

MichU  
DeptE  
ResSIE  
D  
#263

**RESEARCH SEMINAR IN INTERNATIONAL ECONOMICS**

**Department of Economics  
The University of Michigan  
Ann Arbor, Michigan 48109-1220**

**SEMINAR DISCUSSION PAPER NO. 263**

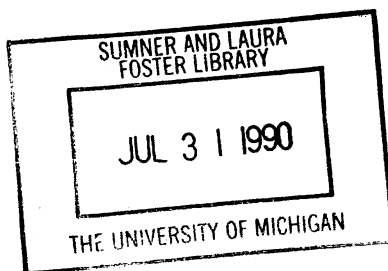
**HOW OPEN IS JAPAN?: COMMENT**

by

**Gary R. Saxonhouse  
The University of Michigan**

July 1990

Forthcoming in Paul R. Krugman (ed.), *The U.S. and Japan: Trade and Investment*,  
University of Chicago Press for the National Bureau of Economic Research.





Comment on Robert Z. Lawrence, "How Open is Japan?"

Gary R. Saxonhouse  
Department of Economics  
University of Michigan

Robert Lawrence reviews once again an issue which has been much debated throughout the 1980's. He asks whether Japan, either by government action or by the private exercise of market power, interferes with the access of foreign products and/or foreign firms to its domestic markets.

Lawrence makes a special effort to emphasize the distinction between access to the Japanese market for foreign products and access for foreign firms. Foreign firms may have access to the Japanese market, but they might exploit this access by marketing goods produced largely in Japan. Alternatively, foreign goods may gain access to Japan as the by-product of intra-firm transactions between Japan and its overseas affiliates without foreign firms necessarily having access at all. Lawrence argues persuasively which type of access foreigners have to the Japanese market has important implications for the economic welfare and income distribution of both Japan and its trading partners.

Japanese trade is distinctive, Lawrence finds, because exports to Japan have generally been shipped by foreign affiliates of Japanese firms. Whereas international vertical integration generally proceeds forward from producers to markets, in Japan it appears to proceed backwards from control of markets to sources of supply.

Lawrence thinks that this distinctive pattern of backward vertical integration in turn may be responsible for Japan's distinctively meager participation in intra-industry trade. Foreign firms are much more likely to produce new varieties of goods already manufactured in Japan. Domestic firms are less likely, however, to import products which compete directly with those they (or their associates) manufacture at home. Intra-firm shipments by domestic firms are thus less likely to result in the importation of new varieties produced abroad. Since intra-industry trade exists in considerable measure because of preference for variety, if imports are dominated by domestically-based intra-firm transactions it may not be very surprising at all that Japan's level of intra-industry trade is low.

In Japan, vertical integration not only moves distinctively backward from sales in domestic markets to foreign suppliers, it also proceeds forward from domestic producers to sales to users in overseas markets. Like Japanese imports, Lawrence finds that Japanese exports are also heavily dominated by intra-firm transactions. Japanese firms serve foreign markets by selling to their overseas subsidiaries. Such evidence, Lawrence notes, is consistent with well-known survey results by Mordechai Kreinin, which find that Japanese overseas subsidiaries, unlike other foreign subsidiaries, have an unusually strong preference to source their supplies from their home market.

It is not just that foreign firms play a distinctively small role in Japan's international trade. Lawrence also believes that foreign products have a distinctively low share of Japan's

domestic market. To be sure, there are quite a number of extensive studies of Japan's trade structure which reach different conclusions. Citing a paper by Koichi Hamada and T. N. Srinivasan, however, Lawrence finds such econometric evidence to be inconclusive on whether, after allowance is made for Japan's distinctive national endowments, particularly its lack of natural resources, there is really anything distinctive about Japan's trade structure.

Lawrence prefers to look directly at cross-national price differences to uncover whether or not foreign products' access to the Japanese market is restricted. While it is often difficult to assemble comparable price data cross countries, Lawrence feels enough evidence is available to conclude that there are large and persistent price differences between Japan and other countries that cannot be accounted for by higher distribution margins or real estate costs. He concludes that Japanese manufacturers are able to charge higher prices for the goods they sell in Japan than for the goods they sell in the rest of the world. In consequence, Lawrence notes it is not surprising that the profits of Japanese manufacturers as a proportion of value-added are unduly large by international standards. Potential arbitrage opportunities between the Japanese market and the rest of the world cannot be fully exploited.

