

# TRADE LIBERALIZATION AND BUREAU-PLURALISM IN JAPAN: TWO-LEVEL GAME ANALYSIS\*

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The purpose of this paper is to examine the effects that bureau-pluralism has on trade liberalization negotiations in Japan. Our main conclusions are as follows. First, the degree to which political pressures of a constituency affect negotiation results is dependent on the object of political pressures (an outward-looking ministry or an inward-looking one) and the degree of difference between ministerial preferences over trade liberalization. Second, the effectiveness of the bargaining power of inward-looking ministries is dependent on the degree of difference between ministerial preferences.

## 1. Introduction

Trade liberalization negotiations between two countries attract much interest, while multilateral trade negotiations in the WTO have difficulty. An amelioration of conflicts of interests between countries is now difficult in multilateral trade negotiations, since the WTO leaders meeting broke down in Cancun in September, 2003, and the prospects for future negotiations are not good. Because the prospect for future multilateral trade negotiations appears dim, trade liberalization between two countries such as a FTA attracts much interest in Japan. However, trade liberalization negotiations between two countries further clarify the problem of domestic politics (domestic conflict of interests) that was behind the conflicts of interests between countries in multilateral negotiations. Japan and Mexico reached a basic agreement on trade liberalization in March, 2004. However, the agreement was delayed by the protective resistance of Japan's agricultural sector (e. g., Ministry of Agriculture, Forestry and Fisheries, agricultural interest groups and party politicians).

The purpose of this paper is to examine the effects that bureau-pluralism in Japan has on trade liberalization negotiations. We take up trade liberalization negotiations in Japan and examine what kind of effects the bureau-pluralism characterizing Japanese domestic politics has on these negotiation results. Here, we analyze them using a two-level game analysis to understand the interdependence of international and domestic negotiations in such a problem.

The two-level game analysis was raised by Putnam (1988), and afterwards Evans et al. (1993) demonstrated that it could be applied to various fields of study in international political economy. For papers related to trade liberalization and domestic politics, there are Grossman and Helpman (1995) analyzing the relationship between industrial political donations and negotiation results, and Milner and Rosendorff (1997), Bailey et al. (1997), Mansfield et al. (2000, 2002), Dai (2002) studying the relation between any preferential differences of the government and Congress and the result of negotiations. Domestic negotiations occur between the government and each industry in the former, and they occur in the latter between the government and Congress.

These two-level game analyses may be suitable for American domestic politics, but are not always adequate to apply to Japanese domestic politics. In this paper, we explicitly understand the

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governmental bureaucracy as playing an important role in Japanese policymaking, where domestic negotiations take place within a particular bureaucracy or between ministries. Under bureau-pluralism, the demands and conflicts of various domestic constituencies are handled within the governmental bureaucracy. Differences in the preferences of domestic constituencies appear as a difference in preferences between the ministries (departments and sections), and the negotiations between the ministries have influence in the process of trade liberalization negotiations.

This paper examines the effects that political pressures on ministries by domestic constituencies and the difference in the bargaining powers between ministries have on the results of trade negotiations. Domestic constituencies such as consumers and firms (farmers) form interest groups and exert political pressures on ministries and party politicians in the process of trade liberalization negotiations. The effects of political pressures by domestic constituencies depend on the object (an outward-looking ministry or an inward-looking one) of the political pressures and the degree of difference between the ministerial preferences regarding trade liberalization. In addition, the amount of bargaining power the inward-looking actor has in negotiations depends on the degree of difference between ministerial preferences.

In this paper we will consider the relationships between trade liberalization negotiations, political pressures, and bargaining power, and clarify the following points. First, when ministerial preferences are similar enough and the opposing (promoting) group of trade liberalization exerts political pressure on the outward-looking ministry (METI: the Ministry of Economy, Trade and Industry), it increases (decreases) trade barriers at home and abroad. However, when political pressure is exerted on the inward-looking ministry (MAFF: the Ministry of Agriculture, Forestry and Fisheries), it increases (decreases) trade barriers at home, but the effect on foreign trade barriers is dependent on the bargaining power of the inward-looking ministry.

Second, in the case that ministerial preferences are moderately different, the result of trade liberalization negotiations is determined by the preferences of a chief negotiator at home, and the preferences of the chief negotiator come under the influence of ministerial preferences and the difference in bargaining power between the ministries. The political pressures that the opposing (promoting) group of trade liberalization exerts on inward-looking and outward-looking ministries and the increased bargaining power of the inward-looking ministries increase (decrease) trade barriers at home, but they do not change them abroad.

