products had gone from about $4 to $19 billion during this period. However, when I examined the composition of that surplus, I discovered that the vast increase in those surpluses has been to OPEC countries and other LDC countries. However, if you look at our trade in those technology intensive products with West Germany and Japan, here is what you see. In the case of Japan in particular, this deficit has gone from $2 billion in 1970 to $13.5 billion on the higher technology products since 1970.

And there are just a couple of additional points I would make about this technology situation in terms of patent trends. I agree with Professor Mansfield that patents are hardly a universal measure, but they must indicate something; at the very least that some people decided some idea was worth at least going to the Patent Office and getting a patent for if nothing else. In the last ten or eleven years our patents in absolute terms have gone down about 10 percent or so. Also, if you look at the four areas of high technology that have traditionally been an important source of exports for this country and, of course, internal strength—machinery, electronics, communication, and scientific instruments—in those fields generally our patents have gone either flat or down in the last ten years. But Japan's have gone up 400–500 percent, and West Germany's have risen substantially too. Now clearly theirs are from a much lower base, but I believe there is something important going on here in this technology innovation front.

There is another thing that has not been publicized, but I hear about it more and more from businessmen. Increasingly I hear that foreign manufacturers, particularly in Japan and in Germany, have an added degree of quality and reliability in their products that gives users, particularly less sophisticated users, a sense of added confidence in the use of those products. For example, a recent study on Japanese versus United States color television sets strongly suggests that the Japanese have achieved the twin objectives of added reliability and lower production costs.

If you go back to 1970, and I am focusing on manufactured goods because I think not as much study has been done in that area as should have been, it may interest you to know that the United States and West Germany were roughly identical in respect to absolute levels of exports of manufactured goods in that year. However, today, we are now at $94 billion, and the Germans are now at $125 billion, or roughly a third higher than we are in absolute terms at the present time. The Japanese are now where we are. Back in 1960 they were only at $4 billion; we were exporting four times as much in goods as they were. I am simply trying to make the point that in the manufacturing exports arena something very significant has happened.

I don't know what we can do about exports, and I am sure in this group there may be a debate as to whether we should do anything.

Exports have always been a "mego" subject in America. One of the few intellectual contributions of the Nixon Administration, some might say the only one, was the concept of mego (mego stands for "my eyes glaze over"). Exports are clearly not a mego subject in other countries. George Shultz had Helmut Schmidt in California this summer and it fascinated me to listen to the informed way in which the chancellor talked about his country's exports. He did not consider it irrelevant or embarrassing or trivial to know the major export orders that his country was trying to get. He seemed briefed on all the major deals to the United States. It is not a subject that America's leaders have displayed much interest in.

To take another example, I was asking Paul Samuelson whether selling savings bonds was as unrespectable in classical economic circles as ever, and he assured me he thought it was. We spend an enormous amount of time in the Treasury and other places selling savings bonds. I wonder what would happen if we spent as much time in the export areas. While in some of our more sophisticated companies at the chief executive officer level the export potential is perceived, I think there are still quite a few companies that are shocked when they see how much of the exports of a lot of their competitors are to the Third World.

Let me briefly touch on the problem and potential of the Third World and its implications. You perhaps know that our exports are growing much faster to LDCs than to the rest of the world. But many people are surprised to know that in some of our more sophisticated industries, such as chemicals and machinery, LDCs are now accounting for 40 percent to 50 percent of the total exports to the United States. An OECD study showed that all the growth of manufactured goods in the last four or five years was to LDCs. This raises the whole engine of growth concept and whether LDCs could be a source of less inflationary growth for the developed countries.

A key problem, however, is the one of the ballooning debt and deficits of the Third World and their implications to the global economy. I have spent about ten weekends in the past two years, not too happily, in some state of schizophrenia, paranoia, or other assorted psychic disorders, on the Willy Brandt Commission. Two-thirds of the membership, very able members, may I say, are from the Third World from such exotic places as Tanzania and Upper Volta. But in the course of our work we asked the IMF to look at the oil-related LDC deficits and do a projection to 1985. You may or may not have much confidence in these estimates, but they point out that whereas the internal debt of these countries now aggregates about $250 to $300 billion even before the last two price increases of the last three weeks, it is conservative to estimate that this number will be up to at least $350 billion by 1985. Thus, there are IMF estimates now, that have not been published, of $600 to $700 billion in aggregate debt of oil-importing LDCs. This raises to me significant questions about whether the private banking system can or should really fund this level of proposed debt, and if they don't can their economies adjust to these relative prices? One of the ideas I tried to promote on this Brandt Commission is that among the brilliant public relations achievements of the last ten years has been that of the OPEC countries portraying themselves as brothers and friends of the South in the North-South confrontation. And, I wonder why the OPEC countries could not be induced to broaden their portfolio and do some direct lending to the non-oil-developing countries—or at the very least share some loan guarantees, and of course contribute much more in direct aid. This problem of aggravated debt is one I don't think we can ignore.

