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Chapter Author: André Sapir, Lars Lundberg

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6   The U.S. Generalized System of Preferences and Its Impacts

André Sapir and Lars Lundberg

6.1   Introduction

In the early sixties, developing countries started to move away from import-substitution strategies. Gradually, these were replaced by outward-looking strategies that emphasized the importance of manufactured exports in the process of industrialization and development. In order to expand their nontraditional exports, the developing nations sought to improve their market access, especially through the reduction of tariff and nontariff barriers in the industrialized countries. At that time, one opportunity to achieve better market access was the GATT-sponsored Kennedy Round of tariff negotiations for which preparatory work was under way. However, the developing countries contested the fundamental GATT principle of most-favored-nation (MFN) treatment whereby a country cannot tax imports of the same item from different countries at different rates. They argued that equal treatment of unequal partners could not constitute an equitable arrangement. The developing nations therefore asked for special and preferential treatment in their favor without reciprocity of concessions on their part.

During the GATT ministerial meeting held in 1963, proposals for special tariff treatment in favor of developing countries were formally

André Sapir is assistant professor of economics at the University of Wisconsin-Madison and is also associated with the Free University of Brussels. Lars Lundberg was a visiting scholar at the University of Wisconsin-Madison and is docent in the Department of Forest Economics, University of Umea, Sweden.

discussed for the first time. While the developed countries agreed not to require reciprocal tariff cuts by developing countries, they did not accept the proposal that tariffs in developed countries should be cut more on imports from developing nations than on imports from other developed countries. However, the debate on tariff preferences was reopened shortly thereafter at the first meeting of the United Nations Conference on Trade and Development (UNCTAD) in early 1964. Among the principles it adopted, the Conference recommended that developed countries grant preferential concessions to the developing nations without requiring reciprocal concessions. This recommendation was rejected by a group of industrialized countries, among whom the United States was the leading force.[1]

The U.S. opposition to preferences at UNCTAD was supported by both free traders and protectionists in the country. The position of the former group was based on its determination to uphold the MFN principle of nondiscriminatory treatment in trade. On the other hand, the protectionists were against tariff concessions in general because of their fear of additional imports. However, the official U.S. policy toward preferences gradually became untenable as "politically, [it found itself] virtually isolated from all the developing countries and most of the industrialized countries as well."[2] One of the major fears of the United States was the regionalization of world trade resulting from preferential trading arrangements between the European Economic Community (EEC) and the developing countries. Accordingly, in 1967 the United States announced its acceptance of the principle of nondiscriminatory preferences for all developing countries.

The shift of position by the United States paved the way toward preferential tariff treatment in favor of developing nations. This principle was formally accepted at the second session of UNCTAD held in 1968. Under the unanimously agreed upon Generalized System of Preferences (GSP), developing countries would be charged no duty for their exports to the industrialized countries, while each developed country would continue to levy the MFN tariff on products from other industrial countries. The GSP would thus provide the developing countries with a margin of preference equal to the MFN tariff in the industrialized nations.

In 1969 a Special Committee of Preferences was established by UNCTAD to conduct the necessary negotiations for actually establishing the GSP. Despite this effort at international coordination, the work on drawing up GSP schemes proceeded mainly on the national level so that, eventually, each so-called donor country applied a somewhat different scheme and introduced it at a different time. One last problem remained before actually implementing the GSP. The MFN clause of article 1 of the GATT provides that trade be conducted on a nondiscriminatory basis.

Hence, the contracting parties of GATT voted a ten-year waiver from article 1 in June 1971. The next month the EEC was first to introduce its system of preferences. Other countries followed suit soon afterward and, lastly, the United States introduced its GSP program in January 1976.

The delay in the introduction of a GSP scheme by the United States reflects the generally negative attitude toward preferences which has prevailed in this country. The opposition of both free traders and protectionists, as well as the political nature of the U.S. endorsement of the GSP, are reflected in the language of Title V of the 1974 Trade Act which provides the guidelines for the U.S. scheme. Section 501, which grants the president the authority to extend preferences, requires him to do so with due regard to:

(1) their effect on the economic development of developing countries;
(2) their likely impact on U.S. producers; and
(3) the extent of similar preferences being granted by the other major developed countries.

Clearly point (1) is addressed to the free traders who defend the view that a nondiscriminatory reduction in MFN tariff rates would be more beneficial to these countries (and the world) than the GSP. Point (2), on the other hand, is directed at the protectionists who fear the impact of the scheme on U.S. producers. Finally, point (3) makes clear the foreign policy basis for the U.S. acceptance of the GSP.

As we will see in greater detail in section 6.2, the U.S. GSP scheme is subject to a number of restrictions affecting its country coverage, product coverage, and the extent of preferential treatment. Moreover, section 505 of the 1974 Trade Act prescribes that the U.S. scheme will terminate ten years after the date of its enactment (i.e., on 3 January 1985). Although the GSP will probably be renewed for another ten-year period, its future shape remains uncertain at the moment.[3] Some changes to the system were already made following the mandated report on its first five years of operation, and more are expected before Congress approves its renewal.[4] In order to decide on the future of the GSP, a review process was launched in 1983.

The object of this paper is to provide useful input into the decision-making process on the future of GSP. In order to do so, we need to answer the following questions:

(1) What has been the effect of the GSP on the exports by the developing countries to the United States and how has this effect been distributed among individual beneficiaries?
(2) What has been the impact of the GSP on production in different industrial sectors in the United States?
(3) What would be the trade and production effects of the changes in the GSP being considered by policymakers?

The plan of the paper is as follows. In section 6.2, we review the

provisions of the U.S. GSP. After discussing methodological questions in section 6.3, an evaluation of the GSP impact on trade and production is undertaken in section 6.4. Finally, section 6.5 summarizes our results and examines the potential effects on trade and production of changes in the GSP scheme.

6.2   Provisions of the U.S. GSP

The GSP schemes introduced by the industrialized countries vary in terms of country coverage, product coverage, and the extent of preferential treatment. In the previous section we outlined the political-economic background of the U.S. decision to grant preferences to the developing countries. Here we will describe the actual provisions of the U.S. GSP and discuss them with reference to that background. As will become apparent, the GSP is a very complex institution. Therefore, it is important to review and understand its functioning before attempting to evaluate its impact and before discussing possible future changes in its operation.

6.2.1   Country Coverage

Section 502 of the 1974 Trade Act deals with the notion of a "beneficiary developing country." However, instead of enumerating the list of developing countries that can benefit from the U.S. GSP, it outlines conditions that should guide the president in determining whether to designate any country a beneficiary developing country. These are as follows: (1) a request by the country to be so designated; (2) the level of economic development of such country; (3) whether or not the other major developed countries extend their GSP scheme to the country; (4) the extent to which the country has assured the United States of equitable and reasonable access to its market and basic commodity resources.

Even if a country meets these four conditions, section 502 specifies that the president shall not designate it as beneficiary in any of the following cases: it is a communist country; it participates in international commodity cartels, such as OPEC; it affords preferences to another developed country causing a significant adverse effect on U.S. commerce; it has expropriated U.S. property without compensation; it refuses to cooperate with the United States to prevent narcotics from entering this country; and it fails to recognize or enforce arbitral awards in favor of U.S. citizens or firms.[5]

In practice, except for those countries that fall within one of the above exclusive categories, all developing countries have been beneficiaries of the U.S. GSP.[6] So far, this has been true regardless of their level of economic development. However, as we will see in greater details in section 6.5, U.S. policymakers are actively discussing the possibility of

graduating the most advanced developing countries from GSP eligibility. Indeed, from its inception, there were those in the United States who favored the exclusion of some advanced developing countries from the GSP scheme. However, politically this proved to be a problem in the international arena as the developing countries opposed the idea of discriminatory treatment among themselves. Moreover, the United States had to take into account the fact that both the EEC and Japan had granted beneficiary status to most of the advanced developing nations— even though many restrictions were attached to it.

6.2.2   Product Coverage

Although protectionist groups in the United States were not able to exclude the most competitive developing countries from GSP treatment, they did succeed in restricting the product coverage of the GSP.[7] Section 503 of the 1974 Trade Act, which relates to the eligibility of products, lists the following import-sensitive products as being ineligible for tariff preferences: (1) textile and apparel articles subject to textile agreements; (2) watches; (3) import-sensitive electronic articles; (4) import-sensitive steel items; (5) footwear articles; (6) import-sensitive glass products;[8] and (7) any other articles which the president determines to be import sensitive in the context of the GSP.

The regulations governing the administration of the GSP provide that any interested party may petition to have new articles either removed or added to the GSP list. Decisions are taken by the president based on investigations by the GSP Subcommittee of the Trade Policy Staff Committee. As a result of annual product reviews, 233 products have been added and 27 removed from the original list of 2,729 GSP-eligible items as of 31 March 1982.[9]

6.2.3   Limitations on Preferential Treatment

Rules of Origin

To prevent exports from nonbeneficiary countries from transiting via beneficiary countries for the sole purpose of GSP treatment, donor countries have instituted a set of rules of origin. In the United States, duty-free treatment for GSP-eligible products applies only if (a) a product is imported directly from a beneficiary developing country into the United States; and (b) the sum of the cost or value of materials produced in the beneficiary country plus the direct costs of processing equals at least 35 precent of the value of the product.[10] Although these rules are primarily intended to insure the proper operation of the GSP, in certain instances they also might serve a protectionist purpose. In particular, in some cases they might deter U.S. multinational corporations from re-

sponding to GSP margins by transferring production to beneficiary developing countries.[11]

Competitive Need Limitations

Under section 504 of the 1974 Trade Act, a beneficiary developing country loses GSP duty-free treatment for a particular product if its exports to the United States exceeds (1) 50 percent of the value of the total U.S. imports of the product;[12,13] or (2) a certain dollar value adjusted annually in accordance with the growth of the U.S. GNP.[14] The loss of preferences takes effect on 30 March of the following year.[15] Reinstatement to GSP treatment may be considered if U.S. imports of that product from the excluded country fall below the competitive need limitations in subsequent years. Hence, during any given year (from 30 March to the following 29 March), imports of a product from a beneficiary country enter the United States either entirely GSP duty-free or entirely at the MFN rate.[16]

It is often emphasized that competitive need limitations are designed to reserve the benefits of the program for less competitive producers in not-so-advanced developing countries. However, it should also be recognized that these limitations are the result of domestic protectionist pressures.

