the hedging, funding, and investment needs of a growing array of market participants. These types of instruments were simply not feasible a decade or two ago.

Some of this activity has involved an unbundling of financial risk to meet the increasingly specialized risk management requirements of market participants. Exchange rate and interest rate swaps, together with financial futures and options, have become important means by which currency and interest rate risks are shifted to those more willing to take them on. The proliferation of financial instruments, in turn, implies an increasing number of arbitrage opportunities, which tend to boost further the volume of gross financial transactions in relation to output and trade. Moreover, these technological advances and innovations have reduced the costs of managing operations around the globe, and have facilitated international investment.

Investment considerations also are playing an important role in the globalization of securities markets. As the world economies become increasingly intertwined, it is to be expected that both individual investors and institutions will raise the share of foreign securities in their investment portfolios. Such diversification provides investors a means of protecting against the prospect of depreciation of the local currency on foreign exchange markets and against domestic economic disturbances affecting asset values on local markets. As international trade continues to expand more rapidly than

global output, and as domestic economies become even more closely linked to those abroad, the objective of diversifying portfolios of international securities will become increasingly important.

Downsizing and globalization is a process that is inherent to the development of all of our economies: the industrial economies, the developing economies, and even the economies of Eastern Europe and the Soviet Union. In practice, these different economies have been affected in varying degrees by the downsizing and globalization process, and this helps to explain, in part, the noticeable differences in living standards.

The main parties in the downsizing process and globalization have, of course, been the enterprises in industrial countries. The evolving newly industrialized countries of the Far East, capitalizing on their ability to exploit the downsizing technologies of the 1980s, have also been active participants in this process, flourishing beyond expectations. Enterprises in most other developing countries as a rule have not been major players in this process, in part because of the inward-looking nature of their trade regimes. And the economies of East Europe and the Soviet Union, which have participated even less in the global economy, have been even further removed from these dynamic developments.

The downsizing process and the globalization of capital markets offer economies many benefits in terms of increased competition, reduced costs of financial

intermediation benefiting both savers and borrowers, more efficient allocation of capital, and more rapid spread of innovations. Clearly, those economies that are burdened with dated technology, that protect inefficient firms through tariffs, quotas, and subsidies, and that discourage savings and initiative will not derive the gains in living standards that the downsizing and globalization process is yielding to others.

Recent developments in East European countries and the Soviet Union reinforce the lessons that centrally directed economic plans and import-substitution approaches to growth and development do not yield sustained positive results in terms of economic welfare of the population. Over a period of decades, there has been a very clear test of effectiveness between economies that selected market-oriented and centrally planned approaches to growth and development. The results are unequivocal. Wealth is created by the imagination, innovation and effort of many individuals pursuing their own enlightened self interest in market economies. Countries whose governments provide the appropriate environment and incentives that foster those forces will be the ones that will prosper.

Perhaps the major difference between a centrally planned economy and a market-oriented one is that, in the latter, the economic players are forced into competition with one another by the need for economic success and survival. Businesses try to fend off competitive pressures, but, ultimately, in effective market systems, competitive price and wage pressures prevail. Centrally planned economies, on the

other hand, view competition as destructive and hence create state monopolies to carry out a nation's business. In a competitive economy, as the economic value of facilities deteriorates pressures for replacement emerge. In contrast, in planned economies, with no competitive signals on the true costs of resources, capital is grossly misused, with facilities generally employed until they can no longer function. In planned economies, energy use is inefficient and, surprisingly, even in one area where non-market forces have prevailed, i.e., pollution control, market economies have done far better.

Restructuring of centrally planned economies will be difficult. According to no less an authority than Soviet President Mikhail Gorbachev earlier this month, "... (W)e found... the old economic system rejected any kind of progress... There was no incentive, there was no motivation for people to work... . We continued to retain the entire old superstructure of economic management. ...(T)hat system which evolved over the decades... was really a kind of... clamp on our entire economy... (I)t made impossible any initiative, any decision-making at various levels... . (W)e have to radicalize that transition to new forms of economic management."

The increased ease with which economic goods and services can spill over national borders creates a major dilemma for the political structure of a country inclined to inhibit such movement. The political leadership in order to keep pace must increasingly accelerate the protectionist

blocking of goods and services, or open their economy to a more market-oriented, and less domestically regimented, system.

