ASPECTS OF THE JAPANESE EQUITY INVESTMENT IN AUSTRALIA
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ABSTRACT

The purpose of this paper is to establish and correlate the incentives and disincentives that motivated Japanese equity investment to Australia. Japanese investment was primarily to secure procurement of raw materials for the manufacturing industry in Japan. Within this context, the paper explores Koizumi's comparative advantage Japanese equity investment theorem. Australian commodity prices and exports to Japan correlated positively with Japanese equity investment, however, the Australian tariff rate and the Australian dollar/yen exchange rate correlated negatively with Japanese equity investment.

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Aspects of the Japanese Direct Investment in Australia

1. Introduction:
Since the end of World War II, American and Japanese multinational firms have been attracted to and investing in diverse Australian economic sectors. The Americans wanted to gain access to the local Australian market, circumventing the Australian tariff wall, while the Japanese needed secure raw-material sources for the procurement of their industrial inputs. The Australian government through their policy regulations on trade and investment, influenced and affected American and Japanese equity investment into the manufacturing and raw-material producing sectors. These impediments were an important influence on the exporting performance of the two sectors.

Hamada and Nishimura contrast Japanese 'trade-oriented' equity investment with the American 'market-oriented' equity investment in a characterisation of Kojima's hypothesis, that Japanese investment promotes a 'comparative advantage structure'. Such a form of direct investment would be less offensive, more in line with Australians national goals whilst the 'microscopic standpoint of the big corporations' of the Americans, would dilute such goals. Further comments by the two authors were made on the relationships (Japanese differences to American) between tariff and industrial policy, factor movements, industrial organisation, movement of managerial resources and the application of price theory.

Australian export prices had little or no effect on American market-oriented equity in my previous paper. In this paper, Australian export prices will be correlated with Japanese direct investment to Australia. Another form of price increase, taxes on trade, will be examined for any disincentive effects on Japanese investment.

The Japanese and Australian economies complement each other. Japan manufactures products for its large domestic and international markets but does not have supplies of raw materials for its industries and therefore depends on crude-material exporting economies like Australia. For its part,

1. "the spectacular growth and changing geographical pattern of direct investment flows observed...are influenced by the existence of trade barriers," OECD, Industrial Policy in OECD Countries, 1989, page 38.
2. "the manufacturing sector is not export oriented", see Impediments to manufactured exports, BIE Discussion paper 12, page 25.
5. Towle, 1998; see McAlce (1991) and Watson (1972) on the regression methodology of best linear unbiased estimators and their orthogonal vector.
Australia must export large quantities of raw materials to pay for manufactured imports from Japan, the US and the UK, the top three countries trading with and investing in Australian equity.

More than two-thirds of Japan's post-war imports have been raw materials and to secure these inputs for its manufacturing industry, Japan has located more than three-quarters of its direct investment in non-manufacturing industries abroad. Nearly a tenth of such investment went into mining, another eighth into commerce and more than a fifth into finance and insurance. In the latter part of the 1980s, there was some shift towards American stock market shares and real estate. Japan has also invested in Australian real estate, retail trade and tourist services. The tourist-related industries are making important contributions to the Australian economy.

With this kind of emphasis on trade and investment in raw materials, the prices of inputs are important to Japan's industrialists and they are "Defending the National Interest", by seeking the best prices. Therefore, there is reason to expect that Japan's trade-oriented equity investment is affected by Australian export prices. In a corresponding fashion, a further 'market or trade' theory test of the relevance of the Kojima hypothesis can be made with the addition of interest rate variables. If the Japanese investor is more interested in market return over industrial inputs, then the higher Australian interest rates could explain Japanese investment.

Another significant dissimilarity in investor 'types' is the purchase of raw materials in different national currencies. Sekiguchi stated in his third hypothesis that Japanese direct investment is a function of the investors' ability to adapt themselves to the expected variations of the relative value of two currencies. The author refused, however, to consider this variable because he did not feel that the hypothesis would explain the two-way flow that was occurring at the same time between two countries. This may be true when comparing the Japanese yen to Australian dollar improvement with that of the American dollar, but potential profit from the exchange rate is another incentive for investment.

As mentioned on the previous page, total Japanese foreign direct investment changed in form and geographical region. North America attracted Japanese investment in dollar-denominated assets. Between 1986-89, the region received nearly one-half of the outflow compared to an earlier 1969-73 period, when it was a little more than a fifth. During the five-year period 1984-88, Japanese companies injected more than one-half of their American investment in mergers with, and acquisitions of, US multinational companies. In one year, 1988, the sum was six times greater than the equivalent Japanese post-war (1946-1988) direct investment to Australia.