Third, in the case that ministerial preferences become different enough, the result of trade liberalization negotiations is determined by the preferences of the inward-looking ministry (MAFF), and the political pressures on the outward-looking ministry (METI) do not influence the negotiation result. The political pressures that the opposing (promoting) group exerts on the inward-looking ministries (MAFF) increase (decrease) trade barriers at home, but they do not change them abroad.

This paper is organized as follows. In Section 2, we set up a model for trade liberalization negotiations and domestic politics characterized by bureau-pluralism and in Section 3, examine the effects that the political pressures of domestic constituencies have on trade liberalization negotiations. In Section 4, we take up the APEC trade liberalization negotiations and analyze the preferences and bargaining power of Japanese ministries and some of the results of trade liberalization negotiations. In Section 5 we summarize the conclusions of this paper.

## 2. Trade Liberalization Negotiation and Bureau-pluralism

We will set up a simple model to examine the effects that domestic politics characterized by bureau-pluralism have on trade liberalization negotiations. First, we explain the framework of trade liberalization negotiations and then examine an economic model for trade liberalization negotiations and the objective functions of the trade negotiators.

### 2.1 Framework of Trade Liberalization Negotiation

**Players:** It is assumed that trade liberalization is negotiated between two countries, one “home” and the other “foreign.” We have four main players in the trade negotiations: a governmental chief negotiator ( $G$ ) at home, the outward-looking ministry ( $O$ ) at home, the inward-looking ministry ( $I$ ) at home, and a foreign government ( $F$ ). As for the chief negotiator ( $G$ ), who is the prime minister, he must negotiate an agreement’s contents with the ministries ( $O$  and  $I$ ) at home while he negotiates the trade liberalization with the foreign government.

The government bureaucracy has played important roles in drafting and enforcing processes of trade policy in Japan.<sup>1)</sup> The bureaucrats have drafted bills of many trade policies and have used influences on the economic agents through subsidies, fiscal investments and loans, taxation systems, authorization rights, and administrative advice (*gyousei-sidou*<sup>2)</sup>) at the enforcement stage. Each ministry has a jurisdictional domain and has veto power to prevent interference from other ministries. In the case of a policy problem that extends to plural jurisdictional domains, there may be a conflict of interest between ministries. There is a system of political economy in which demands and conflicts of various domestic constituencies are handled within the governmental bureaucracy. In this paper, we refer to the political economic system as bureau-pluralism.<sup>3)</sup>

Domestic consumers and firms (farmers) do not directly participate in trade negotiations, while they form interest groups, cooperate with the party politicians, exert political pressures<sup>4)</sup> on the chief negotiator and the ministries, and hence have influence on trade negotiations. The party politicians serve to mediate between interest groups and bureaucrats (Muramatsu and Krauss 1987, 540). The party politicians speak for benefits of the interest groups which are their power bases for reelection, decide the policies of the political party they belong to, and use influence on the related ministries. In an area over which a specific ministry has jurisdiction, cooperative relations to protect vested interests are formed among the bureaucrats, the interest groups and the party politicians (so called iron triangle or sub-government, Campbell 1984, 301). In a policy

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1) Johnson (1982) and Wolfereen (1989) attach great importance to the role of governmental bureaucracy in policymaking and enforcement of Japanese industrial policies. Johnson (1982) describes Japan as a developmental state, and Wolfereen (1989) defines Japan as bureau-authoritarianism. They point out the importance of the governmental bureaucracy, but do not consider enough the links between the governmental bureaucracy and the party politicians, and do not sufficiently examine the conflicts among ministries. A development of the argument in such a direction leads to the idea of bureau-pluralism.

2) *Gyousei-sidou* is an act such as guidance or advice that an administration carries out with voluntary cooperation of a partner for an accomplishment of administrative purpose. It does not have legal compelling force, but has practical compelling force through the use of subsidies, fiscal investments and loans, taxation systems and authorization rights together (Ohyama 1996, 62-63).

3) The term bureau-pluralism is used in a similar meaning by Aoki (1988), while he does not address the specific case of trade liberalization.