Third, I don't think we can have any discussion of international economics without discussing the very fragile supply of oil from OPEC over the next several years. Conventional estimates of how much oil we would be getting from OPEC in the 1980s were, on the low side, 35 million barrels and, on the high side, 45 million barrels. But I think it is clear that we may be in the range of the high twenties for a whole series of reasons. I think OPEC has discovered it can produce less and get more. Also, the young princes want to have something to do later in their lives.

There are very important political and psychological elements that have not been discussed but which I think are very real. It is now clear that some of the leaders of certain OPEC countries may feel their lives, both politically and psychologically, may be at stake if progress isn't made on this Palestinian issue, and that may have a tendency to "focus their minds" with regard to the use of the oil weapon. Thus, I don't see how we can talk very seriously about the future of the global economy without facing the very clear possibility that oil supplies may be both inadequate and very unstable. I hope that the current situation in Afghanistan helps to clarify in our minds the fact that reasonable security of oil supplies is clearly a political and military security issue, and not simply an economic question of price.

Finally, I can't resist the temptation to say something that George Shultz and Arthur Okun have alluded to when they talk about the political landscape of the United States. We have an incredible tendency in meetings like this to preach to the choir and talk to each other about the need for investment, productivity, savings, and the like. I think the truth of the matter is that it is easy for me and perhaps Walter Wriston and others to blame the television media and the news media for some of our problems. They share in it, but I think the business community has to take a great deal of responsibility for the attitudes that exist in the public about business and investment. I think the Business Roundtable has done a fine job in Congress, much better than they used to, but I think we are just doing a D-minus job with the public. When I say this to some of my business friends they tell me they have given X number of speeches in the last six months on free enterprise to several public high schools in the area. What we seem to forget is that networks are *news* media, and news media are not interested in dull platitudinous speeches on the free enterprise system. They are interested in *news*. And businessmen have a remarkable capacity when central issues come up to become silent.

I was reminded of this on the Chrysler matter recently. Forty-two out of forty-three or forty-four of the Business Roundtable in their private sessions talked to each other about what a horrendous precedent the British Leyland action set. At least a statement was put out, but not signed by any individual. It was a kind of public statement, but Senator Proxmire's Committee tells me they had great difficulty getting individuals to testify on the issue. Walt Wriston's testimony was vastly more relevant, courageous, and eloquent as usual than mine, but I finally also decided that something had to be said about this. And I think some changes were made at least at the margin in the way the Chrysler plan is going to be implemented, such as instituting review boards and financial viability tests. All I am trying to suggest is that I think it is too easy for businessmen to suggest that there is a problem "out there" about perceptions of the business system. Until some of us in the business world forget some of our collegial relationships with each other (in the case of the Chrysler matter, two of our esteemed competitors told me candidly that they were afraid to say anything because some of their clients would not like it). We will always have a reason when a public, controversial issue comes up to say nothing. I really think that we have to look at the so-called media problem as resulting from our lack of courage and willingness to say anything that is newsworthy as another source of the problem.

Summary of Discussion

A variety of topics in international economics were probed. Walter Wriston strongly challenged the notion that growing LDC debt represents a serious threat to the world economy. The fears of widespread defaults by LDCs after the 1973 oil price increase were widely held. Calmer voices arguing that world financial markets would function well could not be heard in the din. But the fact is that the financial markets operated as Wriston expected, and no serious problems of default have arisen. The record of debt is better for the LDCs than for many United

States industries. Indeed, the dollar and gold reserves of the non-oil-exporting LDCs are $30 billion greater than before the OPEC price increase. And it is as true today, in Wriston's view, that the "burgeoning" LDC debt in coming years is a nonissue. Debt rescheduling by LDCs is not a matter for hand wringing; it is what the United States Treasury does every time it sells a treasury bill. The only real economic issue in Wriston's view is whether the exports of LDCs and their cushion of gold and dollar reserves will continue to give them access to financial markets. And that is a very different issue from a "$600 billion problem." Peter Peterson disagreed to this extent: he said this needed to be looked at on a country by country basis. He believed there might well be countries, perhaps a considerable number, which would have significant problems getting financing.

David Packard offered an optimistic appraisal of the increasing ability of firms to export to the Japanese market. In the past year, alone, the Hewlett-Packard Company has doubled its exports to Japan, to a level that is almost comparable to its exports to Germany. What remains for American businesses is that they become more aggressive in pursuing openings in the Japanese market.

Richard Caves stressed that many apparent problems of United States competitiveness and the decline in the United States share of world output and trade, merely reflect developments in the rest of the world. It is the rapid growth abroad, not necessarily our poor performance, that underlies the drop. Peter Peterson disagreed. He believed that our performance in share of manufactured exports, while improving recently, had reflected both the serious relative decline in relative growth in manufacturing productivity and less effective export programs by United States companies.