6.2.4   The Consequence of Exclusions

What is the importance of the various exclusions presently built into the U.S. GSP scheme? A rough answer can be obtained by examining the trade flows presented in table 6.1. For instance, in 1978, U.S. imports from developing countries amounted to $75.9 billion. Out of this sum, $62.0 billion were subject to MFN tariffs and, thus, constitute the potential trade that could benefit from GSP treatment. However, because of restrictive country coverage, only $31.4 billion of dutiable imports from developing nations came from GSP beneficiaries.[17] Moreover, from this amount, only $9.7 billion was eligible for GSP treatment because of product exclusions, most of which covered items with relatively high MFN tariff rates. Finally, the implementation of rules of origin and competitive need limitations further reduced the actual GSP duty-free imports to $5.2 billion. This represents 8 percent of the dutiable imports from all developing countries and 17 percent of the equivalent imports from the beneficiary countries alone. Thus, only a relatively small fraction of the imports from developing countries fall under the GSP program. Moreover, as far as beneficiary countries are concerned, the MFN rate on excluded trade flows tends to be much higher than the preference margin applied to included flows.

Table 6.1   **U.S. Imports: Total, MFN Dutiable, and GSP Coverage (billions of dollars)**

	1976	1977	1978	1979	1980	1981
From the world						
Total	119.5	145.5	170.7	210.0	245.0	260.0
MFN dutiable	86.2	106.2	125.3	n.a.	n.a.	n.a.
From all developing countries						
Total	55.0	70.2	75.9	96.2	119.1	120.3
MFN dutiable	45.6	58.0	62.0	n.a.	n.a.	n.a.
From all GSP beneficiaries						
Total	28.1	34.7	41.4	51.2	63.5	68.5
MFN dutiable	20.9	25.4	31.4	38.2	53.8	n.a.
GSP eligible trade	6.5	7.7	9.7	11.7	14.3	16.9
Exclusions						
50% limit	(0.7)	(0.8)	(1.0)	n.a.	n.a.	n.a.
dollar limit	(1.2)	(2.0)	(2.2)	n.a.	n.a.	n.a.
rules of origin						
and other[a]	(1.4)	(1.0)	(1.3)	(1.6)	(1.4)	n.a.
GSP duty-free trade	3.2	3.9	5.2	6.2	7.3	8.4

SOURCE: Office of the U.S. Trade Representative.
[a]Including the absence of request for GSP coverage.

6.3   Methodology

Conceptually, a preferential tariff reduction (like the GSP) is similar to the formation of a customs union. Both give rise to the same static effects, described often as trade creation (TC) and trade diversion (TD). The TC effects corresponds to the displacement of domestic production in the donor country in favor of imports from beneficiary countries. The TD effect pertains to the substitution by the donor country of imports from preferred suppliers for imports from nonpreferred countries. If we assume that U.S. apparent consumption is not affected by the change in tariffs, one dollar's worth of imports will replace one dollar's worth of domestic production, and the impact on U.S. output and employment is then determined only by the trade creation effect. On the other hand, for beneficiary developing countries more significance is attached to the sum of the TC and TD effects, which reflects the total impact of preferences on their exports. This sum is often referred to as gross trade creation (GTC). According to the theory of customs unions, trade creation increases the welfare of the donor country, since resources are transferred away from inefficient import-competing sectors. However, trade diversion implies a welfare loss, since imports are diverted from the most efficient suppliers.

Empirically, several methods have been used to estimate the trade creation and diversion effects of preferential trading arrangements.[18] Among these methods, one can distinguish between ex ante and ex post methods. The former seek to study the effects of preferential tariff reductions in advance of their implementation. In addition to estimates of tariff reduction, ex ante methods require estimates of domestic and foreign supply elasticities as well as of own- and cross-price import demand elasticities. On the other hand, ex post methods seek to isolate the effect of preferential arrangements on actual trade flows from effects of changes in other determinants of trade.

The choice between ex ante and ex post methods obviously depends on the task at hand. In our particular case, the adopted methodology should, ideally, have the following properties: (i) it should provide estimates of the effect of the present U.S. GSP scheme by incorporating information on its actual functioning; and (ii) it should give these estimates for individual countries and individual products in such a way as to enable one to gauge the effects of possible future changes in the GSP.

The ex ante method was first used in the context of the U.S. GSP by Baldwin and Murray (1977). Its primary advantage is that it is particularly well suited for investigating alternative hypothetical policies. However, besides the fact that it relies on rather rough elasticity estimates, this method suffers from another major drawback. In principle, the GSP provides the developing countries a margin of preferential equal to the U.S. MFN tariff which, hereafter, will be referred to as the theoretical preference margin (TPM). By definition, ex ante studies use TPMs to compute the trade effects of the GSP. However, as we have seen earlier, in practice rules of origin and competitive need limitations tend to reduce the amount of imports actually entering duty-free below the total level of imports from GSP beneficiaries.[19] Accordingly, the actual preference margin (APM) will be below the TPM. Hence, for the beneficiary country i and the eligible product j, we can write

$$(1) \qquad\qquad A_{ij} = p_{ij} T_j,$$

where A and T correspond to AMP and TPM, respectively, and p_{ij} is the proportion of U.S. imports of product j from country i that actually enter GSP duty-free.[20] Thus, because they use theoretical instead of actual preference margins, ex ante evaluations of the GSP system will tend to overestimate its trade effects. This is likely to be true even if the analysis is adjusted by leaving out those trade flows that are a priori excluded from GSP treatment, as in Baldwin and Murray (1977), since this does not account for additional exclusions resulting from the restrictive operation of the GSP rules.

Ex post methods use data for actual trade flows which they compare to

an anti-monde (i.e., hypothetical trade flows corresponding to a situation of unchanged tariffs), the difference being the tariff effect. The crucial element here is obviously the construction of the anti-monde. One of the approaches to this problem has been to extrapolate trends in market shares from a period before to a period after the tariff change.[21]

Another approach consists of explicitly introducing a tariff variable in the analysis and statistically estimating the relationship between trade flows and tariff preferences. The main advantage of this method is that it provides a test of the statistical significance of tariff effects. Moreover, it does not require any elasticity estimates nor any nontestable assumption about the anti-monde. On the other hand, the weakness of this and other ex post methods is that in order to give reliable estimates they require a period during which the trade effects of tariff changes are relatively large compared to the effects of other disturbances.

The statistical analysis of the impact of GSP preferences on trade flows requires one to formulate models that are capable of explaining international trade flows by a set of factors that includes tariff preferences. Recently a large number of empirical studies have addressed this issue with the help of cross-section regression models. As Leamer (1974) has pointed out, these models belong to two categories which are the dual of each other. They seek to explain trade flows either for particular products across countries or for particular countries across products.[22]

For the purpose of examining the trade impact of the GSP, the first group of models may be summarized as

$$(2) \qquad\qquad M_{ij} = F_j(E_i, A_{ij}),$$

where M_{ij} is the U.S. import of product j from country i, E_i is a vector of country i's characteristics, and A_{ij} is the actual preference margin defined earlier. The presence of this vector of country characteristics is a reflection of the theory we adopt to explain comparative advantages: products use certain resources intensively and can be produced more cheaply by countries abundant in these resources. The GSP impact is indicated by the A_{ij} coefficients obtained by estimating equation (2) for each product over a cross-section of countries comprised of both GSP beneficiaries and nonbeneficiaries.[23]

The second group of models may be expressed as

$$(3) \qquad\qquad M_{ij} = G_i(E_j, A_{ij}),$$

where E_j is a vector of product j's characteristics and the other variables are as previously defined. This vector of product characteristics reflects the dual of the theory of comparative advantages stated earlier: certain resources are abundant in some countries and these countries can produce more cheaply those products that are intensive in the use of these

resources. Here the GSP effect may be derived from estimating equation (3) for each exporting country or group of countries over a cross section of products.

If we postulate a simple constant-elasticity form for F_j, we may write equation (2) as

(4) $$m_{ij} = \alpha_j + \beta_j e_i + \gamma_j A_{ij},$$

where $m_{ij} = \log M_{ij}$, and $e_i = \log E_i$. For our purpose, it will be more convenient to formulate the model in terms of market shares, that is:

(5) $$s_{ij} = m_{ij} - c_j = \tilde{\alpha}_j + \beta_j e_i + \gamma_j A_{ij},$$

where $s_{ij} = \log S_{ij}$, $c_j = \log C_j$, $S_{ij} = M_{ij}/C_j$, and C_j is the apparent consumption of product j in the United States, and $\tilde{\alpha}_j = \alpha_j - c_j$. A significantly positive γ_j indicates a GSP effect on U.S. imports of product j. However, because e_i might possibly omit a variable correlated with A_{ij}, γ_j might reflect other factors besides the GSP. To check for this possibility, we will also estimate equation (5) for a year before the GSP scheme was introduced. This gives the opportunity to test the hypothesis that γ_j is significantly positive after, but not before, the tariff change. In case γ_j turns out to be significantly positive in the pre-GSP year, we know that the model omits an additional explanatory variable, the effect of which is captured by A_{ij}. However, if this missing variable cannot be measured, and if we are willing to assume that the bias in the A_{ij} coefficient is constant, the test for a GSP effect will be whether there is a significant increase of γ_j over time. Such a method was applied by Sapir (1981) for evaluating the trade impact of the European Community's GSP.

Another possibility of testing for a GSP effect is to formulate model (2) in terms of changes in market shares from a year before to a year after preferences were introduced:

(6) $$(\Delta S_{ij}) = a_j + b_j(\Delta E_i) + c_j E_i^\circ + d_j A_{ij},$$

where (ΔS_{ij}) and (ΔE_i) refer to changes and the superscript $\circ$ indicates a year before the GSP. One of the deficiencies with cross-country regressions (5) and (6) is that, although the estimated γ_j and d_j indicate whether the GSP has a significant effect, they do not directly measure either its trade creating or its trade diverting effects. Essentially, this problem is caused by the absence of "normal trade" from those regressions, that is, trade not likely to be affected in any way by the GSP.

As far as model (3) is concerned, in keeping with our previous discussion, it may be written as either

(7) $$s_{ij} = \alpha_i' + \beta_i' e_j + \gamma_i' A_{ij},$$

or

(8) $$(\Delta S_{ij}) = a_i' + b_i'(\Delta E_j) + c_i' E_j^\circ + d_j' A_{ij}.$$

In these cross-product regressions, a significantly positive γ_i' or d_i' indicates gross trade creation due to the GSP if i is a beneficiary country. On the other hand, if i is a nonbeneficiary country, a significantly negative coefficient for A_{ij} indicates trade diversion. The trade creation effect may be obtained either as the difference between GTC and TD, or from the coefficients γ_i' or d_i' when i stands for all exports to the United States.