The goal of this paper, however, is, beside the interest regarding the Japanese equity investment to Australia, especially concerned with the macroeconomic determinants of Japanese capital outflow to the commodity-supplying industry of Australia. It is this (overseas exporting) raw material sector, that has absorbed Japan's significant post-war direct investment.

The objective of the paper is threefold. First of all, to establish, examine and correlate the determinants of the Japanese equity investor; secondly, to contrast the distinct advantage investors determine the Japanese equity investors. This analogy may be able to show the comparative advantage for Japanese investors with a ready-made "Japanese" market trading for Australian crude materials to that of the American trade, although the latter must compete with locally made manufactured products on the world market. A significant difference in the determinants of the two 'types' of investors would establish a prima facie reason for the 'comparative advantage structure' statement of Kojima. For example, Australian exports to Japan would be more important to Japanese investors, than a return on investment was, to the Americans. The third and final objective, moreover, would be to correlate the 'price' effect that Australian tariffs had on Japanese investors.

To analyse the long-term direct investment from Japan to Australia, aggregate data from both countries will be used. After the theoretical framework discussion in Section 2, Section 3 will discuss the empirical results, and Section 4 will draw conclusions.

11. Japanese contracts are often written in American dollars creating a three-way flow, however, "Capital flows may respond to changes in the relative price of national currencies, or to the valuation effects (capital gains) and revisions of expectations that they entail." Fausten, D.K., page 13.
14. Ibid.
2. Theoretical Framework:

The time period 1963-1989 was chosen to start with the first year, 1963, of significant investment. Japanese sources were used for the equity variable and their past of the interest rate variable; the United Nations International Monetary Fund for the direct Japanese nominal investment abroad, the American dollar to Japanese yen exchange rate and the Australian export price commodity index. The real interest rate (gap) variable was the difference between Japanese end-of-term (discount rate on two months private) bills and Australian long-term government bonds less the Australian consumer price index. For a number of reasons including the direct equity regulation, Australian overseas investment data was not considered significant. The Australian Bureau of Statistics was the source for tariff (tax) revenue, the Australian income (profit share) ratio variable and the Reserve Bank of Australia provided the yen/SA exchange rate.

Unlike American investment in which there was an early emphasis on manufacturing, the Japanese injected more than four-fifths of their equity into Australian non-manufacturing industries. The consequence of any explanatory variables on total equity investment would affect the non-manufacturing sector more or less to the same degree, and for this reason, the total net equity capital flow will be considered in this paper. The model used is an accelerator model of weak rational expectations.

Other possible significant variables representing the Australian government's frequent changing of the investment rules would be appropriate, if these disincentive variables could be measured properly. However, the effect would be so great (in the model) that it would misstate the other variables. Concerned with the requirements for local content, percentage to be exported, trade-balancing, product mandating, technology transfer and local equity, the disincentive variables are indicative of the general business climate in Australia. Their moral influence on investors would be more extensive than actual costs to investment.

2.1 The Statistical Models

As in Scaperlanda and Balough's study the Australian economy is treated as a closed economy and the Japanese multinational manufacturing investor has a strong motive to diversify his inputs with equity investment in Australia and also abroad. At the same time, another immediate concern to the investor is the return on his capital. Assume that available income or profit share as measured by the ratio of Australian net operating surplus (GOS/GDP) and gross domestic product (NPS/GDP) is one such return. Another return is the real interest rate gap (R) obtained when the return on that capital is higher in Australia than Japan (R_A - R_J). Likewise if the value of the investor's money is gaining against the currency of the investor's target country, another return on capital can be obtained from the exchange rate. Of further interest to the investor are earlier exchange rates (E) and to keep up with his competition, prior equity investment (I).

The price of inputs Japan required for manufacturing, discussed by Hamada and Nishimura, is of primary concern to the raw material importer and investor. By buying into Australian mineral resources, not only were Japanese companies able to secure a stable supply source but they also gained opportunities for the purchase of long-term supply contracts during periods when export prices were favourable. The Australian export price (commodity) index (PX) will be used as an explanatory variable for the effect of final prices on equity investment. Australian commodity exports are market-oriented (a price taken) in the international market place. The subsequent Australian export price index should relate to international trade in commodities and their prices would lend additional emphasis to the Japanese investors' quest for secure growth through competitive prices with the diversification of his inputs investment. Through vertical integration in Japan, exports of Australian raw material will be paid for with manufactured exports to Australia and to Japan's international market. A very real concern to the Japanese investor is the increase in prices the additional tax costs on this trade that are caused by tariffs (T) or previous tariffs (T), on merchandise the investor will sell in Australia to pay for his inputs imported from Australia.

