The Automobile Industry in North America and Japan*

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For those of us in the industrial heartland of North America the last year has been a frustrating time—a time of self-doubt, perhaps even self-flagellation. Why can't we be clever like the Japanese? Why don't we save and invest more? Many remedies have been proposed and some may really help—such as better labor-management relations, improved tax policy, reduced regulation, greater use of robotics, more emphasis on product quality. In a recent analysis[1] Professor Kent Calder of the Harvard University Department of Government has implicitly suggested another: learn from the success story of Japanese government economic policy.

Just One Look, Is That All It Took?

Professor Calder suggests that government policy has been successful in Japan because there has been less; they didn't attempt to have an elaborate bureaucracy providing detailed supervision of economic activity. Who could disagree with that? He suggests that, rather, what was provided was a set of more diffuse encouragements—an environment in which the truly successful firms could flourish. Yet once we pass his basic "minimalist" premise, what we discover is that the government he describes has pursued an active program of major subsidies in such forms as selective accelerated depreciation write-offs, subsidies for scrapping obsolete equipment, concentrated government efforts for "strategic" industries (steel, energy, shipping), forcing producers out of low value-added industries by allowing a flood of imports (and by implication, *not* allowing a flood of imports into other, high value-added industries), and discouraging "non-essential" consumption of petroleum.[2]

Popular description of U.S. policy as protectionist doesn't really fit for autos. Research by international trade economists shows that the U.S. had and continues to have exceptionally low levels of effective tariff protection. In contrast, our trading partners had and continue to have high rates of protection for autos.[3] Further, a recent report by the Congressional Budget Office concludes that selective credit allocation by the Japanese government and banks has been an important policy tool for the growth of chosen industries. A similar view is offered by Ryutaro Komiya, who argues that there are two groups of export industries in Japan: one, those industries such as television, motorcycles, and cameras, which were able to stand up by themselves with little government protection or planning; the other, those industries such as steel, chemicals, autos, and shipping, which have received and continue to receive subsidies.[4] One method of subsidization has been the use of selective access to credit.

What all this amounts to is large-scale government intervention to stimulate favored industries and perhaps favored firms versus other industries and firms not in favor. If such an active program as Calder describes for Japan were even contemplated in North America, it is certain that a majority of economists would rightly object on the grounds that excessive intervention would simply create distortions. The favored sectors would flourish, but this would occur at the expense of the nonfavored sectors.

International Tax Policy—Subsidies Continued

A major source of continuing government-induced distortion, which Calder and many others have completely overlooked, is in the area of Japanese international tax policy. Most industrial nations with which we trade and compete rely on a value-added tax or commodity taxes to raise revenues for a substantial share of government finance. This means that, in general, they have a smaller share of government revenue derived from corporate income taxes, personal income taxes, or payroll taxes (such as Social Security taxes). The typical level of the value-added tax or tax on manufactured commodities in these countries is about 10-15 percent. Under the provisions of the General Agreement on Tariffs and Trade (GATT) a country may exempt exports from such taxes on the grounds that taxes be placed on goods at destination (location of consumption). Further, these countries impose value-added or commodity taxes on imports on the same principle of taxes based on destination of goods.

In the example of trade between the U.S. and Japan, where Japan relies on commodity taxes which exempt exports but are imposed on imports, the U.S. manufacturers are disadvantaged by our unwillingness to use a similar system.[5] Goods manufactured by Japan and our other trading partners and exempt from their tax upon export are not subject to a destination tax of a similar type or magnitude when they arrive in the U.S. Further, our ex-

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[1]Kent E. Calder, "Japan's 'Minimalist' Government," *Wall Street Journal*, Friday, February 13, 1981.

[2]In the U.S. it has been common practice to have two-tier pricing of energy with prices lower to consumers and higher to firms. In contrast consumers have paid a higher price while industry has paid a lower price in Japan.

[3]For the 1960s the protection rate has been estimated as 5.1 percent for the U.S. In contrast, rates for the Common Market countries, England, and Sweden were in the 30 to 40 percent range. Japan led the competition with a protection rate of 75.7 percent. See Bela Belassa, "Tariff Protection in Industrial Countries: An Evaluation," *Journal of Political Economy*, December 1965, pp. 573-94. Though the U.S. currently has a nominal tariff of 2.9 percent, effective protection rates are probably zero or even *negative*. In contrast, while Japan now has a zero tariff on auto imports, it has substantial rates of effective protection by virtue of *selective* commodity taxes on imports as well as non-tariff barriers to distribution in Japan.

[4]Ryutaro Komiya, "Planning in Japan," in *Economic Planning East and West*, Morris Bornstein, editor (Cambridge, Mass.: Ballinger, 1975).

[5]The commodity tax on a typical small car (1600 cc engine) is 15 percent in Japan. It is scheduled to increase to 17.5 percent. In addition, there is a local sales tax of 5 percent and annual road taxes based on engine displacement and car dimensions.

ports are not allowed exemptions from any taxes—corporate income, personal income, or payroll—imposed on producers and workers in these industries.