4) See, for example, Muramatsu and Krauss (1987, 533) which explains that Japanese interest groups exert pressures on party (LDP) politicians and bureaucrats and assert their influence.

area in which plural ministries are interested, such as the trade liberalization of industrial, agricultural, forestry, fishery products and services, conflicts of interests may occur between the ministries. Because most issues are broader than the jurisdiction of a single ministry, it is important to understand relationships between the sub-governments. Cleavages between the ministries may dominate policy conflicts within the bureaucracy (sub-governmental conflict, Campbell 1984, 308). If they veto mutually, it becomes difficult to achieve consensus.<sup>5)</sup>

Within pluralism theory, there is an argument that attaches great importance to the increasing influence of party politicians in the policymaking process rather than emphasizing diversity and the conflict of interests within the governmental bureaucracy.<sup>6)</sup> Under the Liberal Democratic Party (LDP) long-term government, the bureaucrats drafted many bills, but they had to explain the government bills at the Party's Policy Research Council of the LDP before submission to the Diet and had to get the support of the LDP (Kato 1997, 46). In addition, under the LDP long-term government the policy formation abilities of LDP politicians (*zoku*<sup>7)</sup>) were improved and, as a result, brought their political intervention to the policymaking process.<sup>8)</sup> Such recognition leads to a switch of the conception of the policymaking process from a bureaucrat-led model (Pempel, 1974; Johnson, 1982; Zysman, 1983; Okimoto, 1989) to a politician-bureaucrat competitive model (Muramatsu and Krauss, 1987) and a politician-led model (Ramseyer and Rosenbluth, 1993).

The chief negotiator and the ministries will negotiate reductions of trade barriers at home and abroad with the foreign government to maximize national and bureaucratic interests. Each player is going to get political support from various domestic constituencies such as consumers and firms (farmers). For each player there is a problem that the interests of domestic constituencies often contradict. Each player negotiates trade liberalization while satisfying the demands of domestic constituencies to maximize the national and bureaucratic interests.

**Timing of the Game:** This game of trade liberalization negotiations consists of two stages. The first stage involves a game for main players to reduce the trade barriers, and the second one involves a game for economic agents to maximize the benefits in each country. After the agreements for trade liberalization are decided in the first stage game, the second stage game begins, and the consumers and firms in each country optimize their actions.

In the first stage the trade liberalization negotiations have two levels, one involves an international negotiation (between the governments) and the other involves a domestic negotiation (between the chief negotiator and the ministries). These trade liberalization negotiations are assumed to be take-it-or-leave-it negotiations (Mansfield et al., 2000), where the chief negotiator (*G*) at home has a right of proposal and the foreign government and the inward-looking min-

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5) A conflict between ministries is called a problem of " *tatewari-gyousei* (slivered administration system) " in Japan, and the ability to coordinate conflicts between the ministries is limited in bureaucratic organizations. The conflicts give the party politicians room for intervention and lead to an important role for party politicians in the policymaking process (Muramatsu and Krauss 1987, 549).

6) Japanese pluralism theories include bureaucratic comprehensive pluralism (Inoguchi, 1983), patterned pluralism (Muramatsu and Krauss, 1987) and LDP-bureaucrat mixed pluralism (Sato and Matsuzaki, 1986).

7) *Zoku* is a member of the Diet using strong influence routinely in the area of ministerial policies (Sato and Matsuzaki 1986, 265). While in some cases a *zoku* supports the ministerial interests, in other cases he or she sacrifices them (Inoguchi and Iwai 1987, 257-273). Each ministry needs a political supporter to protect ministerial interests, while a politician needs the bureaucratic policy formation and enforcement ability to magnify his/her power base.

8) While in some cases the LDP long-term government promotes bureaucratic influence, in other cases it restrains it. Under the long-term government, bureaucrat is easily able to predict policy postures of the government party and can easily apply its own influence. However, on the other hand, the government party gets policy drafting ability, and bureaucratic influences may deteriorate (Kato 1997, 85).

istry ( $I$ ) have a right of veto. The chief negotiator ( $G$ ) makes a certain proposal about the trade liberalization negotiations to the foreign government. If the foreign government receives it, the proposal is sent to the inward-looking ministry ( $I$ ) to get ratification. If the inward-looking one ( $I$ ) ratifies the proposal, the trade liberalization between the governments is approved. It is assumed that if the inward-looking ministry ( $I$ ) and the foreign government ( $F$ ) can get payoffs that are higher than the status quo, they will not refuse the proposal. If the inward-looking one ( $I$ ) or the foreign government ( $F$ ) refuses the proposal, the trade negotiations break down.