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15. Japanese equity investment to Australia started in 1959 with (AS 112,000), reaching 1.5 million in 1963. It totalled US$73 million to the world in 1960, equivalent to the total for the six previous years (1954-59). The absence of quarterly data concurrent with Australian data, limited the database.
16. Rowe, pages 3 and 9, see especially the footnotes 1 and 7 on page 9. From 1971, the Japan Yearbook states that the direct equity (regulation) acquisition rates were 15 per cent for 'designated' industries and 25 per cent in the case of 'undesignated' industries.
21. For example, while US tariffs on Australia products have generally been low, the Australian US import quotas on motor vehicles was only recently removed (1988) and "the tariff was reduced to 45 percent" R. H. Snape in J. Bassett's Free Trade Areas and U.S. Trade Policy, 1989, pages 167-196. For the latest discourse and literature list on the benefits of free trade see D. Rodfire, 1992.
A variety of statistical models (in reduced form) are used to estimate and examine the trade and/or market-oriented motives for Japanese equity investment in Australia and to consider their association with the comparative advantage structures of profit and price. For example, below the larger equation establishes the covariance and correlation between equity (a real transfer of resources) and the change over time of the disincentive explanatory variables, tariffs, prices and investment abroad, with the incentive variables, exports to Japan, income from profit share, interest rates and the exchange rate.

From the model

\[ l_i = \sum \left( K_i - K_{i-1} \right) \]

where

\[ 1 = \text{Total nominal Japanese equity investment to Australia,} \]
\[ \text{(change in total capital K to last year's total K in Y}) \]

and

\[ \Delta K_i = \sum \left( \Delta K_i - \Delta K_{i-1} \right) \]

thereafter

\[ \Delta L_i = \sum \left( \Delta K_i - \Delta L_{i-1} \right) \]

we then use variables

\[ l_i = \beta_0 + \beta_1 X_i + \beta_2 \Delta X_i + \beta_3 \Delta T_i + \beta_4 \Delta L_i + \beta_5 \Delta R_i + \beta_6 \Delta \Delta Y_i + \varepsilon_i \]

\[ X = \text{Australian nominal exports to Japan;} \]

\[ PX = \text{Australian export (commodity) price index;} \]

\[ E = \text{Nominal Japanese yen (Y) & the Australian Dollar (AS) exchange rate;} \]

\[ AI = \text{Total Japanese nominal investment abroad (total assets of Japanese firms abroad in Y);} \]

\[ Y = \text{Corporate profit share from Australian income ratio (AS), (NOS/GDP) net operating surplus to gross domestic product;} \]

\[ R = \text{Real interest rate (difference of Australian long term government bonds and Japanese [end of term discount rate on private bills] less current inflation (CPI);} \]

\[ T = \text{Australian tariff rate measured as} \frac{TP, X}{X, \text{value of total imports (c.i.f.)}} \]

Our main focus here is on tariff policy. The domestic tariff influences the market equilibrium in the domestic market and the foreign tariff affects the foreign market. Each of these tariffs has an impact on the profits of both firms and therefore on the welfare of both countries. Henceforth, Japanese investors could be interested in the consequences that an Australian tariff rate would have on Japan’s import of Australian commodities and its export of manufactures to Australia.

\[ l_i = \beta_0 + \beta_1 X_i + \Delta T_i \beta_3 + \varepsilon_i \]

One country may benefit from protection, but the resulting losses to other countries usually more than offset this gain. High tariffs are a tax on imported Japanese merchandise and could misdirect resources affecting the prices of Australian commodities exported to Japan. A tariff correlation with previous Japanese investment and Australian exports to Japan would imply Japanese awareness.

\[ l_i = \beta_0 + \beta_1 A_i + \beta_2 X_i + \beta_3 T_i + \varepsilon_i \]

Australian commodity prices could attract the interest of Japanese investors to Australia as a source for stable industry inputs if Australian prices are competitive on the world market.

