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A COMPARISON OF GENERALIZED SYSTEM OF PREFERENCES SCHEMES OF JAPAN AND THE UNITED STATES

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This study measures and compares the degree of trade concentrarion under two Generalized System of Prefernces (GSP) schemes, that of Japan and the Unite States. Results for 1986 trade flows indicate GSP trade in both countries is extremely concentrated among the higher income beneficiaries. This degree of trade concentration is found to be greatest under the U.S. scheme. A comparison of GSP imports with other import categories serves to highlight the restrictive nature of product coverage under both GSP schemes which serves to work against interests of the least developed beneficiaries.

1. Introduction

Under the Generalized System of Preferences (GSP) program, most industrial nations extend tariff preferences to certain products exported from designated beneficiary developing countries, while retaining most-favoured-nation (MFN) duties on imports from nonpreferred sources. Tariff preferences are intended to help developing countries become more competitive in markets of donor countries, to encourage economic development through trade rather than aid. The GSP was originally intended to benefit all developing countries. However, developing countries are not equally suited to export products eligible for GSP preferential treatment. GSP trade is expected to be heavily concentrated among the higher income beneficiaries, with most developing countries enjoying little, if any, benefits under the GSP.[1]

An initial agreement to have a nondiscriminatory GSP program in favor of all developing countries led each donor to formulate a long list of beneficiaries, and simultaneously adopt safeguard measures to protect themselves from undue market disruption caused by imports from the more advanced beneficiary suppliers. Statutory and discretionary product exclusions removed from eligibility many low-technology and unskilled labor intensive products of export interest to particularly the least developed beneficiaries. A lack of expertise in fulfilling conditions required to satisfy Rules of Origin and other administrational regulations often resulted in a denial of preferential treatment to assembled articles exported from the these countries.[2] Although ceilings on preferential imports and product specific graduation from GSP eligibility were advanced by donors as means of reserving benefits for the poorer beneficiaries, there is no evidence to suggest that GSP trade shares of the these countries grew as a result of restricting preferential treatment for major beneficiary suppliers.[3]

The purpose of this study is to measure and compare the degree of trade concentration under two GSP schemes for which data are available, that of Japan and the United States.[4] Features of these GSP schemes are compared in Section II. A discussion of Suits' (1977) concentration index follows in Section III. Results pertaining to 1986 trade flows are reported in Section IV. Conclusions are summarized in the final section.

2. GSP Schemes of Japan and the United States

Provisions of the Japanese and U.S. GSP schemes are described in Murray (1977), United Nations Conference on Trade and Development (1983a, 1983b), Sapir and Lundberg (1984), and in Brown (1989). The schemes are complex, and differ somewhat in terms of country and product coverge, preferential tariff treatment, and in the nature of limitations imposed on preferential imports. The following discussion focuses on features of the schemes which might be viewed as contributing to an unevenness of preferential trade shares across countries at different stages in economic development.[5]

The GSP schemes of Japan and the U.S. have long lists of beneficiary developing countries and territories. Japan identifies 146 beneficiaries, and the U.S. lists 140. Both schemes include 116 members of the Group of 77, with few exceptions, plus some additional countries and territories. Virtually all of the low-income developing countries appear on both lists.[6] Differences in beneficiary lists can largely be attributed to the requirement in the U.S. that communist countries or countries participating in international commodity cartels, such as OPEC, cannot be designated as GSP beneficiaries. An important difference in this regard is the presence of China in Japan's list, but not the U.S. list. China, a least developed country, is the third largest supplier of Japan's GSP-eligible products. The inclusion of China would dampen the tendency for preferential trade to concentrate among the higher income beneficiaries inherent in any GSP scheme exhibiting broad country coverage coupled with widely different beneficiary export abilities.