References

Amano, A. 1979. Flexible exchange rates and macroeconomic management: A study of the Japanese experience in 1973–78. Mimeographed. Kobe University.

Baldwin, R. E. 1971. Determinants of the commodity structure of U.S. trade. *American Economic Review* 61 (March): 126–46.

Becker, Gary S. 1964. *Human capital.* New York: Columbia University Press.

Bharadwaj, R., and Bhagwati, J. 1967. Human capital and the pattern of foreign trade: The Indian case. *Indian Economic Review*, n.s., 2 (October): 117–42.

Branson, William H. 1976. "Leaning against the wind" as exchange rate policy. Mimeographed. Geneva: Graduate Institute of International Studies.

———. 1979a. Exchange rate dynamics and monetary policy. In *Inflation and employment in open economies*, ed. Assar Lindbeck. Amsterdam: North-Holland.

———. 1979b. Monetary and fiscal policy with adjustable exchange rates. Mimeographed. Study prepared for the U.S. Congress, Joint Economic Committee.

Branson, William H.; Halttunen, H.; and Masson, P. 1977. Exchange rates in the shortrun: The dollar-deutschemark rate. *European Economic Review* 10 (December): 305–24.

Branson, William H., and Monoyios, N. 1977. Factor inputs in U.S. trade. *Journal of International Economics* 7 (May): 111–32.

Buiter, Willem H. 1979. *Temporary equilibrium and long-run equilibrium.* Outstanding Dissertations in Economics series. New York: Garland.

Fels, G.; Schatz, K. W.; and Wolter, F. 1971. Der Zusammenhang zwischen Produktionsstruktur und Entwicklungsniveau, Versuch einer Strukturprognose für die westdeutsche Wirtschaft. *Weltwirtschaftliches Archiv* 106, no. 1: 240–78.

Giersch, H. 1979. Aspects of growth, structural change, and employment: A Schumpeterian perspective. *Weltwirtschaftliches Archiv* 115, no. 4: 629–52.

Hirsch, Seev. 1965. The United States electronics industry in international trade. *National Institute Economic Review*, no. 34 (November): 92–97.

Hufbauer, Gary C. 1970. The impact of national characteristics and technology on the commodity composition of trade in manufactured goods. In *The technology factor in world trade*, ed. R. Vernon, pp. 145–232. New York: Columbia University Press.

Keesing, Donald B. 1966. Labor skills and comparative advantage. *American Economic Review* 56 (May): 249–58.

Kenen, Peter B. 1965. Nature, capital, and trade. *Journal of Political Economy* 73 (October): 437–60.

Kindleberger, C. P. 1976/77. U.S. foreign economic policy 1776–1976. *Foreign Affairs* 55, no. 2:395–417.

Kravis, Irving B. 1956. Wages and foreign trade. *Review of Economics and Statistics* 38 (February): 14–30.

Leontief, W. 1953. Domestic production and foreign trade: The American capital position re-examined. In *Readings in international economics*, ed. R. E. Caves and H. G. Johnson. London: George Allen and Unwin.

———. 1956. Factor proportions and the structure of American trade: Further theoretical and empirical analysis. *Review of Economics and Statistics* 38 (November): 386–407.

Ohlin, B.; Hasselborn, P. O.; and Wijkman, P. M., eds. 1977. *The international allocation of economic activity*. New York: Macmillan.

Servan-Schreiber, J. J. 1967. *Le défi americain*. Paris: Denöel. Published in English as *The American Challenge*. New York: Atheneum, 1979.

Shonfield, A. 1976. Introduction: Past trends and new factors. In *International economic relations of the Western world 1959–71*, ed. A Shonfield. Vol. 1. *Politics and trade*. London: Oxford University Press.

Stern, Robert M., and Maskus, K. 1979. Determinants of the structure of U.S. foreign trade, 1958–76. Mimeographed. University of Michigan.

U.S. Department of Commerce, Bureau of Economic Analysis (BEA). 1977. *U.S. merchandise trade—exports and imports—classified by BEA end-use categories, 1965–1976*. Washington, D.C.: Government Printing Office.

U.S. Department of Commerce, Office of Business Economics (OBE). 1970. *U.S. exports and imports classified by OBE end-use commodity categories, 1923–1968*. A supplement to the *Survey of Current Business*. Washington, D.C.: Government Printing Office.

Vernon, Raymond. 1966. International investment and international trade in the product cycle. *Quarterly Journal of Economics* 80 (May): 190–207.

Wells, Louis T., Jr. 1958. Test of a product cycle model of international trade: U.S. exports of consumer durables. *Quarterly Journal of Economics* 83 (February): 152–62.