While Lawrence finds considerable evidence that leads him to conclude that Japanese markets are not genuinely contestable by foreign products or foreign firms, he appears to be impressed by the capacity for change within the Japanese economy. He finds

that many of the barriers to the Japanese market operate like tariffs rather than quotas. They keep imported products expensive in Japan, but they do not prevent marginal responses to price and cost incentives. The exchange rate changes in the mid 1980's have resulted in a dramatic increase in the total volume of manufactured goods imported into Japan over the past four years. At a sectoral level where tangible barriers have been removed as a result of negotiations, significant increases in imports have resulted. Given the major shifts in Japanese behavior which have taken place over the past few years, Lawrence finds it surprising that some Americans feel so exasperated as to advocate an entirely new approach to dealing with U.S.-Japan economic relations.

#### Intra-Firm Transactions

While Lawrence's analysis, as always, is full of good insight and highly plausible, it is possible to disagree both with some of the inferences he draws from the evidence he has assembled and indeed with some of the evidence itself. While an unusually large share of Japanese imports are the result of intra-firm transactions, it is not at all clear that these transactions represent backward vertical integration in the way that term is normally understood. These intra-firm transactions, by and large, are neither the purchases of Japanese manufacturing firms, nor of Japan retailers, nor the sale of goods produced by their overseas subsidiaries and affiliates. While this may change in the 1990's, by comparison with firms in other major industrialized countries, firms with established positions in the

Japanese market have only rarely found it profitable to integrate backwards into production entities abroad. In 1987 only 5.3% of Japanese imports were intra-firm transactions of goods produced by Japanese entities abroad. By contrast, for the United States in 1987, no less than 18.4% of all imports were the result of intra-firm transactions of goods produced abroad by American subsidiaries and affiliates.<sup>1</sup>

Intra-firm transactions dominate Japanese imports only because Japanese importers are taking title to their goods abroad rather than when they reach Japanese ports. That Japanese importers happen to take title to their goods via separately incorporated subsidiaries in Los Angeles rather than directly in Yokohama, by itself, is not very significant at all. While issues may remain about the volume and composition of Japanese imports, a distinctively high proportion of the imports which do reach the Japanese market are produced by foreign-owned firms.

### Japanese keiretsu

Intra-firm transactions play such a large role in Japan's foreign trade because of Japan's giant general trading companies. In 1986, Japan's nine largest trading companies handled 66% of all Japanese imports. Is it possible that Japanese trading companies restrict what they import, not so much to protect their own domestic production, of which they do little, but rather to protect the interests of other firms to which they are tied through their keiretsu affiliation? In considering this possibility, it is important to keep some perspective on the

strength of keiretsu ties. Japan has many keiretsu of one type or another, but currently the six best known are Mitsui, Mitsubishi, Sumitomo, Fuyo, Dai-Ichi and Sanwa. Mitsui, Mitsubishi and Sumitomo are directly descended from the pre-war zaibatsu which SCAP (Supreme Command of the Allied Powers) tried to break up during the American Occupation of Japan. By contrast, the Fuyo, Dai Ichi Kangyo and Sanwa keiretsu, have been formed largely in the years after 1945. Members of all these six keiretsu are much less closely tied than is generally realized. The member firms in keiretsu with strong pre-war roots purchase only 14.8% of their procurement from fellow keiretsu members. For the more recently organized keiretsu procurement from fellow keiretsu members is still less important. Only 8.9% of procurement is purchased from affiliated firms.<sup>2</sup>

While reciprocal purchasing seems to be too weak to tie keiretsu together, it is often suggested that cross-shareholding among member firms does allow the keiretsu as a whole effective control over any individual member firm. In fact, cross-shareholding is not nearly as pervasive nor so exclusive among keiretsu members as is commonly believed. Among the six best-known keiretsu, the average of a member firm's equity held by all other members of its keiretsu is 17.9%.<sup>3</sup> While this is a relatively small amount of cross-holding, if ownership of the firm's remaining equity is widely dispersed, even this amount may be sufficient to give the keiretsu control of the member firm. In fact, for the typical member firm, control of the remaining equity is not particularly dispersed at all. Large blocks of



equity are often held by members of rival keiretsu.<sup>4</sup> Such holdings, if exercised in concert, are quite often sufficient to block effective keiretsu control of member firms.