\[ l_i = \beta_0 + \beta_1 A_i + \beta_2 X_i + \beta_3 T_i + \varepsilon_i \]

The correlation (sign) outcome of exchange rates may give an indication of how the Japanese feel about their contracts being written in American dollars and how they, the investors, adapt (see page 3) to variations of the yen to the Australian dollar.

\[ l_i = \beta_0 + \beta_1 A_i + \beta_2 X_i + \beta_3 E + \beta_4 \varepsilon_i \]


24. ibid, page 194. For a discussion on the tariff-related factors affecting exports caused by the misdirection of resources, see page 292, L.B. Krause, 1984.
The empirical results are as follows. The variable of total Japanese equity investment in Australia, which is the rate of change in yen relative to the Australian dollar, has a significant positive correlation with the Australian dollar exchange rate. The returns on investment in Japan were higher, given a high correlation between the two variables, and at a lower level with exchange rate of 0.79 and at previous experience of 0.6. The rate of change of the yen relative to the Australian dollar had a significant negative correlation with the exchange rate, and its price was significant at 0.79. The tax on trade, when lagged, correlated significantly with the exchange rate in Australia. Japanese equity investment in Australia also had a significant positive correlation with the yen exchange rate. The returns on investment were significant at 0.79 and at a lower level with exchange rate of 0.6. There was a negative covariance of 0.79 with previous experience, indicating that the returns on investment in Japan were much less significant than the exchange rate. The explanatory variables, tariffs and the exchange rate, were also significant at 0.79.

Table 2: Japanese Equity Investment to Australia 1963-1989

<table>
<thead>
<tr>
<th>β₀</th>
<th>β₁X₁</th>
<th>β₂X</th>
<th>β₃E</th>
<th>β₄E₁</th>
<th>β₅T</th>
<th>β₆T₁</th>
<th>dw</th>
<th>se</th>
<th>f</th>
<th>t²</th>
<th>se²</th>
<th>h²</th>
<th>α²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>l(X₁, X₂)</td>
<td>5.22</td>
<td>0.79</td>
<td>2.13</td>
<td>2.22</td>
<td>0.95</td>
<td>62.8</td>
<td>0.83</td>
<td>0.63</td>
<td>0.42</td>
<td>3.37</td>
<td>Australian exports to Japan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.05)</td>
<td>(6.27)</td>
<td>(2.00)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>l(X₂)</td>
<td>3.39</td>
<td>7.59</td>
<td>9.45</td>
<td>1.58</td>
<td>1.06</td>
<td>66.0</td>
<td>0.73</td>
<td>1.12</td>
<td>0.13</td>
<td>0.63</td>
<td>The effect of tariffs on Japanese equity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.7)</td>
<td>(7.93)</td>
<td>(4.30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>l(X₁, X₂) &amp; T₁</td>
<td>0.07</td>
<td>2.63</td>
<td>3.08</td>
<td>-0.37</td>
<td>2.04</td>
<td>0.81</td>
<td>46.5</td>
<td>0.84</td>
<td>0.02</td>
<td>2.48</td>
<td>1.49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.92)</td>
<td>(6.68)</td>
<td>(2.68)</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>l(X₁, X₂) &amp; PX</td>
<td>4.33</td>
<td>1.8</td>
<td>2.33</td>
<td>0.76</td>
<td>2.12</td>
<td>0.81</td>
<td>47.2</td>
<td>0.64</td>
<td>0.23</td>
<td>2.01</td>
<td>1.22</td>
<td>The.MediaType perspective of Japanese equity in an exchange rate is competitive advantage theorem</td>
</tr>
<tr>
<td></td>
<td>(1.85)</td>
<td>(4.58)</td>
<td>(2.30)</td>
<td>(1.87)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>l(X₁, X₂) &amp; E</td>
<td>19.34</td>
<td>0.52</td>
<td>3.08</td>
<td>-1.07</td>
<td>2.31</td>
<td>0.8</td>
<td>46.2</td>
<td>0.84</td>
<td>0.16</td>
<td>1.73</td>
<td>1.91</td>
<td></td>
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<tr>
<td></td>
<td>(2.72)</td>
<td>(3.12)</td>
<td>(2.00)</td>
<td>(2.00)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>l(X₁, X₂) &amp; E₁</td>
<td>12.93</td>
<td>0.59</td>
<td>2.79</td>
<td>-0.84</td>
<td>2.1</td>
<td>0.82</td>
<td>45.7</td>
<td>0.84</td>
<td>0.18</td>
<td>1.11</td>
<td>2.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.48)</td>
<td>(3.67)</td>
<td>(2.54)</td>
<td>(2.54)</td>
<td></td>
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<td></td>
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</tbody>
</table>

(t-statistic in parentheses, all variables scaled in logarithms, and if is adjusted.