**Information Structure:** The preferences of each player and the rules of the game are common knowledge. Each player knows that if they reduce the trade barriers mutually and achieve trade liberalization, they can raise domestic political support. In addition, each player knows that they can get at least the same political support through trade negotiations as that provided when negotiations broke down. Each country, however, will set the trade barrier independently if the trade liberalization negotiations break down

## 2.2 Economic Model of Trade Negotiation

It is assumed that the equilibrium of trade liberalization negotiations is a sub-game perfect equilibrium. First we clarify the economic equilibrium in the second stage and then find the equilibrium of trade liberalization negotiations in the first stage.

We will set up an economic model in consideration of the existence of foreign direct investments as understood by standard international trade theory.<sup>9)</sup> It is assumed that there are two countries and each market is divided. The domestic consumer's utility function is  $u = aX - (1/2)bX^2 + v$ .  $X$  denotes the quantity of goods consumed domestically which the firms at home and abroad produce imperfect-competitively.  $v$  represents competitively produced *numeraire* goods in the two countries and its price is standardized to 1 on the domestic and world markets. A similar foreign utility function is assumed. By utility maximization conditions, the inverted demand functions of the goods  $X$  and  $X^*$  in the two countries are  $p = a - bX$ ,  $p^* = a^* - b^*X^*$ .  $p(p^*)$  is the domestic (foreign) price of the good  $X(X^*)$  and  $a(a^*)$  and  $b(b^*)$  are parameters. Then consumer surpluses in the two countries are  $CS = (1/2)bX^2$  and  $CS^* = (1/2)b^*X^{*2}$ .

There are  $n$  firms (domestic firms) producing  $X$  goods at home and  $m + 1$  firms in the foreign country. Among the  $m + 1$  firms abroad,  $m$  firms are overseas firms established by domestic firms through foreign direct investment, and the remaining one is a foreign firm. Those firms supply the produced goods to the two markets. Then total supply quantities ( $X, X^*$ ) in the two markets are  $X = ny_i + mx_j + z$  and  $X^* = ny_i^* + mx_j^* + z^*$ .  $y_i(y_i^*)$  denotes the domestic (foreign) market supply of the domestic firm,  $x_j(x_j^*)$  the domestic (foreign) market supply of the overseas firm, and  $z(z^*)$  the domestic (foreign) market supply of the foreign firm.

Profits of the domestic firm  $\pi_i$  are made up of total revenue at home and abroad less the production costs and the tariff paid on exports. There are no transportation costs to overseas markets. Profits  $\pi_j$  and  $\pi_z^*$  of the overseas and foreign firms are expressed in the same way. Thus  $\pi_i = y_i(p - c_y) + y_i^*(p^* - c_y - t^*)$ ,  $\pi_j = x_j(p - c_x - t) + x_j^*(p^* - c_x)$  and  $\pi_z^* = z(p - c_z - t) + z^*(p^* - c_z)$ . Here,  $c_y, c_x$  and  $c_z$  express the marginal costs (given) of the domestic, the overseas, and the foreign firms, and it is assumed that  $c_x = c_z$ .  $t$  and  $t^*$  denote the domestic and foreign trade barriers.

Each profit-maximizing firm produces Cournot-competitively given the trade barriers ( $t, t^*$ ) in

9) See, for example, Hillman and Ursprung (1988, 1993), Hillman and Moser (1996) and Rosendorff (1996).

each country. Then the supply quantities  $(y_i, x_j, z)$  of each firm in equilibrium for the domestic market are expressed by (1) and (2). Here  $\alpha = n + m + 2$  and  $\alpha - 1$  is total firms in both markets in this industry.

$$y_i = [(a - c_y) + (m + 1)(c_x - c_y + t)]/\alpha b, \quad i = 1, \dots, n, \quad (1)$$

$$x_j = z = [(a - c_x - t) - n(c_x - c_y + t)]/\alpha b, \quad j = 1, \dots, m. \quad (2)$$

Increasing imports in an industry which is domestically protected may cause losses for domestic producers. It is assumed that subsidies are provided to the domestic firms (farmers) for increasing imports. The subsidies  $SP$  are expressed by (3).  $\tau$  denotes the subsidy per unit of imports (given).

$$SP = \tau(m + 1)x_j; \tau \geq 0. \quad (3)$$

The lower limit of the tariff rate is 0%, namely free trade. The upper limit is a prohibitive import tariff rate  $t_{ex} = [a - (n + 1)c_x + nc_y]/(n + 1)$  that removes overseas supplies from the domestic market. The tariff rate  $t_{ex}$  becomes so low that the number of the domestic firms  $n$  increases and the domestic market becomes more competitive.