Japan and the U.S. grant preferential treatment for a variety of dutiable manufactured and semi-manufactured products, and also for selected agricultural products.[7] Several features related to effective product coverage under the GSP schemes tend to limit preferential trade shares of the least developed beneficiaries.[8] First, the bulk of exports from these countries are industrial raw materials which enter donors duty-free under MFN conditions, and tariff preferences cannot stimulate exports of these products. Second, the GSP is intended to encourge a shift of productive effort from primary products toward manufacturing, so many processed and semi-processed agricultural, forest, and fishery products of considerable export interest to the least advanced beneficiaries are treated as falling outside the GSP's scope. A third factor working against the least developed beneficiaries is that donors protect themselves from undue disruptions caused by preferential imports by statutorily excluding low-technology and unskilled labor intensive items from GSP eligibility.[9] The U.S. has the longest list of product exclusions : textile and apparel articles subject to textile agreements,

and certain import sensitive items falling under the following porduct groups ; petroleum and chemical products, leather, footwear, wood, glass, steel, electronics, and watches. Japan excludes from GSP eligibility certain petroleum, textile and footwear products. Both countries reserve the right to suspend preferential treatment for additional products when imports cause or threaten to cause injury to domestic industries. Finally, both GSP schemes contain Rules of Origin and other administrational regulations which tend to limit preferential imports of assembled articles, particularly from the least developed beneficiaries who have the greatest difficulty in dealing with complexities of the schemes.

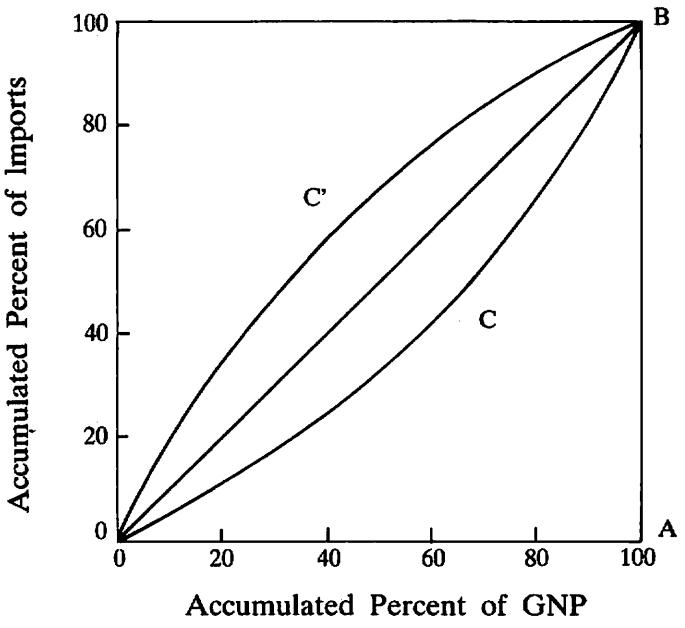
The remaining features of the GSP schemes, ceilings on preferntial imports, and graduation, are advanced by donors as means of reserving benefits of the schemes for the less competitive beneficiaries by limiting trade shares of the more advanced beneficiary suppliers. The U.S. scheme adopts competitive-need limitations, requiring the President to withdraw preferential treatment when annual imports of a product from a particular beneficiary exceed either a given dollar value, or fifty percent of total imports of the product.[10] Any item denied eligibility due to competitive-need limits being exceeded may be redesignated as GSP-eligible at the discretion of the President in a subsequent product review after the beneficiary's exprots of the product fall below the ceiling limit. Japan sets ceilings for nearly 200 industrial product groups in advance for each fiscal year by value or quantity.[11] A ceiling is set for each product group equal to the value of imports from benficiaries during a specific reference fiscal year (basic quota) plus 10 percent of the value of imports from nonbeneficiary sources during the year two years prior to the year for which the ceiling is calculated (supplementary quota). The ceilings are available to all beneficiaries on a first-come first-served basis. When a ceiling is reached, the MFN rate of duty will apply. An individual beneficiary will face suspension with respect to a particular product when preferential imports into Japan from that country reach fifty percent of the total amount of the ceiling. Ceilings are automatically reopened at the start of each fiscal year. When increased imports of a product eligible for GSP preferential treatment is not perceived to cause a disruption of the domestic market, the Japanese government will permit preferential imports to rise above the ceiling level.

Both donors reserve the right to graduate a beneficiary from GSP eligibility with respect to individual products when the country has demonstrated the ability to be "sufficiently competitive".[12] Under the U.S. scheme, a beneficiary can lose GSP status entirely, based on other factors such as its general level of economic development (per capita GNP requirement), practices related to trade, investment, and worker rights, and the general economic interests of the donor.