A standard economic argument is that in such a regime the apparent distortion toward what would appear to be a flood of imports into the U.S. is offset by a change in the exchange rates. Efforts by U.S. consumers to purchase cheap (tax exempt) imports are thwarted because our non-tax-exempt goods look less attractive to foreign buyers, and as a result the value of the dollar falls, making imports harder for us to buy. No doubt there are some exchange rate offsets, but it can hardly be claimed that movements in the overall exchange rate would reverse the industry-specific distorting effects of the existing tax system.

Many industrial countries with which we trade, such as Japan, exempt certain commodities from any import tax. Specifically, subsequent to the Tokyo round of trade negotiations, "raw materials" entering Japan are completely exempt from commodity (import) taxes, while manufactured goods are not. What this tax exemption does (along with subsidized ships) is help export oriented industry—manufacturing, in the case of Japan. Raw materials enter Japan tax free and the manufactured goods leave exempt from commodity taxes (and local sales taxes). Manufacturing of export goods therefore expands and draws away domestic inputs (labor force) from the contracting non-traded sectors (domestic services, housing, and so on). Exchange rates adjustments do not offset *selective* import taxes designed to favor the export sector in Japan.

Cheap Cars, Expensive Lunches, and Big Mac Prices in Tokyo

The price of goods in the export industries of Japan is low compared to goods in their non-traded sector. A naive argument is that this is explained by productivity differences: it is alleged that the rapid growth of productivity in the export sector has led to these lower prices. There are numerous deficiencies in productivity statistics, and in the auto industry many of the productivity statistics are based on final assembly plants; but this is not a good indicator of total productivity in autos, particularly when comparing North America and Japan. In Japan the marketing firms specialize in final stages of production (Toyota has only 47,000 employees), and their industry has realized substantial productivity growth at the assembly stage. However, if the industry comparisons are at lower stages of vertical integration, relatively small differences appear between the two countries. Recent analysis shows that motor vehicles are one of the fastest productivity growth industries in the U.S., averaging 6.0 percent annual productivity growth over the period 1974-78 (see Table 1).

To finance essential public services and income redistribution in the countries subsidizing exports, there necessarily is a larger relative tax burden on the shrunken non-traded sectors of the economy. Because these are often characterized by inelastic demands, a large share of the tax burden is passed on to their consumers in the form of higher prices. The goods and services in the non-traded sector become a general tax sponge which the government squeezes out to finance essential public services (education, defense, transportation). This leads to other kinds of subsidies to the export sector with even more expensive goods in the non-traded sector than would have been the case without the export-stimulating policies.

Groups which gain in the U.S. are import buyers, and groups which lose here are those in the industrial sector which would have produced the goods that were imported instead. To the extent that labor is mobile within the U.S. it will migrate to the non-manufacturing, non-traded sector (e.g., the service industry), and in equilibrium there are too many resources in these sectors, the exact opposite of the shortage of resources in the non-traded sector of the export stimulating country. Non-manufactured and non-traded goods thus become (relatively) cheaper in the U.S. In part, this explains why at official exchange rates our trading partners look exceptionally rich. Yet, if one attempts to buy a set of consumption goods, including the non-traded items, in these same foreign countries, they

Table 1. PRODUCTIVITY GROWTH AND VALUE ADDED PER WORKER IN U.S. MANUFACTURING

	Average Annual Productivity Growth (percent)			Standardized Value Added Per Worker Hour (average = 1.00)		
Manufacturing Industry	**1949-1965**	**1966-1973**	**1974-1978**	**1949-1965**	**1966-1973**	**1974-1978**
Food and Kindred Products	3.0	3.1	3.8	1.00	1.03	1.09
Textile Mill Products	5.1	2.5	4.6	0.45	0.58	0.62
Furniture	2.0	1.6	1.2	0.74	0.63	0.62
Petroleum and Coal Products	5.3	3.1	1.6	2.15	2.77	2.71
Chemicals	4.8	4.6	0.6	1.09	1.34	1.37
Primary Metals	1.7	1.1	−2.6	1.57	1.26	1.08
Fabricated Metals	2.3	1.7	0.9	1.00	0.92	0.85
Machinery, except Electrical	1.9	2.1	0.2	1.20	1.05	0.98
Electrical Equipment and Supplies	4.7	4.2	2.1	0.74	0.94	0.99
Motor Vehicles	*5.0*	*3.2*	*6.0*	*1.43*	*1.64*	*1.85*
All Manufacturing	3.0	2.6	1.7	1.00	1.00	1.00

Source: Congressional Budget Office calculations based on data from the Department of Commerce and the Bureau of Labor Statistics. Published in *The Productivity Problem: Alternatives for Action*, Congressional Budget Office, January 1981.

look far less affluent. Further, this analysis explains the observed tendency for much more rapidly rising prices in the non-traded sector of Japan than in the internationally traded sector. It is certainly consistent with the *Wall Street Journal* index of living costs in different countries—the price of a Big Mac. Apparently, Tokyo came out on top last year.