Advancing technology, which is at the root of recent globalization, is also creating pressure on autarkic systems in areas beyond the realm of international trade in economic values. The development of satellite technology, for example, and the ability to transmit television pictures across national boundaries undercut political censorship of the media. Governments must then either acquiesce in new political freedoms or produce increasingly harsh regimes.

Recently, however, the political response to these technological developments has been liberal. The increasing international economic pressures of the decades since the end of World War II have exposed the economic inadequacies of the centrally directed economies of the East European countries and, to a somewhat lesser extent, statist economies in the West as well.

The disillusionment by the population and some of the leaders of the East European countries and the Soviet Union in the inefficient and inward-looking economic structures of their economies has, no doubt, been the principal motivation for these countries' efforts to transform their economies. The road ahead for these countries is going to be difficult and uphill, in part because their economies will have to catch up and compete with economies that have been at the forefront of the downsizing and globalization process while they by-and-large have been bystanders. However, it would be most

unfortunate, both politically and economically, if the transformation effort were not to succeed.

In order for East European countries and the Soviet Union to participate, contribute, and benefit from the globalization of production, trade, and finance, it is essential that they open their economies to a more market-oriented, and less regimented, economic and financial system.

East European countries and the Soviet Union can benefit from the competition of increased trade with the rest of the world. Increased exports help relax the financing constraints that these countries face, and, with increased foreign exchange, can accommodate increased imports as well as meet other financing requirements.

The ability of the world economy to absorb increased exports from East European countries and the Soviet Union should not be underestimated. As noted earlier, world trade is growing, and will likely continue to grow, at a considerably faster pace than the growth of world domestic demand, with world trade in the high-technology goods advancing most rapidly. Many Asian economies have succeeded in channelling their resources and talents into the production and exports of high-value goods, and have prospered as a result. Given the vast resources of some of the East European economies and the Soviet Union, there is no reason why these countries cannot similarly substantially expand their exports in the years ahead. But the right policy environment obviously must be established and maintained.

It also must be kept in mind that in order for these countries to expand their exports, their trading partners must keep their markets open. The avoidance of trade protection and the reduction of existing trade barriers, therefore, should be high on the international economic policy agenda.

To be sure, sound economic policies and open international markets are a necessary but not a sufficient condition for countries' economic development. Adequate financing is equally important. One of the challenges for the 1990s will be to mobilize and attract the capital that is needed for the growth and development of East European economies and the Soviet Union. The private sectors of the industrial countries, no doubt, will play a key role in this effort. This challenge occurs in the context of an intensifying global competition for savings. Those nations that maintain sound policies and that open and restructure their economies will gain attention and favor. Those that do not embrace such policies will have serious problems.

Capital is likely to flow to the former countries from foreign investors who seek opportunities to invest in industries in these countries. However, the climate must be conducive and hospitable to cross-border investments. "Climate" here means not only rules governing individual investments and repatriation of earnings and principal, but also the macroeconomic and microeconomic environment. A low inflation environment, fostered by sound economic policies, is critical for countries not only to mobilize their domestic

savings, but also to attract foreign capital. Profit calibrating commercial interests will determine where foreign investors will place their investments.

Policy in some industrial countries must also play a role in facilitating the expansion of savings through lower budget deficits and in dealing with uncomfortably high rates of inflation. One consequence of the squeezing down of inventory positions noted above in connection with the downsizing and globalization process is that if demand were to pick up and if evidence of worldwide tightening in goods markets were to emerge, including episodes of shortages, then lead times are likely to begin to stretch out. This, in turn, is likely to lead to a classic acceleration of inventory investment experienced many times in the past. While such a set of events is positive as far as the expansion phase of economic activity is concerned, given capacity constraints in a number of product lines, it also carries with it unfavorable implications for inflationary pressures.

High rates of inflation distort resource allocation, discourage savings and investment, and erode a country's international competitiveness. And, as many of you know so well from your own history, if inflation is allowed to run out of control, it also unleashes social and political forces that could be destabilizing and destructive not only for the country concerned but also for the rest of the world.

The surest way to have an economy move to recession is to allow inflation to get out of control. U.S. monetary

authorities, and those in the principal industrial countries, are aware of the dangers and risks of inflation and the high costs of correcting inflationary excesses. It, therefore, is essential that the policies that we pursue, not only in the monetary area, but also in the fiscal and trade spheres, are directed to prevent these inflationary forces from establishing themselves. We have made considerable progress in achieving this objective, and it is in our power to further consolidate this progress.