6.4   Impact of the U.S. GSP on Trade and Production

In this section we will attempt to measure the effects of the GSP on the U.S. economy for 1979, the last year for which all the data required for our study were available. Our analysis will be divided into three parts. First, we present the actual GSP preference margins for 1979 by major beneficiary country. In addition, we briefly review the trend of penetration into the U.S. market by beneficiary developing countries during the seventies. Second, we test whether the performance of beneficiary countries in the U.S. market between 1975 and 1979 may be statistically related to the GSP program. Third, we present estimates of the magnitude of the GSP's impact on U.S. trade and production.

6.4.1   Preference Margins and Market Shares

The possibility for beneficiary developing countries to expand their exports (and market shares) to the United States because of the GSP depends, in the first place, on the amount of trade subject to MFN duties. According to this criterion, the main beneficiary exporters in 1979 were Taiwan, Mexico, Korea, Hong Kong, and Brazil (see table 6.2, col. [2]). Given the amount of dutiable trade, the commodity structure and the GSP product coverage of each beneficiary determine the extent of its GSP eligible trade. Among countries included in table 6.2, these two factors have been relatively favorable for Chile, the Dominican Republic, and Haiti all of which have a high ratio of GSP-eligible to MFN-dutiable trade. The opposite holds for Malaysia, the Philippines, and India.

Besides the level of eligible trade, the potential effect of the GSP also depends on the size of the preference margin. This margin is potentially equal to the MFN duty on eligible products, of which the weighted average is shown in table 6.2, column (4). However as we have seen earlier, in practice due to various exclusions, beneficiary countries continue to pay what might be called "GSP duties" on eligible products. Their weighted average appears in column (5). The difference between the MFN and GSP duties is the actual preference margin which, as the figures displayed in column (6) indicate, varies substantially across beneficiaries. As equation (1) reveals, this margin tends to be higher the larger the MFN duty and the larger the proportion of eligible trade that

Table 6.2 **Imports, Duties and Preference Margins for Beneficiary Countries with over $100 Million of GSP-Eligible Imports, 1979**

Country	Imports ($ millions)			Duties and Preference on Eligible Trade (%)				Ranking		Preference Margin on Total Dutiable Trade (%)	Tariff Revenue Forgone ($ millions)
	Total (1)	MFN Dutiable (2)	GSP Eligible (3)	MFN Duty (4)	GSP Duty (5)	Preference Margin (6)	(6):(4) (7)	MFN Duty (8)	Preference Margin (9)	(10)	(11)
Mexico	8,980	5,491	1,927	7.50	5.12	2.37	32	7	15	0.83	45
Taiwan	6,426	6,305	2,526	9.22	2.87	6.35	69	3	4	2.54	160
Korea	4,348	3,907	1,151	9.23	2.46	6.77	73	2	2	1.99	78
Hong Kong	4,289	3,566	1,611	10.00	6.06	3.94	39	1	10	1.78	63
Brazil	3,383	1,852	947	3.74	0.89	2.84	76	17	13	1.45	27
Malaysia	2,249	923	184	4.97	3.19	1.78	36	16	17	0.35	3
Philippines	1,648	1,238	305	6.70	2.91	3.79	57	13	11	0.93	12
Singapore	1,532	1,197	372	7.63	2.85	4.77	63	6	8	1.48	18
Peru	1,235	381	187	5.29	1.90	3.39	64	15	12	1.66	6
India	1,148	672	184	6.74	1.43	5.32	80	12	7	1.46	10
Israel	774	652	299	8.34	0.34	7.99	96	5	1	3.66	24
Dominican Rep.	720	329	210	6.66	5.74	0.93	14	14	18	0.59	2
Thailand	646	299	111	7.38	1.91	5.47	74	8	5	2.03	6
Argentina	634	404	177	6.98	2.94	4.04	58	10	9	1.77	7
Chile	468	251	233	3.03	1.08	1.95	64	18	16	1.81	5
Yugoslavia	406	353	179	7.28	0.75	6.53	90	9	3	3.31	12
Portugal	272	259	116	6.88	1.41	5.40	78	11	6	2.42	6
Haiti	234	177	100	8.62	6.14	2.48	29	4	14	1.40	2
All beneficiaries	51,170	38,164	11,725	7.98	3.48	4.50	56	—	—	1.38	528

receives GSP treatment. In turn, this proportion is directly related to the application of rules of origin and competitive need limitations. In general, one should expect rules of origin to affect mostly small and specialized countries exporting highly processed goods with a high ratio of imported intermediate goods to sales value. On the other hand, competitive need limitations should mainly affect large or highly specialized countries. The figures in column (7) indicate that the countries most adversely affected by these rules are the Dominican Republic, Haiti, and Mexico, while those least affected are Israel, Yugoslavia, and India. The actual margin of preference was the highest for Israel, Korea, and Yugoslavia, and the lowest for the Dominican Republic, Malaysia, and Chile.

The product of the actual preference margin and the value of GSP-eligible trade is the tariff revenue foregone by the United States on GSP trade. For a given volume of imports and a given import price, this amount would also indicate the increase in export earnings by beneficiaries as a result of the GSP. If we accept this as a rough estimate of export effects, column (11) in table 6.2 indicates that Taiwan, Korea, and Hong Kong obtained the most benefit in this sense from U.S. preferences. However, this assumes that markets for imported goods are competitive: otherwise, part of this potential benefit for developing countries might be captured by powerful U.S. importers or intermediary traders.[24]

Between 1975 and 1979, the share of imports from GSP beneficiaries in U.S. consumption of manufactures increased from 1.77 to 2.49 percent.[25] Although relatively small on the aggregate level, the loss in market share to GSP countries by U.S. producers is unevenly distributed across products.[26] As indicated in table 6.3, this loss has been substantial for some products. Together, the top twenty products account for more than 40 percent of the total loss of sales for the entire manufacturing sector.

These changes in market shares may reflect the effects of the GSP scheme. However, they are likely to reflect other factors as well. Except for a brief setback in 1975, the market share of GSP countries for total manufactures increased steadily during the seventies. Therefore, the increase of the share since the beginning of the GSP scheme in 1976 is in part a continuation of a previous trend reflecting a long-run change in comparative advantage for certain products in favor of producers in developing countries.

A very rough method of assessing the importance of the GSP is to assume that the trend in market shares reflects long-run changes in international competitiveness, while positive deviations from the trend after 1976 for GSP countries indicate the effects of the GSP. Unfortunately, the period 1972–79 has been subject to economic shocks affecting trade, such as the oil crisis, the 1974 recession, and major currency realignments. Hence, it is difficult to isolate the long-run factors to give a reliable estimate of GSP effects. The trend-adjusted losses reported in

Table 6.3   **Loss of Market Share by U.S. Producers to GSP Beneficiaries for Twenty Products with the Largest Losses**

SIC Code	Description	Loss in Market Share, 1975–79 (percentage points)		1979 Market Share (%) GSP Countries
		Actual	Trend-Adjusted	
3021	Rubber and plastic footwear	24.9	9.3	54.3
3151	Leather gloves	16.6	16.6	30.0
3161	Luggage	15.4	10.9	25.1
3674	Semiconductors	11.0	8.7	31.7
3341	Secondary nonferrous metals	9.9	8.1	17.5
3676	Electronic resistors	9.7	5.4	14.0
3171	Women's handbags	9.5	0.0	30.9
3942	Dolls	9.1	9.1	26.7
3944	Games and toys	8.9	8.9	16.1
2435	Hardwood veneer and plywood	8.7	8.7	27.9
3629	Electrical industrial apparatus, nec.	8.7	8.7	15.7
3915	Jewelers' materials	8.7	8.1	48.9
3651	Radios and TVs	8.1	5.7	18.5
3111	Leather tanning	7.6	7.6	12.2
3172	Personal leather goods, nec.	6.8	4.9	12.7
3263	Copper foundries	6.8	4.8	9.1
3269	Nonferrous foundries, nec.	6.7	1.3	16.7
3675	Electronic capacitors	6.7	4.7	12.2
3949	Sporting goods	6.5	4.9	11.8
2499	Wood products, nec.	6.4	6.4	11.7

table 6.3 indicate that, for most of the industries listed, the GSP may have played an important role in accounting for the decline in market shares.[27] However, it is likely that the residuals still contain effects of other factors. Recovery from the 1974 recession has probably tended to increase market shares for imported products in general. In addition, it is possible that the increase in competitiveness for developing countries during the seventies accelerated during 1976–79. In any case, besides being rather crude, trend methods suffer from the fact that they do not permit statistical tests of their results.

6.4.2   Testing for GSP Effects

The Cross-Country Model

In this section, model (2), the cross-country regression, will be used to test for the existence of a GSP effect on the country pattern of U.S. imports for a sample of products. Besides the preference variable A_{ij}, the model should contain the main determinants of trade flows from different

countries to the United States. Variables often used in gravity models of international trade are measures of supply capacity, such as GNP or population in the exporting country, and of the distance between trading partners, to reflect transport costs. In this study we have used total exports of manufactures of a country to measure supply capacity. In addition, we have introduced the ratio of the stock of U.S. direct investment in the exporting country to the country's GNP as an indicator of its economic ties with the United States.

Relative factor endowments will influence the country pattern of U.S. imports. For labor-intensive standard products with low-skill requirements, U.S. imports are likely to be large from countries where physical and human capital are relatively scarce. Accordingly, we include in model (2) country measures of the physical capital/labor ratio as well as a measure of human capital.[28] For capital-intensive and technically advanced industries, however, U.S. imports are likely to come from countries where physical and human capital is abundant. The expected signs of the factor endowment variables will thus depend on the type of product.

The equation to be estimated may be written as follows:

$$(5a) \qquad \log S_{ij} = \alpha_j + \beta_{1j}(\log \mathrm{KL}_i) + \beta_{2j}(\log \mathrm{HC}_i)$$
$$+ \beta_{3j}(\log \mathrm{ME}_i) + \beta_{4j}(\log D_i)$$
$$+ \beta_{5j}(\log \mathrm{IN}_i) + \gamma_j A_{ij},$$

where S_{ij} is the market share of country i in product j, KL is the physical capital/labor ratio in country i, HC is the human capital intensity, ME is total manufactured exports, D is the distance between country i and the United States, IN is the U.S. direct investment/GNP ratio in country i, and A_{ij} is the actual preference margin on product j for country i. This equation was estimated for a sample of fifteen products defined at the four-digit level of the SIC. These products were selected because they were identified from ex ante calculations by Baldwin and Murray (1977) and Bayard and Moore (1979) of the Department of Labor as having the largest expected GSP effects. For each product, the estimation was made on a sample of thirty-six countries (of which eighteen were GSP beneficiaries) for both 1975 and 1979.[29]

The estimation results indicate that model (5a) performs generally well. As appendix table 6.A.1 shows, the coefficients of the manufacturing exports and direct investment variables have the expected positive sign in all cases, and most are strongly significant. The coefficient for the distance variable is negative, as expected in most cases, but generally not significant. The coefficients for the measures of physical and human capital intensity show varying signs and are in most cases not significant. The explanatory value of the regression varies between .4 and .8.