3. Methodology

Concentration of trade will be quantified by using Suits' index of tax progressivity, a measure related to the familiar Lorenz curve and the Gini concentration ratio.[13] The approach involves ranking GSP beneficiaries in ascending order according to per capita gross national product (GNP), marked off in deciles, plotting vertically the accumulated percent of imports against the

Figure 1. Lorenz Curves for Imports



accumulated percent of total GNP on the horizontal axis to yield a curve like that illustrated in Figure 1.[14] When imports are distributed across beneficiaries in accordance with their share of total GNP, the curve would follow diagonal OB. A more likely case is where the accumulated percent of imports falls short of the accumulated percent of total GNP. Here, the curve would sag below the diagonal following, for example, OCB. Differences in the distribution of imports and GNP in this case imply a concentration of trade among the higher income beneficiaries. In the extreme case, where all imports are accounted for by the highest income beneficiary, the curve would follow OAB. It is also possible for the curve to extend above diagonal following, for example, OC'B if the accumulated percent of imports is found to exceed the accumulated percent of total GNP. Here, trade would be concentrated among the low income beneficiaries.

Suits' index (S) is defined in terms of K, the area of triangle OAB, and L, the region below the Lorenz curve and horizontal axis, OA. When the index is expressed as :

$$S = (K-L)/K = 1-(L/K), \quad (1)$$

Suits' index will be used to summarize the avarage degree of trade concentration for a particular import category across the entire income scale. S=0 when distributions of imports and GNP shares coincide, S is positive when trade is concentrated among the higher income beneficiaries, and S is negative when trade is concentrated among the low income beneficiaries. Values of the S index can vary

from +1, in the case where all imports come from the highest income beneficiary, to 0 when accumulated shares of trade and GNP coincide, to −1 where all trade is concentrated in the lowest income beneficiary.

4. Results

Table 1 summarizes distributions of 1986 Japanese and U.S. imports by category from developing countries arranged according to income deciles. Results

Table 1. Concentration of Imports from GSP Beneficiaries, 1986.

	Cumulated Percentage :	Japan			United States		
(1) Decile	(2) GNP	(3) GSP Imports	(4) Dutiable MFN Imports	(5) Total MFN Imports	(6) GSP Imports	(7) Dutiable MFN Imports	(8) Total MFN Imports
1.	2.38	0.14	0.40	0.45	0.33	0.08	0.51
2.	14.68	1.21	2.96	4.42	3.57	0.41	2.74
3.	29.06	11.12	19.28	16.84	3.95	5.34	7.95
4.	35.76	16.38	25.99	30.18	4.65	5.38	12.15
5.	39.11	25.17	31.14	35.78	7.47	7.11	15.28
6.	45.08	27.88	35.76	40.81	10.90	7.83	24.52
7.	51.28	30.28	37.88	42.79	12.50	8.35	28.09
8.	76.19	40.06	44.47	59.67	32.79	38.95	55.46
9.	94.29	91.61	93.19	91.58	80.69	84.35	83.58
10.	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Suits' Index (s)						
		0.36	0.26	0.17	0.53	0.51	0.34

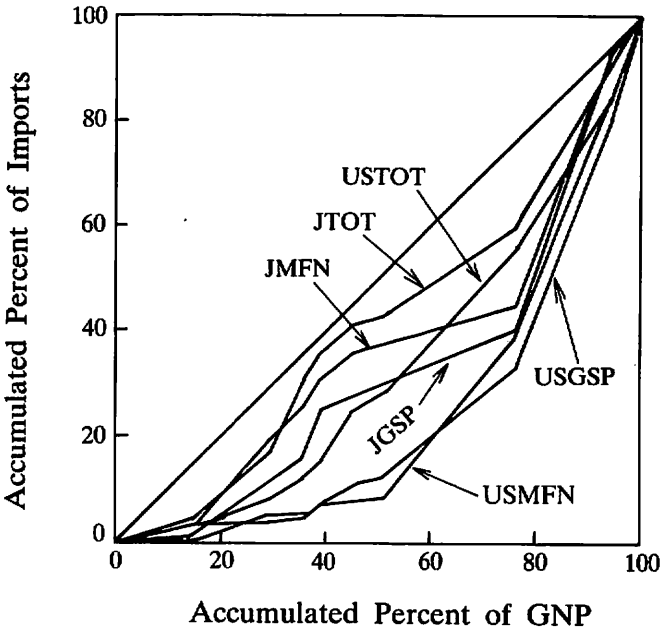
Source : United Nations Conference on Trade and Development and United States Trade Representative data files. The analysis includes 120 beneficiary developing countries.

