

By the mid 1970s, Japan and Germany had achieved roughly 90% of the TFP level of U.S. manufacturing and the dispersion among all OECD countries was minor. After 1973, convergence of labour productivity within industries slowed down considerably (and that of TFP essentially halted). From the mid 1970s onward, as the advantages of backwardness exhausted themselves, convergence in capital intensity (as measured by capital-labour ratios) became the dominant influence on the modest economic growth at the aggregate level. This period was also characterized by higher variation in capital intensity, technology levels and labour productivity at the individual industry level than at the aggregate manufacturing level.

The greater similarity in overall productivity levels across advanced countries than in different industries, indicates that different countries have specialized and have thus emerged as productivity leaders in different industries. The same is true for capital intensity. Countries have, through markets, chosen different industries for their main investment in new technology. This explains the emergence of countries other than the U.S. in leadership roles in both technology and labour productivity frontiers. In different countries, productivity growth has been concentrated in different industries. Japan has done well in iron and steel, France and Italy in textiles, clothing and leather products, and Germany in transport equipment and machinery. Industrial mixes are different, but they cannot be characterized as specializing in high value added versus low value added industries.

International trade appears to play a crucial role in the productivity convergence process. The manufacturing sector, which is the most open in trade and investment, consistently showed, relative to utilities, and community, social and personal services, the least variation in productivity levels among all the sectors of the industrialized economies. Moreover, during the 1960s *unit-cost differences* between countries were dominated by real wage differences, but *by 1982 the difference in TFP levels was the dominant factor.*

It is interesting to note that shifts of employment toward high productivity sectors with high value added per worker, played almost no role in the convergence of aggregate labour productivity among industrialized countries. This finding answers, with a resounding no, the question: Has Japan's aggregate productivity catch-up been achieved by gradually edging the U.S. out of key high value added industries?

Japan caught up with the U.S. because its productivity, relative to U.S. productivity, grew in every industry. The same basic result holds for the other OECD countries. Moreover, the extent of the catch-up varied quite considerably among Japanese industries. In a few sectors, Japanese productivity had surpassed or come very close to the U.S. level by