As far as the preference margin variable is concerned, the results in the left panel of table 6.4 show a positive and significant coefficient in 1979 for

Table 6.4 Coefficient Estimates for the Preference Variables: Cross-Country Model

SIC Code	Description	Equation (5a): Share Levels[a]		Actual Preference Margin[b] (%)	Equation (6a): Share Changes[a] Preference Variables Included		
		1975	1979		A_{ij}	$A_{ij}S_{ij}^{75}$	$A_{ij}S_{ij}^{75}$
2435	Hardwood veneer and plywood	93.4	73.8	.95	−74.3	53.2	51.8
		(1.1)	(.9)		(−.7)	(5.0)	(5.0)
2436	Softwood veneer and plywood	37.0	36.8	13.30	.9	.2	8.3
		(2.0)	(1.9)		(1.3)	(.01)	(.4)
2599	Furniture and fixtures, nec.	48.9	66.6	6.88	−3.1	13.9	13.2
		(3.0)	(3.7)		(−.5)	(3.7)	(3.9)
3079	Misc. plastic products	60.3	55.7	4.47	−1.6	24.2	24.2
		(3.1)	(3.4)		(−.4)	(4.2)	(4.3)
3161	Luggage	139	69.3	.19	−1703	1227	745
		(1.2)	(.7)		(−6.5)	(9.1)	(4.3)
3573	Electronic computing equipment	144	81.3	.79	−21.4	−37.5	−55.1
		(2.8)	(3.1)		(−.3)	(−.4)	(−1.2)
3574	Accounting machines	151	113	2.10	−331	100	69.2
		(2.7)	(3.8)		(−.8)	(1.5)	(1.3)

3651	Radios and TVs	146	147	.64	− 192	39.2	33.9
		(2.7)	(2.7)		(− 3.1)	(9.2)	(7.7)
3911	Jewelry, precious metal	16.5	31.4	9.07	− 95.5	9.7	− 10.6
		(2.1)	(2.9)		(− .9)	(.2)	(− .3)
3914	Silverware	9.7	24.7	3.33	− 9.3	13.9	13.5
		(1.1)	(2.5)		(− .6)	(1.1)	(1.1)
3915	Jewelers' materials	− .87	− 14.8	.81	− 99.1	− 2.5	− 1.7
		(− .1)	(− 1.1)		(− 1.6)	(− .3)	(− .2)
3942	Dolls	13.8	23.7	7.93	28.2	.6	.7
		(.8)	(1.8)		(1.1)	(.7)	(1.0)
3944	Games and toys	10.8	25.8	8.72	2.8	15.7	15.7
		(1.2)	(2.6)		(.2)	(6.9)	(7.0)
3949	Sporting goods, nec.	45.6	55.7	6.11	3.7	21.8	21.9
		(2.1)	(3.2)		(.2)	(10.2)	(10.5)
3691	Costume jewelry	1.03	12.3	15.66	3.5	2.5	2.9
		(.2)	(2.4)		(.5)	(2.2)	(3.3)

[a]The *t*-statistics appear in the parentheses.
[b]Average for all beneficiary countries.

twelve out of our fifteen products.[30] However, a closer examination of the estimates shows that only some of these twelve cases reveal a GSP effect, since in some cases the A_{ij} coefficient was also positive in 1975. For four products—silverware (3914), dolls (3942), games and toys (3944), and costume jewelry (3961)—the GSP coefficient increased substantially between 1975 and 1979, was not significantly different from zero in 1975, and became significantly positive in 1979. For furniture and fixtures (2599), jewelry, precious metal (3911), and sporting goods (3949), the coefficient also increased but was already significant in 1975. For those three products, the results indicate that the model omits an explanatory variable, the effect of which gives a bias to the A_{ij} coefficient. If the bias is assumed to be constant, the increase of the coefficient indicates a GSP effect. For the other products there is no indication of any GSP effect, since the γ coefficients did not increase.

The differences in the GSP effect among products seem to be associated with differences in average actual preference margins. The figures in the middle panel of table 6.4 indicate that, except for softwood veneer and plywood (2436), the products for which the preference coefficient has not increased at all were granted very low preference margins (1.42 percent on average). At the other end of the spectrum, the four products with the strongest GSP effects had preference margins averaging 8.91 percent.[31]

An alternative approach for the evaluation of GSP effects with the cross-country model is to estimate equation (6), which relates changes in U.S. market shares to the preference margins for our thirty-six supplying countries. The explanatory variables are different than those in equation (5a). We assume that the change in the market share of a country depends on its rate of increase of production capacity, measured here by the growth rate of GNP (GN_i), and on the rate of change of export prices (PX_i).[32] The higher the GNP growth and the lower the price increase, the more we expect the market share of a country to increase. Finally, as before, we allow for the possibility that changes in competitiveness of countries are linked to their relative endowments of physical and human capital (KL_i and HC_i).

For several reasons, one would not expect the GSP effect on a country's market share to be simply proportional to the preference margin. First, given demand and supply elasticities, the increase of the market share in percentage points will be greater, the higher the initial market share.[33] (There is obviously an upper limit to the possible increase.) Second, there may be a threshold effect; in the short period 1976–79, only the already established exporting countries, with already existing production and distribution capacity, may have been able to take advantage of the preference. Thus, the effect on countries whose initial shares were below a certain critical limit may have been virtually zero. We allow for

these possibilities by including the preference variable A_{ij} in the regression, together with an interaction term $A_{ij}S_{ij}^{75}$ equal to the product of the preference margin and the initial share.

The regression equation for the change in market share 1975–79 is:

$$(6a) \qquad \Delta S_{ij} = a_j + b_{1j}\,\mathrm{GN}_i + b_{2j}\,\mathrm{PX}_i + c_{1j}\,\mathrm{KL}_i$$
$$+ c_{2j}\,\mathrm{HC}_i + d_{1j}A_{ij} + d_{2j}A_{ij}S_{ij}^{75}.$$

If the coefficient of $A_{ij}S_{ij}^{75}$ is zero and that of A_{ij} is positive, there is no threshold effect: whatever its initial share, every country benefits from the GSP. If the coefficient of $A_{ij}S_{ij}^{75}$ is positive and the coefficient of A_{ij} is negative, there is a threshold effect: only when S_{ij}^{75} is larger than $(-d_{1j}/d_{2j})$ does country i benefit from the GSP. A positive coefficient for both $A_{ij}S_{ij}^{75}$ and A_{ij} indicates that every country benefits from the GSP, but the extent of the gain for a particular country depends on its share of the U.S. market in 1975.

As shown in appendix table 6.A.2, model (6a) performs well for some products; for others, the explanatory value is low. In most cases the variables measuring capacity growth and export prices show the expected sign, but coefficients are mostly not significant. This is also true for the factor endowments variables.

The results for the coefficients of the preference margin variables are shown in the right panel of table 6.4 for two sets of regressions, the second of which includes only the interaction terms $A_{ij}S_{ij}^{75}$. Apparently this term captures most of the GSP effect; it is significantly positive for eight out of fifteen products, regardless of whether A_{ij} is present or not. For most of these eight products, the A_{ij} coefficient is not significant. For luggage (3161) and radios and TVs (3651), however, it is significantly negative. The calculated critical share levels for these two products is .14 and .49 percent, respectively.[34] For luggage, this means that only countries with at least .14 percent of the U.S. market in 1975 actually gained from the GSP. These countries were Hong Kong, Korea, Mexico, Philippines, and Taiwan. For radios and TVs, the actual gainers were countries already with at least .49 percent of the market in 1975, that is, Brazil, Hong Kong, Korea, Malyasia, Philippines, and Taiwan. These two products have enjoyed only very small preference margins. Among the other six products with a significant GSP effect on share changes, four also showed signs of a GSP effect based on the estimation of regressions on share levels. These four products (i.e., 2599, 3944, 3949, and 3961) enjoyed large preference margins ranging from 6.1 to 15.7 percent.

The Cross-Product Model

Another way of evaluating the effects of GSP is to use model (3), the cross-product model, to test whether the preference variable A_{ij} helps to

explain the product composition of U.S. imports from a particular supplier or group of suppliers, that is, to explain interproduct differences in market shares.

Since physical and human capital can be assumed to be scarce factors in GSP beneficiary countries, we would expect the market share for these countries in a given year to be low for human- and physical-intensive products. Also, we would expect the market share to be high for products with a high preference margin.

The cross-product model could be expressed, alternatively, as determining the levels of market shares in different periods (eq. [7]), or as determining the changes of market shares from a base year to a year after the tariff changes (eq. [8]). In the latter case, the higher the preference granted for a product, the larger we expect the increase in GSP beneficiaries' market share to be. We have estimated both variants, for the market shares of imports from beneficiaries ($i = B$), nonbeneficiaries ($i = N$), and for total imports ($i = T$), for a sample of up to 208 products.[35] However, the regressions on share levels for 1975 and 1979 resulted in negative values for the coefficient of the preference variable for all three groups, including the beneficiaries' share in 1979.[36] The explanation is straightforward. First, MFN tariffs have distorted the composition of U.S. imports against products with high tariffs. Since the period 1975–79 is very short, full adjustment to the GSP has not taken place and this distortion still prevailed for beneficiary imports in 1979. Second, the preference margins (A_{ij}) are positively correlated with the MFN tariffs, that is, in absolute terms the larger the tariff, the larger the preference margin. The combination of these two factors produces the negative "effect."