are presented in a manner which facilitates the calculation of Suits' (S) index. Column 1 lists the accumulated percent of beneficiaries, marked off in deciles, with the accumulated percent of total GNP tabulated in Column 2. The accumulated percentages of Japanese and U.S. GSP imports associated with the corresponding accumulated percent of beneficiaries are identified in Columns 3 and 6, respectively. The remaining columns include figures for other import groups for purposes of comparison. Columns 4 and 7 pertain to imports dutiable on an MFN basis, and columns 5 and 8 pertain to total MFN imports.[15] For example, the second line of Table 1 shows the poorest 20 percent of beneficiaries eceived 14.67 percent of GNP, and accounted for 1.21 percent of Japan's GSP imports, 2.96 percent of Japan's dutiable MFN imports, and so on. Figure 2 presents Lorenz curves for the following import categories : Japan's GSP (JGSP), dutiable MFN (JMFN), and total MFN (JTOT) imports ; and the U.S.'s GSP (USGSP), dutiable

MFN (USMFN), and total MFN (USTOT) imports.

As expected, results presented in Table 1 indicate a tendency for GSP trade of

Figure 2. Lorenz Curves for Imports, 1986



both Japan and the U.S. to be extremely concentrated among the higher income beneficiaries, as the accumulated percent of GSP imports is found to fall short of the accumulated percent of GNP in both cases throughout the income scale. This concentration is in large part due to the fact that advanced beneficiaries are better suited to export GSP eligible products than are the poorer beneficiaries. Moving to successively higher deciles, GSP and other import groups show abrupt increases in accumulated percentage terms beginning with the 8th decile. Collectively, seven countries account for 72.1 percent of Japan's GSP trade. Included here, in order of importance, are Korea and Taiwan (9th decile), China (3d decile), Philippines (5th decile), Singapore (10th decile), and Brazil and Malaysia (8th decile). Seven countries, listed here in order of importance, enjoy 78.7 percent of U.S. GSP trade : Taiwan and Korea (9th decile), Hong Kong (10th decile), Mexico and Brazil (8th decile), and Singapore and Israel (10th decile). Although the U.S. is considered to have the most generous program, a comparison of columns 3 and 6, along with corresponding Suits' index values, indicates Japan's GSP trade is considerably less concentrated among the higher income beneficiaries than is U.S. GSP trade.[16] Differences in country coverage, product coverage, and in a priori limitations on preferential imports contribute to this finding.[17] Historical trade patterns may also influence this result. Japan tends to engage in relatively more MFN trade with the middle and lower income developing countries that does the United States, as is evident from a comparison of columns 4 and 5 with columns 7 and 8.

A comparison of column 3 with columns 4 and 5, along with corresponding Suits' index values, indicates Japan's GSP imports are more concentrated among higher income beneficiaries than Japan's dutiable MFN and total MFN imports. The former result illustrates the restrictive nature of the GSP scheme's product exclusions, as poorer beneficiaries are found to enjoy a larger accumulated share of dutiable MFN trade than GSP duty-free trade. The observed difference between total MFN and GSP trade, which holds for the U.S. as well, reflects the large proportional share of products shipped from poorer beneficiaries which enter donors duty-free under MFN conditions. Columns 6 and 7 indicate an obscured relationship between U.S. GSP and dutiable MFN import shares, as their relative importance is observed to change when moving up the income scale. The accumulated percentage of dutiable MFN imports exceeds the accumulated percentage of GSP imports for two lower income deciles, 3 and 4, and also for deciles 8 and 9. Suits' index values suggest the average degree of trade concentration is about equal for these two import categories. This result does not suggest that the U.S. GSP scheme is less restrictive than Japan's scheme. Suits' index values clearly show each Japanese import category, on average, is less concentrated among higher income beneficiaries than is the corresponding U. S. import category.

5. Conclusion

This study measures and compares the degree of trade concentration under GSP schemes of Japan and the U.S. for 1986. Results indicate that GSP trade under both schemes is extremely concentrated among the higher income beneficiaries, and this degree of concentration is considerably greater under the U.S. GSP scheme. A comparison of GSP imports with other import categories serves to highlight the restrictive nature of product coverage under the GSP schemes.