Ties among keiretsu firms are sufficiently weak that it is not uncommon for Japanese firms to move from one keiretsu to another. Between 1972 and 1983, over one quarter of the companies listed on the first section of the Tokyo Stock Exchange changed their keiretsu membership.<sup>5</sup> This weakening of keiretsu ties goes hand in hand with the declining dependence of large Japanese firms on keiretsu banks. In 1974 Japanese firms, capitalized at more than one billion yen, relied on banks for 46.7% of their new financing. Just ten years later no more than 2.6% of new investment by these large Japanese firms was financed by bank borrowing.<sup>6</sup>

If keiretsu commercial and financial ties are relatively weak and if such ties have been made still weaker by financial deregulation, it is hard to believe that Japan's distinctive trade structure can be explained by Japan's trading companies exercising what market power they have protecting their fellow keiretsu members from competitive imports. As noted, Lawrence does cite Mordechai Kreinin's case study of foreign investment in Australia as persuasive evidence in support of the discriminatory purchasing of goods and services by Japanese companies. Unfortunately, not only does Kreinin's study not square with what is known about keiretsu behavior in the 1980's, it doesn't square with Lawrence's own study of Japanese foreign investment in the U.S. In this study Lawrence notes<sup>7</sup>

Although it is widely perceived that Japanese-affiliated automakers depend overwhelmingly on parts bought from Japanese-affiliated suppliers, a detailed GAO survey calls this perception into question. It found, for example, that of the 119 US-based suppliers used by Honda, only 28 had Japanese affiliations. Similarly 15 of Nissan's 121 suppliers were Japanese-affiliated and 8 of the 60 suppliers used by Toyota were Japanese affiliated.

Not only does Lawrence find, contrary to Kreinin, that Japanese firms do not rely primarily on Japanese suppliers, he also finds, again contrary to Kreinin, that 1) value-added by Japanese firms in the U.S. is high; 2) Japanese firms do considerable research and development and design work in the U.S., and 3) Japanese firms rely heavily on American managers.

In general, findings such as Kreinin's can be explained on grounds that have little to do with discriminatory or restrictive practices by Japanese firms and groups. Most Japanese manufacturing investment in Australia is of quite recent origin. It is designed to produce substitutes for products which were until very recently exported (and indeed continue to be exported) to Australia from Japan. Japan continues to retain (or until recently retained) a comparative advantage in most of what it is producing in Australia. Japanese manufacturing in Australia is an effort to put more value-added into the Australian economy, but Japanese ability to maintain and expand its market position there more likely rests on what it imports from home. By contrast, much of the European and American direct investments in Australia with which Kreinin compares Japanese practices were made a decade or more (in some instances six or seven decades) ago. While originally substitutes for exports, many of these

investments are in product lines where the home country of the firm making the investment has long since lost much of its comparative advantage. It is hardly surprising that, unlike the Australian subsidiaries of Japanese firms, the Australian subsidiaries of European and American firms should have to source broadly in order to retain their local market share.

Kreinin's findings for Australia are entirely consistent with the traditional histories of multinational corporations and overseas direct investment and do not suggest truly distinctive Japanese practices.<sup>8</sup> The early history of Ford and GM, among other American enterprises in Japan, is hardly different from the Japanese experience. More generally, this issue comes up so often in the experience of so many firms and host countries, that it is hardly surprising that there are hundreds of local content laws on national statute books throughout the world. The Japanese behavior in Australia is the commonplace behavior of firms from all countries in host countries throughout the world.

#### Econometric Studies on Japanese Trade Volume and Trade Structure

If keiretsu ties are weaker and if Japanese firm procurement behavior appears to be far less discriminatory than is generally supposed, it may not be so surprising to find that there are now quite a few econometric studies (including a number by me), which show, after allowance is made for Japan's distinctive national endowments, particularly its lack of natural resources, there is relatively little that is really distinctive about Japan's trade structure. While it is certainly true that there are studies (including one by Lawrence himself) which come up with contrary

findings, it is not entirely fair to argue that since some econometric issues can be raised about all of these studies, they should all be discounted. Some econometric issues are more important than others. The Srinivasan and Hamada survey, which Lawrence cites, certainly does not view all these studies as equally flawed. After noting that<sup>9</sup>

except for the study by Leamer [which like my study is dubious about the extent of Japanese under-importing] and arguably by Saxonhouse, the others are subject to a number of estimation biases

they conclude

The empirical support in favor or against the hypothesis that Japanese are underimporting is subject to criticisms which are most damaging particularly to studies in favor of the hypothesis.