For changes in market shares, we have estimated the equation:

$$\text{(8a)} \qquad \Delta S_{ij} = a'_i + c'_{1i}\, \text{KL}_j + c'_{2i}\, \text{HC}_j + d'_{1i} A_{Bj} \\ + d'_{2i}\, (A_{Bj} S^{75}_{Bj}),$$

where ΔS_{ij} is the change of the market share for product j for country group i, KL_j and HC_j are the physical and human capital intensities of product j, A_{Bj} the weighted average of the individual beneficiaries' A_{ij}'s for product j, and S^{75}_{Bj} the initial market share of beneficiaries. That the factor intensity levels, and not the changes, enter the equations means that the model describes a process of adjustment of the actual trade structure to an equilibrium structure determined by comparative advantage. A change of the structure of U.S. imports from developing countries toward products intensive in unskilled labor would then be expressed in negative coefficients for KL and HC in the equation for beneficiaries' share. The justification for including the preference variable together with the interaction term is analogous to that regarding

Table 6.5   Coefficient Estimates for the Cross-Product Model (8a)

Country Group	Explanatory Variables				
	KL	HC	A_B	$A_B S_B^{75}$	R^2
Beneficiaries	− .38	− .39	− .29	11.08	.59
	(.3)[a]	(1.5)	(3.2)	(15.4)	
Nonbeneficiaries	.15	.60	− .29	2.07	.02
	(.1)	(1.1)	(1.5)	(1.3)	
Total	− .23	.22	− .59	13.15	.16
	(.1)	(.3)	(2.1)	(6.0)	

[a]The *t*-statistics appear in the parentheses.

equation (6a). The results from the estimation of equation (8a) with a sample of 208 products appear in table 6.5.

The coefficients of KL and HC have the expected signs but are generally not significant. The estimates of the preference coefficients indicate the presence of (net) trade creation as well as gross trade creation, since the increase in the market shares for total imports, as well as for imports from beneficiaries, tend to be higher, the higher the preference is. There is no clear sign of trade diversion, that is, the preference variable is not significant in the equation for nonbeneficiaries. However, the effect of GSP on the market share for these countries can easily be obtained, given the effect on imports from beneficiaries and on total imports. For all these country groups, there seems to exist a strictly positive critical share level. The beneficiaries equation indicates the presence of gross trade creation for all products for which S_B^{75} was greater than 2.6 percent. The equation for total imports indicates that U.S. producers lost market shares as a result of the GSP when S_B^{75} was greater than 4.5 percent.

6.4.3   Calculating the GSP Effect on U.S. Trade and Production

The results of the estimation of our regression equations for both the cross-country and the cross-product models indicate that the GSP appears to have had a statistically significant effect on U.S. trade. Of course, it is difficult to argue that we have managed to isolate entirely the GSP from other factors affecting market shares. Hence, our estimation results must be used with considerable caution. This should be especially the case when using the coefficients of the preference variables to compute the GSP effects.

As we have mentioned earlier, the coefficients from the cross-country equations are not really well suited for the calculation of the GSP effects because of the absence of "normal trade." In addition, a major problem with these equations is that A_{ij} is correlated with the level of economic

development and therefore with country characteristics. Accordingly, the coefficient of this variable may tend to capture some of the effects of an increase in competitiveness for beneficiaries unrelated to preferences. In fact, an attempt to compute the GSP effects with the coefficients of equation (6a) gives, for some of our fifteen products, figures that are unreasonably high. Consequently, we limit ourselves to computations based on the cross-product equation (8a) where we have no reason to suspect a correlation between A_{ij} and product characteristics.

Using the results from table 6.5, we have computed the GSP effects reported in table 6.6.[37] Out of the 208 products in the sample, there were thirty-three for which we found a positive GTC effect. The total effect amounted to $930 million, of which 95 percent was accounted for by the top twenty products. Not surprisingly, ten of the fifteen products used in the cross-country regression because of their expected large GSP effects were found to have a positive GTC effect. In general our results indicate that trade creation is about two-and-one-half times larger than trade diversion.

For the sake of comparison, we have supplemented the results in table 6.6 with estimates of the GSP's trade creation effects based on the ex ante methods, using the formula

$$(9) \qquad \Delta M_{ij} = M_{ij}\, \eta_j\, [P_{ij}/(1 + t_j)],$$

where M_{ij} is the imports from beneficiary countries in 1979, η_j is the import demand elasticity, t_j the MFN tariff rate, and P_{ij} the preference margin.[38,39] Expression (9) has been calculated for all GSP beneficiaries and eligible products in two alternative fashions. In the first, we set P_{ij} equal to the MFN tariff t_j (i.e., the theoretical preference margin) as if no limitations affected GSP treatment. In the second alternative, we take into account the actual restrictive effects of the GSP rules by setting P_{ij} equal to the actual preference margin A_{ij} derived from equation (1).

The results of these computations, aggregated by product and by country, are shown in table 6.7 and 6.8, respectively. These figures represent the hypothetical decrease in imports that would have occurred in 1979 if preferences had been eliminated. They are purely indicative and should not be read literally.[40] Essentially, the products emerging here as having the largest effects from the GSP also show up in our ex post computations: games and toys, wood products, jewelry, sporting goods, and pottery products. For all GSP eligible products, expression (9) gives a total TC effect of $2.2 billion when the theoretical preference margin is used. On the other hand, the effect obtained by using the APM is $1.3 billion. The difference between these two figures is an estimate of the impact of GSP limitations on eligible products. As one would have expected, some of the products that have a very high TPM suffer heavily from these limitations. This is especially the case for toys and parts

(73795), sugar (15520), and rubber or plastic household articles (77215). Yet, on the whole, the top twenty products, with a ratio of APM to TPM of 63 percent, are less subject to limitations than the remaining eligible products, for which the equivalent ratio is barely 56 percent.

The figures in table 6.8 indicate a very high concentration of the TC effect in favor of Hong Kong, Korea, and Taiwan, which account for two-thirds of the total effect. Moreover, the top ten countries share 90 percent of this effect. As we have already seen (see table 6.2), GSP limitations affect individual suppliers to rather different degrees. For the leading trio, the average APM/TPM ratio is about 60 percent but with great variations between Hong Kong (36 percent) and Korea (71 percent). For the top ten countries, as well as for all the other beneficiaries, this ratio is roughly the same. Thus, somewhat surprisingly, competitive need limitations do not seem to discriminate against either the big exporters or countries with the largest gains from the GSP.

Given the effects of the GSP on U.S. imports of different products presented in the TC column in table 6.6, the effects on U.S. employment can be computed by assuming that increased imports replace domestic production on a dollar-for-dollar basis. This can be done by multiplying the figures in table 6.6 by the corresponding coefficients for labor requirements per million U.S. dollars of production for 1979. These calculations indicate that the direct effect of the GSP in those twenty industries that account for most of the trade effects amounts to a loss of 24,000 jobs. By using the coefficients of the U.S. input-output table, it is possible to also compute the indirect reduction in employment caused by the fall in demand for intermediate goods as a result of the GSP. The total (direct plus indirect) employment effect of the GSP is estimated to be a loss of 43,000 jobs. The biggest effects occur in the industries producing games and toys, dolls, and artificial flowers. In table 6.9 the employment effects have also been distributed by skill categories. The table shows that the employment of operative personnel is most affected.

The figures in table 6.9 cannot be interpreted as the net increase in unemployment in the United States caused by the GSP, nor the increase in total employment to be expected if the GSP were abolished. We would expect the GSP to result in an increase in employment in other parts of the economy, since increased imports from beneficiaries means an increase in demand for U.S. exports.

6.5 Policy Issues and Conclusions

In the previous section, we have attempted to identify the effects of the GSP on developing country exports to the United States and on U.S. production and employment for 1975–79. This type of exercise is complicated because so many factors influence trade besides tariffs. This has

Table 6.6   **Effects of the GSP on Imports from Beneficiary Countries for 1979 ($ million) Estimates Derived from Cross-Product Regressions**

TCSIC Code	1972 SIC Code	Description	GTC[a]	TC[b]	TD[c]	Imports from GSP Beneficiaries
3941	3944	Games and toys	90.9	58.8	32.1	416.5
3942	—[d]	Dolls	79.9	79.9	0.0[e]	163.3
3962	—	Feathers and artificial flowers	77.8	77.8	0.0[e]	109.9
3999	—	Manufacturers, nec.	76.0	57.3	18.7	408.2
2499	2492, 2499	Wood products, nec.	75.3	1.3	74.0	364.8
3961	—	Costume jewelry	74.7	54.9	19.8	103.0
3021	—	Rubber footwear	50.7	50.7	0.0[e]	722.1
3949	—	Sporting and athletic goods, nec.	50.4	19.9	30.5	327.0
3913	3915	Lapidary work	48.8	48.8	0.0[e]	711.4
3651	—	Radio and TV receiving sets	47.2	42.9	4.3	1,608.2
3269	—	Pottery products, nec.	40.5	24.5	16.0	89.5
2432	2435, 2436	Veneer and plywood	34.0	25.0	9.0	525.6
2911	—	Petroleum refining	30.1	16.6	13.5	4,536.8

SIC	TCSIC	Product				
3171	—	Women's handbags and purses	28.9	28.9	0.0^e	256.2
3339	—	Primary nonferrous metals, nec.	24.8	24.8	0.0	1,038.6
2819	—	Industrial inorganic chemicals	12.7	0.0^f	12.7	285.9
3662	—	Radio and TV communication equipment	12.0	0.0^f	12.0	1,005.8
3699	—	Electrical equipment, nec.	11.6	9.3	2.3	102.3
3674	—	Semiconductors	10.4	10.4	0.0^e	1,852.3
3943	3944	Children's vehicles	10.1	6.5	3.6	46.3
All above products			886.8	638.3	248.5	
All manufactured products			928.7	658.3	270.4	

[a]Calculated with equation (8a), for $i = B$.

[b]Calculated with equation (8a), for $i = N$.

[c]Calculated with equation (8a), for $i = T$.

[d]A line means that the SIC and TCSIC codes are identical.

[e]The estimated TD effect was negative and set equal to zero.

[f]The estimated TC effect was negative and set equal to zero.

Table 6.7   **Effects of the GSP on Imports from Beneficiaries for 1979**
                       ($ millions) Estimates Calculated from Equation (9)

| TSUS Code | Description | Trade Creation | | Imports from GSP Beneficiaries |
		APM	TPM	
53494	Chinaware	46.0	47.5	56.3
74038	Jewelry parts	40.7	57.0	70.1
72733	Wood chairs	33.9	34.5	83.0
73795	Toys and parts	37.7	143.8	256.5
73740	Toy animals	32.4	36.1	64.4
74010	Jewelry	29.6	52.3	131.1
72735	Furniture of wood	29.3	30.8	113.9
77215	Household articles of rubber/plastic	25.5	26.0	55.4
72755	Other furniture nes.	23.7	25.0	45.9
64897	Pipe tools, wrenches, etc.	23.2	23.5	62.3
77460	Articles of rubber/plastic nes.	18.6	62.2	133.4
69440	Airplanes	17.4	18.1	63.4
79115	Fur wearing apparel	17.2	17.5	51.0
67435	Machine tools	16.7	16.9	78.3
73499	Ski equipment	16.2	16.4	52.8
73415	Dice, chessmen, etc.	15.9	16.0	47.0
73454	Baseball gloves	15.6	19.1	38.9
73715	Construction kits	15.0	15.2	27.1
77142	Plastic films	14.9	25.2	44.7
15520	Sugar[a]	14.6	68.3	880.0
All above products		479.1	763.4	—
All GSP eligible products		1,291.3	2,218.2	—

[a]Since sugar is also protected by quotas, this import effect is not likely to be realized.