Changes in the U.S. scheme since 1986 will tend to reduce the degree of trade concentration among the higher income beneficiaries. On January 2, 1989, four of the leading beneficiaries (Taiwan, Korea, Hong Kong, Singapore), responsible for more than one-third of GSP eligible imports in 1986, were removed from the U.S. GSP scheme due to economic advancement. It is not clear whether the removal of these beneficiaries from the GSP will tend to "even out" perferential trade shares, or will simply give rise to a new group of more advanced beneficiaries. A number of additional countries were removed after 1986 for exceeding allowed level of GNP per capita, failing to cooperate in haulting drug trafficking and for violating worker's rights.[18]

Preferential trade is concentrated among the higher incom beneficiaries because the more advanced developing countries are better suited to export products eligible for GSP preferential treatment than are the poorer beneficiaries. Long beneficiary lists necessitated limited product coverage to protect donors from undue market disruption due to import surges from the more advanced beneficiary suppliers. The continued application of U.S. competitive-need limits, preferential import ceilings in Japan, and graduation in both donors has not led to an equitable

share of preferential trade for the beneficiaries who need it the most. Poorer beneficiaries can only be helped by expanding GSP product coverage to include all agricultural, unskilled labor intensive, and low-technology products of export interest to them, at the same time limiting country coverage to the least developed beneficiaries.[19]

Notes

1) See Murray (1973, 1977, pp. 31–62).
2) See United Nations Conference on Trade and Development (1985, p. 23, 50).
3) See United Nations Conference on Trade and Development (1985, p. 21).
4) Japan's scheme was implemented in 1971, the U.S. scheme in 1976. Nineteen industrial nations operate GSP schemes.
5) The focus here is on imports actually receiving GSP preferential treatment. Traditional GSP "benefits" are more closely related to effects of preferences on trade expansion (trade creation and diversion), tariff revenue savings, and on investment in export-related activities. See Baldwin and Murray (1977).
6) The United Nations Conference on Trade and Development (1985, p. 45) identifies 36 least developed countries. The Japanese scheme excludes 2, and the U.S. scheme excludes 4 from GSP eligibility.
7) All products eligible for the U.S, scheme receive duty-free teatment. Japan grants duty-free entry for most eligible industrial products, with the exception of some which receive a 50 percent reduction from MFN rates. Agricultural products under Japan's scheme face various duty reductions. Thirty-four least developed countries receive duty-free treatment for virtually all eligible items. See United Nations Conference on Trade and Development (1983a, 1983b).
8) See Murray (1977) for earliest criticisms of the GSP program.
9) Protectionists exerted considerable influence over GSP product coverage. See Clark(1987), and Ray (1987). Detailed lists of product exclusions are presented in United Nations Conference on Trade and Development (1983a, 1983b).
10) The dollar value, which is adjusted annually in accordance with changes in nominal U.S. GNP was $71,437,059 in 1986.
11) A detailed analysis of the restrictive nature of ceilings is presented in Murray (1977, pp. 64–70).
12) The Generalized System of Preferences Renewal Act of 1984 directs the President to complete a general review within two years to determine which products from which beneficiaries are "sufficiently competitive", and apply a lower ($20 million or 20 percent) competitive-need limit in these cases, beginning in 1987.
13) Mathematical properties of the index and its shortcomings are discussed in Suits (1977).
14) The traditional Lorenz curve would express the accumulated percent of imports plotted vertically against the accumulated percent of countries plotted horizontally, and would be restricted to lie on one side of the diagonal. Here, the Gini ratio would range between 0 and 1.
15) Total MFN imports include both dutiable and duty-free MFN imports.
16) The total value of 1986 U.S. GSP trade was more than twice that of Japan. However, graduation of four Asian NICs—Hong Kong, Korea, Singapore, and Taiwan—from the U.S. scheme on January 2, 1989 is expected to reduce the value of the U.S. GSP

program by more than one-half. See United States International Trade Commission (1988, p.5).

17) One of these influences, country coverage, can be dicectly examined. When China is dropped from the analysis, the average degree of Japan's trade concentration among higher income beneficiaries, as reflected in Suits' index, rises to 0.45. Data are not available for Japan by product and beneficiary to assess effects of a priori import limitations on concentration.

18) These additional countries lie mostly above the 5th income decile. For a complete list, see United States International Trade Commission (1989, p. 7–8).

19) Recommendations for improving the GSP program are discussed in Murray (1977), and in United Nations Conference on Trade and Development (1985).

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