

remained unchanged between 1985 and 1990, at 37%.⁸¹ This indicates that there has been no deindustrialization of the U.S. relative to other OECD countries. Indeed, countries do not forge ahead or catch up by stealing jobs in high value added industries from others, nor do they fall behind by losing jobs in high value added industries. The U.S. has not only remained strong in manufacturing, but has expanded its lead over its close rivals.

The U.S. dominance of world commerce of the 1950s and early 1960s is over, not because the U.S. performed poorly, but because other nations caught up (both in terms of technology and capital investment), as intuitively they should have once the unique immediate post War period had ended. The world economy is now characterized by growing international specialization and differentiation: different nations are the productivity leaders in different industries. Yet, the converse of this is that the U.S. economy has not entered a period of secular decline, but rather has taken a position of first among equals.

4.2 The Non-Issue of U.S.-Japan Rivalry in R&D

The U.S. and Japan both enjoy comparative advantage in R&D intensive industries. Japanese companies have high comparative advantage in office equipment and in telecommunications equipment, but low in aircraft, pharmaceuticals, agricultural chemicals, and steam engines and turbines. U.S. comparative advantage is by far the highest in aircraft, followed by medical equipment, and steam engines and turbines.⁸² There appears to be a complementary pattern of high technology specialization. The U.S. tends to specialize in science-based industries,⁸³ while Japan has the advantage in product-specific and applied, rather than fundamental, research activities.

Cross-investment between the U.S. and Japan in R&D activities has grown considerably in recent years. Total annual R&D undertaken by the U.S. affiliates of Japanese firms rose from US\$300 million in 1987 to approximately US\$750 million in 1989. This

⁸¹ OECD, *Indicators of Industrial Activity*, various issues.

⁸² B. Belassa and M. Noland, *op. cit.*, 1988. This result is also confirmed by Gene M. Grossman, "Explaining Japan's Innovation and Growth: A Model of Quality Competition and Dynamic Comparative Advantage", *Bank of Japan Monetary and Economic Studies*, (8) 1990: 75-100.

⁸³ These industries are characterized by large firms capable of financing the basic research necessary for innovation. Their R&D is also reinforced by the relatively open U.S. university system. In contrast, the private Japanese firms operate in a relatively closed system. This accounts for an asymmetry in the access to R&D in each country by the other.