Table 6.8   **Effects of the GSP on the Main Beneficiaries in 1979 ($ millions)**
                       Estimates Calculated from Equation (9)

| Country | Trade Creation | | GSP Eligible Imports |
	APM	TPM	
Taiwan	454	655	2,526
Korea	212	299	1,151
Hong Kong	162	455	1,611
Mexico	83	262	1,927
Israel	75	78	299
Brazil	56	87	947
Yugoslavia	41	42	179
Singapore	40	66	372
Philippines	23	36	305
India	19	23	184
All above countries	1,165	2,003	9,501
All beneficiaries	1,291	2,218	11,725

Table 6.9   **Effects of the GSP on U.S. Employment**

TCSIC Code	Direct Effects All Skill Groups	Direct Plus Indirect Effects						
		All Skill Groups	Professional, Management	Clerical, Sales	Craftsmen	Operatives	Labor, Service	Farmers
3941	2,181	4,198	683	806	694	1,652	347	12
3942	2,964	5,705	927	1,095	943	2,245	471	16
3962	3,439	6,045	941	1,245	934	2,427	412	93
3999	2,430	4,211	665	796	699	1,690	344	17
2499	52	90	12	11	14	39	14	0
3961	1,795	3,205	505	609	549	1,290	247	5
3021	2,672	3,985	563	624	532	1,891	360	15
3949	702	1,371	221	259	227	529	129	6
3913	1,596	2,851	449	542	488	1,147	220	5
3651	837	2,673	601	489	420	957	202	4
3269	1,864	1,920	230	233	228	1,024	203	2
2432	588	1,389	168	150	218	445	393	15
2911	68	322	78	78	56	66	42	2
3171	1,477	2,430	289	379	309	1,274	147	32
3339	419	915	154	168	186	297	107	3
2819	—	—	—	—	—	—	—	—
3662	—	—	—	—	—	—	—	—
3699	358	596	123	104	86	232	50	1
3674	375	621	138	107	79	250	46	1
3943	241	643	75	89	77	183	38	1
All above products	23,858	42,985	6,822	7,784	6,739	17,638	3,772	230

been especially the case during the seventies, when major disturbances have affected world trade on both the demand and supply sides. In particular, the acquisition of know-how by leading developing countries and their promotion of manufactured exports have resulted in increased international competitiveness, which has coincided with the operation of the GSP. For these reasons, and because it has been rather limited in scope, the effects of the GSP on the performance of developing countries in the U.S. market are difficult to evaluate.

By designing a methodology enabling us to investigate U.S. imports for individual countries and products, we have attempted to isolate the GSP from other determinants of trade. In our cross-country models, we can only claim partial success because our sample design is such that, in some cases, the GSP variable tends to reflect other factors besides tariff preferences. In this respect, we fared better with our cross-product models for which no such problem seems to arise.

Our cross-country regression results clearly indicate that the GSP program has affected trade flows for products enjoying large preference margins. The results of our cross-product regression also indicate the presence of positive GSP effects on imports from beneficiaries, but only in cases where these countries were already major suppliers before 1976. Our regression results indicate that a beneficiary country is more likely to gain from the GSP for a certain eligible product the larger both the preference margin *and* the share in the U.S. market that was already acquired prior to 1976. Obviously, this conclusion to a large extent reflects the fact that the period covered by our investigation is extremely short.

Using the results of our cross-product regressions to estimate the GSP effects, we obtain a gross trade creation effect of nearly $1 billion, which amounts to 15 percent of GSP duty-free imports and 2 percent of total imports from beneficiaries by the United States in 1979. Computations based on the traditional formula of ex ante studies, but using actual instead of theoretical preference margins, gave somewhat larger effects.[41] The trade creation effect, which according to economic theory will lead to an increase in economic welfare in the United States, is more than twice the amount of the trade diversion effect, which is welfare-reducing. Although the overall effects tend to be small, they are large for certain products. Moreover, the effects tend to be concentrated to a few products with high margins and large initial market shares for beneficiaries. Finally, the effects are unevenly distributed among beneficiary countries.

It is likely that the period 1975–79 was too short to allow for the emergence of the full effects of the GSP, in particular with respect to exports of new products by developing countries or new suppliers of more traditional items. In addition, uncertainties related to the functioning of the system have probably also restricted the increase of exports from

beneficiaries. Indeed, the way competitive need limitations are designed, it is sometimes difficult to assess whether or when a particular supplier will lose its beneficiary status for a given product. For instance, of the forty-two TSUS items for which India lost this status from January 1976 through March 1983, the average period without preferences was three years, often not consecutive; only for three products did India not receive GSP treatment throughout the entire seven years.

Since March 1981, a system of "discretionary graduation" has added a new source of uncertainty. Under this additional limitation to the GSP scheme, every March the U.S. administration permanently removes certain countries from GSP eligibility on certain products in response to petitions filed by U.S. producers or labor unions. Removal decisions are based on a country's level of development, its competitiveness in a specific product, and the overall economic interests of the United States. So far, the top seven beneficiaries—Taiwan, Korea, Hong Kong, Mexico, Brazil, Singapore, and Israel—have, to varying degrees, been affected by discretionary graduation. For most products, these countries were already affected by competitive need limitations. Some U.S. importers have been complaining that the rules governing discretionary graduation are too vague and give rise to arbitrary decisions by the administration.

This new system is only one of several alternative graduation schemes being considered in the United States for phasing the dominant suppliers out of the GSP program. Other options include: changes in product coverage to eliminate additional import-sensitive products, changes in country coverage to exclude countries above a certain per capita GNP line, or changes in GSP limitations.

The first step in reviewing these alternative options is to specify the different and sometimes conflicting objectives of the U.S. GSP, as reflected in guidelines of the U.S. GSP which specify the need to consider the effect of preferences on the level of economic development of developing countries as well as on U.S. producers.

The GSP should promote exports and economic growth, in particular, for countries at the lowest level of development—measured, for instance, by the per capita income. In addition, an objective for U.S. trade policy in general presumably is to promote an efficient production structure by increased international division of labor. These objectives would call for a GSP designed to result in trade creation. On the other hand, from a protectionist perspective, the ideal GSP, that is, one that helps developing countries without hurting U.S. producers, would be a scheme that generates only trade diversion. The exclusion of certain products from the GSP clearly serves a purely protectionist purpose. These exclusions can be expected to be products with large imports and high comparative costs because of low requirements for human skills and technical knowl-

edge. In this case, countries on the lowest level of development can be expected to suffer greatly from limited product coverage. On the other hand, competitive need limitations might, in principle, favor both U.S. producers and low-income developing countries at the expense of large and established developing country exporters. Whether, indeed, these limitations benefit the poorest developing countries needs to be examined. One measure of the impact of competitive need limitations on beneficiary countries is the ratio between the actual and theoretical preference margins reported in table 6.2, column (7). A system of limitations that benefits the poorest countries would imply a negative correlation between this ratio and an index of the level of development, like per capita GNP. From the figures in table 6.2, this does not seem to be the case.[42] Thus, one suspects that the main effect of competitive need limitations has been to protect U.S. producers rather than redistribute the benefits of the GSP to the least developed countries.

Graduation could be viewed as a new instrument aimed at helping the poorest developing countries benefit from the GSP. However, the targeting of the largest (rather than the richest) beneficiaries seems to indicate that, for the moment, graduation is simply another manifestation of protectionism.[43] Yet it is legitimate for graduation to go hand in hand with the concept of preferences. What is needed is for instruments like competitive need limitations or graduation to be clearly aimed at clearly stated objectives.

Granted that the objectives of the GSP are to promote industrialization in the developing countries (especially the poorest ones) and the international division of labor according to comparative advantage—subject to a relatively smooth adjustment of U.S. producers: How should a desirable GSP program be designed? To our mind, such a program should be comprised of three elements. First, its product coverage should be widened as much as possible to include those products where the least developed countries are likely to be most competitive. Second, competitive need limitations should be connected to the level or the rate of increase of import penetration in general, not to exports from individual countries; also, they could be linked to an injury test. Finally, graduation should become a rule and be based on the stage of development (measured, for instance, by the per capita income) rather than on the size of exports. The innovative aspect of this package is the trade-off between graduation and wider product coverage.

So far only a limited number of products and countries have actually been affected by the GSP. This is the result of both the short time and the limited scope of its operation. The modesty of its success is also related to the complexity of the scheme which has recently increased with the introduction of graduation. The forthcoming review of the GSP by Con-

gress will decide on its future shape and especially on the future of graduation. It is hoped that this paper will contribute to a better understanding of the GSP and help in making future choices.

Appendix

1. Tariff preferences are granted to GSP-eligible products defined at the five-digit level of the tariff schedule of the United States (TSUS). For each of these products a yearly computer tape available from the Office of the U.S. Trade Representative (USTR) provides data on total imports, imports from all nonbeneficiaries, imports from each beneficiary country distinguishing between duty-free and MFN (i.e., GSP-excluded) trade, and the ad valorem MFN tariff rate. These data were used to construct table 6.2.

2. In addition to the above data, the ex ante computation underlying table 6.7 and 6.8 also required estimates of import demand elasticities. These were generously provided by Robert Baldwin for all products defined at the four-digit level of the 1967 Input-Output (I-O) industry classification. Import demand elasticities for five-digit TSUS products were derived by matching the I-O and TSUS classifications.

3. Ex post computations required first the construction of the shares of imports in U.S. apparent consumption, where apparent consumption is defined as the sum of domestic production and imports minus exports. This was done for all products defined at the four-digit level of the 1972 Standard Industrial Classification (SIC).

4. To approximate the GSP product coverage, we restricted ourselves to manufactured products, that is, SIC codes 2011 through 3999, and excluded the following items:

   2011–2099, food and kindred products;
   2111–2141, tobacco manufactures;
   2211–2299, textile mill products;
   2311–2399, apparel and other textile products;
   3131–3149, footwear and footwear cut stock;
        3211, flat glass; and
        3873, watches.