The Future

I do not want to suggest by these remarks that the only problem in U.S. reindustrialization is the international tax system or Japanese subsidies to their export sector. There are many other problems including insufficient managerial emphasis on production innovations, labor-management relations, the wage structure between the industrial and non-industrial sector, and tax and other work disincentives. Recent empirical work indicates that in our central manufacturing and heavy industrial sectors (e.g., autos, steel, railroads) wages have grown more rapidly than in other sectors of our economy during the 1970s (see Table 2). Although there are certainly important non-tax factors influencing production, the U.S. should adopt a tax policy that puts us parallel to our trading partners, and we should discourage them from following policies designed to subsidize particular export sectors.

My own belief is that we do have a longer run comparitive advantage in manufacturing autos and other heavier items, perhaps even great enough to ward off government-subsidized imports. This is because such goods make greater relative use of inputs which are relatively abundant in the United States (coal, oil, iron ore, water) with shipping via waterways on the coasts and the Great Lakes. These are inputs which have become scarce on a worldwide basis *subsequent* to the Japanese commitment to heavy industry.[6] They remain relatively expensive to transport in terms of their true costs rather than subsidized costs. In the case of autos two important inputs are iron ore and, now, (low sulfur) coal.[7] These are shipped via Duluth and from other sources on the Great Lakes. This makes the entire Great Lakes Basin a low resource cost region for certain types of manufactured goods. The transition to smaller cars will provide shipping capacity for coal since less will be needed for shipping iron ore. It appears that Good Fortune may have provided us with a sort of shipping subsidy, too. Of course, having potential cost advantages and exploiting them are not always the same.

Those who have explored the north shore of Lake Superior near Thunder Bay, Ontario know the outline of Sleeping Giant, a portion of the Laurentian Shield visible from thirty miles through the clear summer air. Will our sleeping industrial giant come to life again? This will depend on what course of action we choose. Foolish policy decisions by both the public and private sectors can prevent the development of a proper industrial mix, as can foolish policy decisions by our trading partners. The current international tax policy was established with the U.S. outside the general system of value-added taxes of her trading partners. This was rationalized on the grounds that there was a "dollar shortage" and thus a need to help other countries cope with this shortage. Times have changed. We now have flexible exchange rates, and dollar shortages certainly gave little meaning, if they ever did. It was in recognition of a changing world economy that the Nixon Administration attempted but did not succeed in establishing a U.S. value-added tax to bring our country in line with our trading partners.

If we do proceed to put ourselves on a more equal footing with our trading partners, it will take a while to understand and evaluate tax plans, including value-added taxes and tax treatment of raw materials exports. One simple policy would be to limit the extent to which a country can exempt exported goods from taxes of any kind. In the meantime our industrial sector is in an adjustment period and in direct competition with industrial sectors which are subsidized by their countries. I believe we should work out an international tax system which does not suffer from modern versions of mercantilism.[8] To prevent a major loss of industry in the interim, temporary protection of our manufacturing sector may be warranted. It would make the average Japanese citizen better off besides!

The long-run interest of people in the industrial heartland is best served by free trade. Yet, in the case of auto manufacturing, it would be farfetched to argue that free trade currently exists. Free trade is a two-way street, but our industrial trading partners have numerous tariff and nontariff barriers inhibiting the flow of automotive products. In the case of Japan, there are currently many ways in which the auto industry receives subsidies. The fact that such goods flow at all has been simplistically interpreted by many as demonstrating that free trade exists.

Table 2. PERCENTAGE WAGE CHANGE FOR SELECTED INDUSTRIES, 1970-1979

Industry	Percent Change
Basic Steel	150
Railroads	130
Cigarettes	124
Motor Vehicles	*115*
Laundries	89
Knitting Mills	83
Clothing Stores	75
Banks	62

Note: In comparison with the above figures, the Consumer Price Index rose 87 percent during 1970-1979.

Source: Bureau of Labor Statistics, *Employment and Earnings in the U.S., 1980.*

[6]This development proves that the "holistic" planning process which Calder describes is not necessarily clairvoyant. Record auto production in Japan has coincided with record payments for their raw materials and slowed economic growth.

[7]A straightforward way to meet, or to improve on, emission standards is to burn low sulfur coal such as that shipped via Duluth from North Dakota or other Western states. See William Ramsey, *Unpaid Costs of Electrical Energy* (Washington: Resources for the Future, 1979), p. 25.

[8]Adams Smith's *Wealth of Nations* was written to persuade us that policies designed to alter trade patterns by artificial means will diminish rather than increase a nation's real wealth. The logic of exempting exports from any significant tax is not obvious, particularly if taxes are used to finance essential public services. Most international trade models ignore the use to which tax revenues are put.