* Lagrange multiplier test of residual serial correlation, + heteroscedasticity, and # normality.)
3.1 Japan's comparative advantage in Australia

Between the mid 1960s and the mid 1970s, Japanese investors enjoyed a comparative investment advantage in Australia over US investors due to two important factors. In the first place, Japan's equity investment went directly into those Australian suppliers who exported commodities needed for Japanese industry inputs, see equation 1, Table 2. Exports to Japan contributed 2.13 in coefficient results compared to the lagged Japanese investment variable 0.79, although this variable's t-statistic value was much greater. The Durbin-Watson statistic was significant.

Another important factor was the improvement in the yen exchange rate of the two dollar currencies, American (US$) and Australian (SA$). In equation 5, Table 2, the yen/SA$ exchange rate produced a negative coefficient to Japanese investment because contracts were written in US$ dollars. The reason for the negative sign is not hard to find. While the yen improved against the US$ by nearly one and a half, its more dramatic improvement was against the SA$, nearly three and three-quarters during the time period 1963-89. The Japanese, of course, would have preferred the contracts written in SA$.

3.2 Investment and tariffs

From the discussion on page 9 and Table 1, the correlation consequence of tariffs on investment (significant and negative) and on the yen/SA$ exchange rate (significant and positive) can be expected to put some marginal pressure on the regression values. The Japanese dislike of Australian tariffs\(^\text{25}\) can be shown in regressions 2 and 3, Table 2. In the two regressions, exports to Japan contribute positive coefficients compared to the negative sign for tariffs. The Durbin-Watson statistic is not as significant in 2, as it is in regression 3. With the addition of another explanatory variable, equity investment lagged one period, the t-statistic for the tariffs variable is marginal in 3.

3.3 Export prices, exports to Japan, exchange rates, and trade theory

Regressions 4 through 6, in Table 2, confirms Kojima's perspective theorem that

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25. "Japan owes its economic security and prosperity, in no small measure, to the openness and vigour of the international system created in the wake of W.W.II. In particular, the liberal system of trade based on the General Agreement on Tariffs & Trade(GATT) and the international monetary regime based on a fixed and then floating system of exchange rates," p.2, Inoguchi & Okimoto, 1988.

Japan lowered the tariff rates in the homeland to zero for raw materials, 6 per cent for semi-finished products and 4 per cent for semi-finished material inputs. Customs Tariff Schedule of Japan; 1976 in Sekiguchi 1979, pages 36-37.

Japan equity investment to Australia has a comparative advantage over American equity investment. Although the regressions do not contain the variable tariffs, they do show the significance of export prices, 0.76 in regression 4, and the negative exchange rate variable coefficients in regression 5 (-1.07) or 6 (-0.84). In contrast, American equity investment for the period 1953-73 correlated positively with Australian tariffs. However, during the period 1969-89, the investment-tariff correlation sign changed to negative, or was similar to Japan's 1963-89 sign, although the value was not as emphatic. The increase in the price of Australian coal by two and four-fifths, after the oil price shocks of 1973-74, attracted American equity investment away from manufacturing and into mining. Previous Japanese investment contributed from 0.5 of coefficient value in regression 5 to 0.6 in 4 and 6. Exports to Japan had significant regression values in all regressions 4 through 6. The comparative investment advantage of the Japanese investor over his American counterpart ended in the mid 1970s with the above change, in the direction of American investment. At the same time the American investors were changing their direction, the Japanese government changed its policy direction on imports to encouraged imports of semi-finished materials from those countries willing to lower their tariffs\(^\text{26}\). It was willing to contribute significantly, through direct investment, towards the industrialisation process necessary to achieve this trade turnaround in those countries from which Japan currently imported raw-materials\(^\text{27}\).