5. The figures in table 6.3 were computed using four-digit SIC data.

6. In addition to market share data, the cross-country equations of section 6.4.2 required country characteristics. These were obtained as follows:

   a. Data on the physical capital/labor ratio (KL) and human capital (HC) were generously provided by Bela Balassa. The beneficiary

countries (eighteen in all) included in the regressions are: Argentina, Brazil, Hong Kong, India, Israel, Korea, Malaysia, Mexico, Morocco, Pakistan, Philippines, Portugal, Singapore, Taiwan, Thailand, Tunisia, Turkey, and Yugoslavia; the nonbeneficiary

Table 6.A.1   *t*-Values for the Coefficients of Equation (5a) Estimated for 1979

SIC Code[a]	Explanatory Variables						R^2
	KL	HC	ME	*D*	IN	*A*	
2435	− .62	− .34	2.51	.70	2.68	.88	.41
2436	.30	− .70	1.60	− 1.57	1.38	1.85	.43
2599	.44	1.06	4.45	− 1.27	1.69	3.67	.67
3079	.80	.43	5.62	− .89	3.46	3.41	.76
3161	− 2.37	.98	4.14	− 1.97	.25	.70	.50
3573	− 1.18	.51	6.48	− 2.22	3.69	3.09	.81
3574	− .91	− .12	7.13	− 2.19	2.68	3.80	.82
3651	.10	− 1.94	3.71	− .69	3.83	2.72	.53
3911	.80	− .45	3.83	.58	2.23	2.89	.55
3914	− 1.22	.29	5.71	− .83	.95	2.50	.61
3915	− 1.58	− .54	3.65	.25	1.13	− 1.12	.45
3942	− 1.87	1.40	3.84	− 1.02	1.59	1.76	.55
3944	− 1.33	1.53	5.36	− .49	1.53	2.60	.67
3949	.10	.93	4.84	− .40	1.00	3.16	.68
3961	− .32	− .63	4.45	.41	3.12	2.41	.57

[a]For the description of the products, see table 6.4.

Table 6.A.2   *t*-Values for the Coefficients of Equation (6a) Estimated for 1975–79

SIC Code[a]	Explanatory Variables					R^2
	GN	PX	KL	HC	AS	
2435	.42	− .16	1.17	− .92	5.04	.50
2436	− 1.12	− .87	− .75	1.35	.45	.14
2599	− .08	.77	− .44	− .04	3.88	.45
3079	.60	− .16	1.17	.94	4.26	.47
3161	.98	− .41	.68	− .46	4.34	.54
3573	1.19	− .76	− .33	1.67	− 1.16	.16
3574	1.11	− .84	− .27	1.78	1.25	.22
3651	.42	− 1.12	− .12	− .09	7.71	.75
3911	− .21	− .14	− .01	− .07	− .25	.01
3914	4.35	− .94	− .72	.86	1.12	.44
3915	− .97	− .37	− .36	− .77	− .17	.10
3942	4.75	− .95	− .36	.76	.96	.55
3944	.64	− .81	− 1.26	1.18	7.02	.75
3949	2.43	− .23	1.99	− .65	10.47	.87
3961	3.83	− .85	1.37	− .16	3.31	.66

[a]For the description of the products, see table 6.4.

countries included (also eighteen) are: Australia, Austria, Belgium-Luxemburg, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom.

b. Data on manufactured exports (ME) were derived from International Monetary Fund (IMF), *International Financial Statistics*, and the World Bank, *World Development Report*.

c. The ratio of U.S. investment to GNP (IN) was derived from U.S. Department of Commerce, *Selected Data on U.S. Direct Investment Abroad 1950–76*, 1982.

d. Data on sea distances (*D*) were taken from U.S. Naval Oceanographic Office, *Distance Between Ports*, 1965.

e. The relative price variable (PX) was constructed with data from IMF, *International Financial Statistics* as

$$PX = (WPI^{79}/WPI^{75})/(EX^{79}/EX^{75}),$$

where WPI is the wholesale price index and EX the dollar exchange rate.

7. Actual preference margins (*A*) for each beneficiary country and each product were computed on the basis of duty collected and custom values for seven-digit TSUS products. The aggregation to four-digit SIC products and to countries was made over MFN dutiable trade only.

8. The cross-product equations of section 6.4.2 required industry characteristics. These were taken from the U.S. International Trade Commission's data bank which uses its own industry classification called TCSIC. This classification is closely related to the 1967 SIC. We had to aggregate our four-digit 1972 SIC market share and preference data into the four-digit TCSIC. This was done with a concordance developed in great part by Steve Parker.

9. Most of the trade and production data described in this appendix belong to the data base developed at the University of Wisconsin-Madison with financial support from the U.S. Department of Labor.

Notes

1. For further details about the origin of preferences see UNCTAD (1979, chap. 1) and Murray (1977, chap 1).

2. See U.S. Congress (1967, 79).

3. The EEC GSP which originally was also granted for ten years has already been renewed for another ten years.

4. The operation of the GSP during its first five years is reviewed in U.S. Congress (1980).

5. The last three conditions may be waived if the president determines that doing so is in the national economic interest of the United States.

6. Hence, the developing countries which are nonbeneficiaries of the U.S. GSP are: China and the other communist countries, except Romania and Yugoslavia; the OPEC members, except Ecuador, Indonesia, and Venezuela which were designated as beneficiaries effective 30 March 1980; Greece and Spain which grant preferences to the EEC (Portugal became a beneficiary on 1 October 1976, following its decision to reduce preferences for EEC countries on products of interest to the United States); a few countries which have expropriated U.S.-owned property without compensation (P.D.R. of Yemen, Uganda up to 30 March 1980, and Ethiopia since that date).

7. The GSP schemes of the other major industrialized countries contain similar dispositions.

8. Section 503 does not specify which electonric, steel, and glass articles are import sensitive. The precise determination is made by the president in consultation with various parties on the basis of the probable economic effects of GSP treatment on domestic producers of similar products.

9. See Office of the U.S. Trade Representative (1981, 64–70; 1982, 1).

10. The U.S. GSP contains provisions of cumulative origin for beneficiary countries which are members of designated regional economic associations.

11. This argument is developed by Murray (1977, 89–92).

12. This limitation does not apply to eighty-three products which the Trade Policy Staff Committee considers as not being produced in the United States. For their list, see Office of the U.S. Trade Representative (1981).

13. A de minimis provision effective since 30 March 1980 allows the president to waive this limitation in cases where total U.S. imports of a product does not exceed a certain dollar value to be adjusted annually ($1 million for 1980).

14. This value has grown from $26.6 million for 1976 to $50.9 million for 1982.

15. The date for implementing annual competitive need exclusions and changes in the GSP product list was changed from sixty to ninety days after the end of the calendar year starting in 1980.

16. Obviously the only imports of eligible products actually receiving GSP treatment are those for which preferences are requested and rules of origin are fulfilled. Also, it should be noted that during a calendar year (from January 1 through December 31) some imports would be duty-free and some at the MFN rate if a change in GSP treatment occurred on 30 March.

17. Of the $30.6 billion excluded due to country restrictions, over 90 percent came from OPEC countries. Since the MFN duty on oil is very low, the loss of preferences from these restrictions is not very important.

18. For surveys of methods and results, see Verdoorn and Van Bochove (1974), Sellekaerts (1973), Corden (1975), and Baldwin (1983).

19. For the remaining imports, the preference margin is actually equal to zero.

20. Note that although the TPM for a given product is the same across all GSP beneficiaries, the APM varies across countries.

21. See, for instance, EFTA (1972).

22. Examples of the former category are Leamer (1974) and Sapir and Lutz (1981); examples of the latter are Baldwin (1979) and Branson and Monoyios (1977).

23. Obviously, A_{ij} is equal to zero when either i is a nonbeneficiary country or j is not a GSP-eligible product.

24. This point is made by McCulloch and Pinera (1977).

25. For the definition of manufactures used throughout this section, see the appendix.

26. This is calculated for all four-digit SIC industries as the increase in the share of imports from GSP countries of consumption, minus the loss (if any) of market share of nonbeneficiary countries.

27. The formula used to calculate the trend-adjusted increase in market shares in the period 1975–1979 is

$$dS^* = S_{79} - [4(S_{75} - S_{72})/3 + S_{75}],$$

where S_{79} is the 1979 market share, and the expression in brackets is the projected share in 1979 obtained by extrapolating the 1972–1975 trend. In those cases where dS^* exceeds the actual change dS, the trend-adjusted value is set equal to dS. If dS^* is negative, the adjusted value is set equal to zero.

28. The variables used in the equations are described in greater detail in the appendix.

29. Their list is given in the appendix.

30. The three products with nonsignificant coefficients are 2435 (hardwood veneer and plywood), 3161 (luggage), and 3915 (jewelers' materials).

31. The other three products showing some GSP effects—(2599) furniture and fixtures, (3911) jewelry, precious metal, and (3949) sporting goods—had an average margin of 7.35 percent.

32. To measure growth of supply capacity we used the rate of growth of real GDP instead of growth of manufacturing exports (ME in the previous model), since the latter could not be obtained in constant prices. We assume that a high rate of increase of export prices, PX, results in a fall in the market share. (The definition of PX is given in the appendix). A price index variable would be meaningless for the share level equation.

33. Let η be the import-demand elasticity and ϵ the export-supply elasticity. For a given level of consumption, the market share change is proportional to the product of the preference and the initial share:

$$\Delta S_{ij} = \left(\frac{\epsilon\eta}{\epsilon - \eta}\right) S_{ij}\left(\frac{\Delta t_{ij}}{1 + t_i}\right),$$

where Δt is the preference and t the MFN tariff rate.

34. The critical share value (times 1,000) S_{ij}^{75} is the solution to the equation

$$\hat{d}_{1j} + \hat{d}_{2j} S_{ij}^{75} = 0,$$

where $\hat{d}_{1j}$ and $\hat{d}_{2j}$ are the estimated regression coefficients.

35. As we indicate in the appendix, the products used in these equations are defined at the four-digit level of the TCSIC. The characteristics were not available for all products, hence the sample size varied according to the variables included in the model.

36. The estimation results for equation (7a) are not reported here for lack of space.

37. These were computed as $\hat{d}_{1i}A_{Bj} + \hat{d}_{2i}(A_{Bj}S_{Bj}^{75})$.

38. For the various assumptions underlying the use of this formula see, for instance, Baldwin and Murray (1977).

39. Since we are primarily interested in the effects of the GSP on U.S. production, we disregard the trade diversion. In any event, its computation required data not readily available.

