

case for an industrial policy. The wage premium may even exacerbate the welfare costs of protection.¹⁸ Moreover, while some firms in high technology sectors earn high profits, others fail.

- **Encouraging Linkage Industries**

Some have argued that certain industries of the economy have large inter-industry linkages. Installing such industries could stimulate the development of both local suppliers (backward linkages) and new local customers or users of the product (forward linkages).¹⁹ The popularity of the linkage argument stems from the feeling that producing intermediate goods that can be used in a variety of sectors is a more fundamental economic activity than producing consumer goods that simply provide satisfaction to households. It is hard to escape the feeling that the makers of steel or computer chips are doing something more serious than the makers of toys or potato chips. For example, some observers argue that Japanese and French subsidies to investment in steel, by leading to cheaper steel, encouraged growth of all those industries that use steel, such as shipbuilding and autos. Sectors with high linkages that diffuse new technologies over a broad spectrum of industries have been dubbed "strategic sectors".

The linkage argument is that the government should direct more investment into steel as opposed to autos or shipbuilding than the private market would have. Will this raise national income? In the absence of a market failure, economic theory indicates that it will not. A dollar of capital services reallocated from autos to steel lowers the value of auto output by one dollar and raises the value of steel output by one dollar. The extra steel output can now be used to raise auto output back to its original level, but not higher; this only confirms that the original allocation was optimal.

It is not clear that promoting strategic sectors is a "magic potion" for economic success. There is no evidence that one industry (microchips) or set of industries (computers and related industries) is inherently superior to another. One recent study finds that different countries have achieved high productivity levels on account of specialization in very different industries. Even among the NICs, the emphasis on heavy, capital-intensive industry has produced relatively little advantage, as the experience of South Korea (steel) and Singapore (petroleum refining) attest.

¹⁸ Jaime de Melo and David Tarr, "Industrial Policy in the Presence of Wage Distortions: The Case of the US Auto and Steel Industries", *International Economic Review*, (34) November 1993: 833-851.

¹⁹ The term comes from development economics, see Albert O. Hirschman, *Strategy of Economic Development*, New Haven: Yale University Press, 1958.