Lawrence may find this conclusion surprising but only because he may be mis-interpreting the Srinivasan and Hamada comments on my work. While Srinivasan and Hamada are uneasy about my cavalierly assuming away the consequences of leaving out, because of the unavailability of data, those factor endowments which would allow my Heckscher-Ohlin specification to have the same number of goods as factors (Leamer also assumes away this problem), they reserve most of their attention to my use of forecast intervals. Their comments are well taken. It is clear I should be using tolerance intervals rather than forecast intervals when conducting my tests on the distinctiveness of Japanese trade behavior. Given my findings, however, my failure to use tolerance intervals should make no difference at all. Except for the case when the sample size is infinite, for any given probability, the forecast interval will always be smaller

than the tolerance interval.<sup>10</sup> Since I find Japan to fall within the forecast interval, it will also fall within the tolerance interval. In neither case will Japan be the outlier.

### Price Differentials

While weak keiretsu ties make studies which find little evidence of Japanese underimporting all the more plausible, as Lawrence notes, if there are persistent price differentials between Japan and other countries for comparable products the credibility of such studies is weakened. It has long been appreciated that cross-national price differentials are a good way to measure the impact of non-tariff barriers.<sup>11</sup> Unhappily, the absence of strictly comparable cross-national price data has made it difficult to use this approach.

For example, during the past year, much has been made of the so-called "Forty-Seventh Street Photo Phenomenon," which claims that Japanese products, in general, and cameras, in particular, are sold abroad at lower prices than at home.<sup>12</sup> Many Japanese government officials have vehemently rejected this claim arguing that the products being priced cross-nationally are simply not comparable. For example, they argue that Forty-Seventh Street Photo charges low prices only because it is selling older models of cameras no longer desired by the Japanese consumer. This controversy bubbled over in the U.S.-Japan Structural Impediments Initiative discussions last Fall. As an outcome of this controversy the U.S. Department of Commerce and Japan's Ministry of International Trade and Industry agreed to undertake a

detailed joint price survey which would take special pains to price comparable products in the United States and Japan.

The survey actually conducted appears to have been scrupulous in its efforts to obtain comparable retail price data. Considerable effort has been extended to insure that comparable products are being priced in comparable retail locations. Price observations have been segregated according to whether they have been taken in specialty shops, discount houses or department stores. Unfortunately, the products included in this survey are in no sense a random sample of the universe of comparable products available in U.S. and Japanese markets. Rather they are the outcome of weeks of acrimonious negotiation between Commerce and MITI. Indeed, the final list could not be agreed upon until the day before the survey started.

The actual survey results contain some surprises. While there are certainly many instances of Japanese goods having lower prices in the U.S. than in Japan, the "Forty-Seventh Street Photo" phenomenon is not pervasive even at Forty-Seventh Street Photo. Of fourteen Japanese-produced cameras and video camera related products, only six are cheaper in the United States. Overall, twenty-six of fifty-seven Japanese products have been found to be cheaper in the United States than in Japan. By striking contrast, only four of thirty-five U.S. products and only two of twenty-one European products are cheaper in Japan than in the United States.<sup>13</sup>

Simply counting up observations of what, in any event, is not a randomly drawn sample may yield a very misleading impression. Bill Cline of the Institute for International Economics has analyzed the determinants of the U.S. and Japanese price differences found in this sample.<sup>14</sup> Cline rejects the "Forty-Seventh Street Photo" phenomenon and finds that there is no statistically significant difference between U.S. and Japanese retail prices for goods produced in Japan. By contrast, the hypothesis that there is no statistically significant difference between U.S. and Japanese retail prices for goods produced in the United States and Europe cannot be accepted.

Cline's results present a problem for those who would argue that the Japanese market for manufactured products is highly protected. If the Japanese market is highly protected, both Japanese and foreign products should have much higher prices in Japan than abroad. That only foreign products have high prices in Japan suggests a different interpretation. The high prices for U.S. and European products in Japan may reflect the marketing strategies of oligopolistic firms. As Cline notes, US and European firms appear to have concluded that they can maximize profits in the Japanese market through a low-volume high-price strategy.

For Cline's interpretation to be persuasive it must be possible that, even in the absence of trade barriers, US and European firms can successfully maintain price differentials in excess of transport costs. Such behavior is plausible. For example, if 1) the demands for many of these products are

relatively price inelastic and 2) there are fixed costs in the arbitrage of the kinds of differentiated final products examined in the Commerce-MITI Price Survey, (perhaps because of economies of scale in transportation) then new entry will be anemic and substantial price differentials can persist.