40. This latter problem could have been avoided if we had, instead, based our computations on trade figures for 1975, that is, the last year before the introduction of the GSP. However, we prefer our procedure because it does provide an estimate of the value of the GSP in 1979 which accounts for the autonomous growth of U.S. imports from beneficiary countries between 1975 and 1979.

41. Part of the reason for this is that the ex ante computations cover all products instead of manufactures alone. In addition, as indicated in note 40, they tend to overestimate the effects.

42. A similar finding was made by Weston et al. (1980) for the EEC GSP.

43. For an interesting discussion of the effects of graduation on the least developed countries, see U.S. Department of Labor (1979).

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Comment   Tracy Murray

The paper by Sapir and Lundberg empirically examines the U.S. program of tariff preferences in favor of developing countries. Their objective is to quantify the effects of the U.S. Generalized System of Preferences (GSP) on (1) developing country exports to the United States and the distribution of such exports across products and across countries, and (2) U.S. production and employment of competing products in total and by sector. Noting that the authorizing legislation for the U.S. GSP automatically terminates the program in January 1985 and that Congress is likely to incorporate a number of modifications in a renewed program, the authors also analyze the effects of selected modifications on developing country exports and U.S. production and employment.

A casual reading of the paper is sufficient to convince any reader that the authors have done a careful and professional job of empirically examining a very complicated trade policy. Though the rigorous critic might be somewhat uncomfortable with their results, I find they meet the very important test of "reasonableness." I find no surprises in their results that (1) U.S. imports under the GSP program were stimulated by roughly 15 percent[1] (2) that GSP benefits are heavily concentrated by product and by beneficiary developing country, and (3) that the adverse effects on U.S. production and employment are minimal.

Given my general agreement with the empirical results and given that the focus of this conference is on trade policy, I have nothing more to say

Tracy Murray is professor of international economics and business at the University of Arkansas.

about the impact of the GSP as it is currently structured. I am more interested in the alternative modifications that are likely to be incorporated into a renewed GSP, the political process of which is already under way.

The major issues of controversy would include the following:
- the list of beneficiary developing countries and the extent to which reciprocal concessions might be required by the United States;
- the list of eligible products and the extent to which the poorer developing countries can benefit from a GSP program that excludes import-sensitive (generally labor-intensive) products;
- the desire to achieve a more equitable distribution of GSP benefits across the developing countries than currently occurs, given the competitive need criteria and the discretionary graduation policy;
- the desire to safeguard U.S. producers and workers in those isolated cases in which GSP trade might be unduly burdensome; and
- the problem of how to improve the administration of the GSP, especially the annual reviews resulting in modifications in the GSP due to the competitive need criteria and the more ad hoc alterations due to graduation, product review, etc.

The authors examine several of these issues and are able to provide one very important insight. In particular, the competitive need criteria have not operated to promote GSP trade for the poorer beneficiaries at the expense of the more advanced beneficiaries, that is, it has not contributed to a more equitable sharing of GSP benefits across developing countries. Instead the effect of the competitive need system is to benefit U.S. production at the expense of the impacted beneficiaries (more advanced and less advanced). Unfortunately, the empirical results of the paper do not lend themselves to broader application regarding the issues of concern.

Nevertheless, the authors' examinations of the GSP (of the United States and of other donor countries) enable them to suggest answers to some of the questions raised above. They suggest "a desirable GSP program . . . should be comprised of three elements." First, expand the product coverage as much as possible to benefit the poorer beneficiaries. Second, since the competitive need criteria are not a benefit-sharing technique they should become safeguard measures based on import penetration and linked to an injury test: Third, graduation should be based on the stage of development rather than produce-specific export performance. I find these three elements to be inadequate to deal with the political realities surrounding the GSP.

In the first place, a renewal of the GSP is not a foregone conclusion. There is substantial political opposition to any GSP program involving a broad product coverage and a broad beneficiary list. So long as the more

advanced developing countries are included in the GSP, the product coverage will be severely limited to the point that the least developed will benefit minimally, if at all. For example, Belize in Central America exports three types of goods—sugar (which is included in the GSP but subject to import quotas), citrus fruit juice, and roughly $5 million in textiles and apparel (mostly men's and boys' garments). Belize cannot and will not benefit from the U.S. GSP unless textiles and apparel are included; this situation is common among a large number of the poorer developing countries. And even if the top ten exporting beneficiaries (such as China-Taiwan, Hong Kong, Korea, Mexico, Brazil, etc.) were "graduated" from the GSP, a number of middle and lower income beneficiaries (such as India) have substantial capacities to export labor-intensive products to the point of displacing domestic production and employment. Thus, there will have to be political compromises if the GSP is to be renewed. And if the U.S. GSP were not renewed, U.S. relations with the third world, to say nothing about the other GSP-granting countries, would deteriorate dramatically. In fact, it should be recognized that the GSP is not really a trade policy at all but instead a policy to promote U.S. relations with developing countries, especially those in Latin America and the Caribbean.

A second point that should be emphasized is that the various aspects of the GSP are highly interdependent. As indicated above, a broad product coverage is inconsistent with a long beneficiary list. It is literally impossible to design a straightforward GSP that equitably benefits all developing countries without adversely affecting U.S. producers and workers. Given this interdependence, I believe that even an "ideal" GSP must be significantly more complicated than the authors suggest and must incorporate political as well as economic considerations.

At the risk of sticking my foot in my mouth, I will venture to suggest that an "ideal" GSP program contains the following elements:

1. To maximize the foreign policy benefits, the beneficiary list should be broad and in line with those of the other GSP-granting countries. The United States should not solicit bilateral reciprocal concessions or attempt to coerce special behavior as a price for beneficiary status. The GSP benefits are not of sufficient importance to obtain large concessions from individual developing countries; small concessions are not worth the ill-will that would be generated.

2. The product list should be as broad as possible, taking into consideration the general beneficiary list and domestic producers and workers interests, that is, roughly as it is today. This, of course, poses a problem for the lower-income beneficiaries that simply cannot produce the manufactured products covered by the current GSP program. There are two approaches to this problem. One is to ignore it and recognize that any

trade policy will benefit some countries more than others; the goal of an equitable distribution of benefits across developing countries is literally an impossible dream.

A second approach would be to include in the authorizing legislation a provision for the selective inclusion of products of export interest to the least developed. Such a provision would be consistent with the international agreement on the desirability of special measures in favor of the least developed among the developing countries. To safeguard the interests of the least developed as well as domestic producers and workers, the more competitive beneficiaries could be immediately denied GSP treatment on these products under a product-graduation provision (see below).

3. As reported by Sapir and Lundberg, the competitive need limitations do not increase the GSP benefits of the poorer beneficiaries (though their *share* may increase by reducing total GSP trade). Also as pointed out, the competitive need limitations are ill-designed to safeguard domestic producers and workers. Thus, the concept should be discontinued.

Politically, however, I suspect that some mechanism to *graduate* the more competitive beneficiaries will be included. The idea of graduation is that as a country develops it becomes more competitive. Eventually the country reaches a point that preferences are no longer justified. Finally, the country progresses to the point that it should join with the other more-developed countries and assist the less-advanced countries. The problem with administering graduation is that economic development is gradual and uneven. A country may be internationally competitive in some sectors and not in others; it may be competitive in the early stages of processing but not in the more advanced stages; it may be competitive in nontechnical standardized products but not in the more sophisticated products. Because of these complications, it would be literally impossible to establish objective criteria for the graduation of countries. Therefore, any attempts to graduate a country from the beneficiary group to the nonbeneficiary group would be arbitrary—and, in all likelihood, political. There would undoubtedly be cases in which a particular beneficiary country would be graduated when other more advanced countries continued to enjoy GSP treatment; some countries would be graduated from one or more of the GSP programs but not from others.

A more logical, fair, and pragmatic approach would be to graduate countries gradually as their economies become more internationally competitive, that is, countries should be graduated product by product, where products are defined by stage of processing as is commonly (though imperfectly) done in the Tariff Schedules of the United States. Establishing general objective graduation criteria is admittedly quite difficult. Some products require a larger scale of operation to be competitive than others. And even more obvious, a predetermined share of the U.S.

import market is irrelevant in determining international competitiveness. The faults of the current competitive need criteria for graduation are obvious; however, I defy anyone to come up with rigorously justifiable criteria that can be made operational.

To establish objective graduation criteria, a pragmatic compromise will have to be the answer. My suggestion is to make the criteria as simple as possible; that is, adopt a single-value limit. Though I do not know what the value should be, to be politically acceptible to the beneficiaries, I suggest that it be set at a level such that initial graduation (in aggregate value) be no larger than the current trade denied GSP treatment because of the competitive need criteria.

Finally, the graduation value limit should be completely separated from any safeguard mechanism designed to protect the interests of domestic producers and workers. It may be desirable to establish a special graduation concept for products that might be selected for inclusion in the GSP to benefit the least-developed countries (see item 2. above).

4. There should be an objective safeguard mechanism to protect the interests of domestic producers and workers. In designing such a provision it must be noted that the elimination of GSP treatment will remedy import injury only in those cases in which GSP duty-free trade has significantly contributed to the injury in the first place. General import injury (i.e., caused by non-GSP imports) cannot be remedied by terminating GSP treatment; general import-relief action is needed. The responsibility for administering such a safeguard could be assigned to the U.S. International Trade Commission (ITC) since the problem is similar to the import-relief provisions of the Trade Act of 1974. To facilitate a prompt remedy when warranted, a temporary termination of GSP treatment could be established on the basis of preliminary findings, as under the countervailing duty provisions of the Trade Agreement Act of 1979.

5. The annual administrative review to add products, delete products, announce the competitive need product-country list, implement discretionary graduation (and nonredesignation of competitive need items), etc., are more trouble than they are worth. Instead simply announce the cases of graduation based on objective criteria and any GSP safeguard actions recommended by the U.S. ITC (which would occur as conditions warrant). Arbitrary modifications in the program should not be made on an annual basis. Periodic reviews of the operation of the U.S. GSP could be made, say, every five years. If warranted, discretionary changes could be made at that time.

Some of these suggestions go beyond the scope of the paper under discussion, especially those involving political considerations. Nevertheless, I believe these suggestions are not drastically different from what the authors would propose, though we might disagree somewhat on indi-

vidual points. More importantly, however, the results of this paper do provide policymakers with important pieces of information that are relevant to several issues that must be dealt with in establishing a new GSP. Thus, we must conclude that this paper does accomplish much of what the authors set out to do.

Notes

1. Baldwin and Murray (1977) estimated the GSP to stimulate trade by 25 percent using an ex ante technique and pre-GSP trade flows; Murray (1980) found an 18 percent impact during 1974–77 using an ex post method.

References

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