The high Australian tariffs subsidized the Australian manufacturing industry with its high production costs in retail products. More importantly, the higher production costs also generated higher consumption costs and absorbed available consumers money\(^\text{28}\). This development, led finally through wages, to higher costs in the commodity export trade to Japan. A factor, that in combination with the other factors in the discussion, influenced the direction of American and Japanese equity investment. In theory\(^\text{29}\), large economies can sometimes influence their terms of trade with tariffs. However, the Australian terms of trade has been declining for the periods used for the American (1953-89) and Japanese studies (1963-89). Tariffs do not benefit small economies, nor can it influence international prices as sometimes happens in the larger economies, but tariffs

29-30 Ibid.
can influence Australian commodities exported\textsuperscript{31} to Japan.

3.4 American and Japanese equity investment in Taiwan
and the Australian tariff-wall

In the study of T. Chou, "American and Japanese Direct Foreign Investment in Taiwan: A Comparative Study\textsuperscript{32}, the author compares differences in the profitability of firms receiving American and Japanese direct investment. Even though the model specifications and the conclusions of the Taiwan study are significantly disparate to this Australian study, it is interesting to associate the results of the two studies. For example, they have similar timeframes, 1963-1985 for Taiwan versus 1963-1989 for Australia and Japanese or American direct investment variables were used. However, it is from this point that the two studies become incoherent because Chou was primarily interested in the profitability of firms in Taiwan resulting from Japanese and American direct investment. In this paper, the effect of tariffs on direct investment and tariff-affected price disparity has been given the greater significance. In another contrast, Chou found there were differences in the determinants of profitability for American and Japanese firms and that both Japanese and American direct investment were export-orientated.\textsuperscript{33} In this study, the determinants for Japanese direct investment was export-orientated, though in the American direct investment study, they were mixed. They were more market-orientated than the determinants for Japanese investment. This is not to say that Japan is not market-orientated in its trade. On the contrary, it is the argument on these three pages that the Japanese economic policy makers, strive for a more competitive trade by encouraging lower tariffs in countries like Australia, where a tariff-affected price disparity exists and is one of the reasons for price increases in Japanese industrial inputs. The Japanese firms that were importing raw materials from Australia, did not obtain the price competitiveness for goods manufactured in Japan that was expected when the yen appreciated against the Australian dollar. In Taiwan, policy makers chose to let its developing light industry compete on the international market free of protective tariff-walls, making full use of the trade-orientated direct investment from Japan and the trade and market-orientated investment from America. The result of this policy can be seen in the post-war large-scale manufacturing industry development of Taiwan.

Post-war Australian economic policy makers appeared overly concerned that overseas direct investment would distort the Australian economy. They should have been more careful of the distortion effects caused by the tariff-wall they set about constructing. In hindsight, policy makers could have viewed equity investment as international portfolio diversification at the corporate level.\textsuperscript{34} In Japan and America, equity investors or firms equated their expected marginal returns with the marginal cost of capital . . . and assuming that marginal cost of capital is the same for both types of investment, there is an incentive to invest abroad rather than at home.\textsuperscript{35}

The little variation in the motive and diagnostic outcome of equations 3 - 6, where the Durbin-Watson statistic measures from 2 to 2.1, the variance in the adjusted $^2$ from 0.8 to 0.82, the heteroscedasticity from 1.1 to 2.5, the serial correlation dimensions from 0.02 to 0.2 - are acceptable in validating that tariffs and the SA/yen exchange rate are disincentive to the point of discouraging Japan's overseas equity investment to Australia with the contracts in $US. As well as Australian protection on American and Japanese imports, Australia also isolates itself from other OECD countries with the tariff wall and protects its economy from competition within the OECD association.

4. Summary and Conclusion:

The Australian post-war economy lend itself to a trade-policy development of import substitution or the payment of manufactured imports with the exports of crude-materials. Government tariff-policy created price disparities in trade, thus subsequently opening dissimilar avenues for American and Japanese equity investment. The two disparities could be stated as: (1) The prices of manufactured imports influenced American equity investors and their manufacturing subsidiaries in Australia; (2) Where as Japanese equity investors and their crude-material subsidiaries in Australia were influenced by the prices of commodity exports. After the oil price shock, both investors were affected by the increased level of export prices activated by tariffs, which in turn, were disincentive to American and Japanese equity investment in the commodity industry. The commodity exports and their prices were the significant determinants for Japanese investments in the securing of raw materials or the industrial inputs for Japanese manufacturers.

\textsuperscript{31} "More than 80 percent of the tariff is a tax on exporters," page 26, K.Clements and L. Sjaastad, September 1983.
\textsuperscript{32} 1988, pages 165-179.
\textsuperscript{33} Ibid, pages 165-166.
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