The absence of statistically significant differences in prices in U.S. and Japanese markets for Japanese products is largely consistent with Lawrence's finding that both distribution margins and the cost of distribution as a proportion of final goods prices are more or less the same in both Japan and the U.S. It may not be consistent, however, with Lawrence's findings that capital invested in Japanese manufacturing earns a uniquely high rate of return and that profits in Japanese manufacturing are an unusually large share of total value added. The relatively high Japanese profit rates and profit shares, which Lawrence cites, however, may be a statistical mirage. Relative to all other major industrialized countries, save possibly Italy, Japan's manufacturing sector includes disproportionate numbers of self-employed. The profit numbers Lawrence cites include self-employment income as part of operating surplus and therefore overstates both the Japanese (and the Italian) rates of return. Japanese profit rates are likely to be high relative to most other countries not because of Japanese market power allegedly keeping prices high and goods out, but because they include a substantial chunk of labor income!

The Japanese Adjustment Mechanism and the Structural Impediments Initiative



While I may disagree with some of the details of Lawrence's analysis, I certainly share his conclusion that there is little in the character of the Japanese market for manufactured goods that prevents marginal responses to price and cost incentives. The dramatic increase in the total volume of manufactured goods entering Japan during the past four years, largely in response in exchange rate changes, persuades Lawrence that there is little necessity for an entirely new approach to trade relations with Japan. Lawrence intends his conclusion as a rejection of the "managed trade" approach advocated by many critics of Japan's economic practices. Though he doesn't develop the theme, his conclusions are also an interesting commentary on the United States-Japan Structural Impediments Initiative (SII) discussions.

The SII talks link current account adjustment with access to the Japanese market.<sup>15</sup> This linkage reflects long-standing thinking in the OECD and in some quarters of the U.S. Treasury (the U.S. government agency which took the initiative in the Spring of 1989 in proposing the SII talks) that structural factors in many of the major industrialized economies (but particularly Japan) prevent the exchange rate mechanism from playing its traditional role in the international adjustment process. SII is very useful in reassuring both the American and Japanese electorate about the terms of foreign access to the Japanese market. Lawrence's work reminds us, however, that the traditional adjustment mechanisms still have a great deal of life in them and that the empirical underpinnings of the conventional OECD and Treasury analysis remain, at most, an open issue.

## Footnotes

1. Gary R. Saxonhouse, "Kawase reeto, kozo chousei to Taiheiyo chiiki ni okeru sankaku boeki," Keizai shakai seisaku No. 205 (May, 1989) pp. 41-49.
2. Kōsei torihiki iinkai, Kigyō shudan no jittai ni tsuite (Tōkyō: Kōsei torihiki kyokai, 1983) pp. 39-42.
3. Toyo keizai, Kigyō keiretsu sōran (Tōkyō, 1989).
4. Ken-ichi Imai, "Kigyō gurupu" in Ken-ichi Imai and Ryutaro Komiya (ed.), Nihon no kigyō (Tōkyō: Tōkyō daigaku shuppankai, 1989).
5. Kigyō keiretsu sōran.
6. Nihon ginkō, "Shuyo kigyō keiei bunseki," Keizai tōkei nenkan (Tokyo, 1989).
7. Robert Z. Lawrence, "Japanese Affiliated Automakers in the United States: An Appraisal."
8. Mira Wilkins, The Maturing of Multinational Enterprise: American Business Abroad, 1914-1970 (Cambridge, Mass.: Harvard University Press, 1975).
9. T. N. Srinivasan and Koichi Hamada, "The U.S.-Japan Trade Problem," pp. 3 and 36.
10. Carl Christ, Econometric Models and Methods (New York: John Wiley and Sons), pp. 549-565.
11. Alan V. Deardorff and Robert N. Stern, "Methods of Measurement of Non-Tariff Barriers," University of Michigan Institute of Public Policy Studies Discussion Paper No. 203 (June, 1984); Gary R. Saxonhouse, "What's Wrong with Japanese Trade Structure," Pacific Economic Papers (July, 1986), pp. 1-36.
12. James M. Fallows, "Containing Japan," Atlantic Monthly (May, 1989).
13. United States Department of Commerce and Japan Ministry of International Trade and Industry, Joint Survey on United States and Japanese Retail Prices (Washington, D.C., November, 1989).
14. William R. Cline, "Japan's Trade Policies." (Paper delivered to Ministry of International Trade and Industry Research Institute, May, 1990).
15. Interim Report and Assessment of the U.S.-Japan Working Group on the Structural Impediments Initiative (Washington, D.C., April 5, 1990).