Each firm's supply  $(y_i^*, x_j^*, z^*)$  and the prohibitive import tariff rate  $t_{ex}^* = [a^* + (m + 1)c_x - (m + 2)c_y]/(m + 2)$  in the foreign market are expressed in the same way.

$$y_i^* = [(a^* - c_y - t^*) + (m + 1)(c_x - c_y - t^*)]/\alpha b^*, \quad i = 1, \dots, n, \quad (4)$$

$$x_j^* = z^* = [(a^* - c_x) - n(c_x - c_y - t^*)]/\alpha b^*, \quad j = 1, \dots, m. \quad (5)$$

The profits  $\pi_i, \pi_j, \pi_z^*$  of the domestic, the overseas, and the foreign firms are expressed by (6) and (7).

$$\begin{aligned} \pi_i = & (p - c_y)[(a - c_y) + (m + 1)(c_x - c_y + t)](1/\alpha b) \\ & + (p^* - c_y - t^*)[(a^* - c_y - t^*) + (m + 1)(c_x - c_y - t^*)](1/\alpha b^*), \quad i = 1, \dots, n, \end{aligned} \quad (6)$$

$$\begin{aligned} \pi_j = \pi_z^* = & (p - c_x - t)[(a - c_x - t) - n(c_x - c_y + t)](1/\alpha b) \\ & + (p^* - c_x)[(a^* - c_x) - n(c_x - c_y - t^*)](1/\alpha b^*), \quad j = 1, \dots, m. \end{aligned} \quad (7)$$

The effects of increased trade barriers  $(t, t^*)$  on the domestic firm's profit  $\pi_i$  are shown by (8)-(9). Then the domestic firms have incentives to increase the domestic tariff rate  $t$  and to decrease the foreign tariff rate  $t^*$ .

$$\partial \pi_i / \partial t = [y_i + ((p - c_y)/b)][(m + 1)/\alpha] > 0, \quad i = 1, \dots, n, \quad (8)$$

$$\partial \pi_i / \partial t^* = -[y_i^* + ((p^* - c_y - t^*)/b^*)][(m + 2)/\alpha] < 0, \quad i = 1, \dots, n. \quad (9)$$

The effects of increased trade barriers  $(t, t^*)$  on the overseas firm's profit  $\pi_j$  are shown by (10)-(11). Then the overseas firms have incentives to decrease the domestic tariff rate  $t$  and to increase the foreign tariff rate  $t^*$ .

$$\partial \pi_j / \partial t = -[x_j + ((p - c_x - t)/b)][(n + 1)/\alpha] < 0, \quad j = 1, \dots, m, \quad (10)$$

$$\partial \pi_j / \partial t^* = [x_j^* + ((p^* - c_x) / b^*)][n / \alpha] > 0, \quad j = 1, \dots, m. \quad (11)$$

The effects of increased trade barriers ( $t, t^*$ ) on the foreign firm's profit  $\pi_z$  are shown by (12)-(13). Then the foreign firm has incentives to decrease the domestic tariff rate  $t$  and to increase the foreign tariff rate  $t^*$ , too.

$$\partial \pi_z^* / \partial t = -[z + ((p - c_z - t) / b)][(n + 1) / \alpha] < 0, \quad (12)$$

$$\partial \pi_z^* / \partial t^* = [z^* + ((p^* - c_z) / b^*)][n / \alpha] > 0. \quad (13)$$

The domestic (foreign) consumer surplus  $CS(CS^*)$  is a decreasing function of the domestic (foreign) trade barrier  $t(t^*)$  and the other country's trade barrier does not have any effect on its own consumer surplus. Then the consumers have incentives to decrease the home country's tariff rate.

$$\partial CS / \partial t = -[ny_i + (m + 1)x_j][(m + 1) / \alpha] < 0, \quad (14)$$

$$\partial CS^* / \partial t^* = -[ny_i^* + (m + 1)x_j^*][n / \alpha] < 0. \quad (15)$$

### 2.3 Objective Functions of Trade Negotiators

**Political Support Functions:** In these trade liberalization negotiations the chief negotiator ( $G$ ), the outward-looking ministry ( $O$ ), the inward-looking ministry ( $I$ ) and the foreign government ( $F$ ) participate. It is assumed that the political support function of each player is made up of national and bureaucratic interests as follows.<sup>10)</sup>

$$U_k(t, t^*) = s_{ck}CS + s_k(n\pi_i + SP) + s_{mk}m\pi_j + t(m + 1)x_j; s_{ck}, s_k, s_{mk} \quad 0, \quad (16)$$

$k = O, I,$

$$U_G(t, t^*) = \gamma U_I(t, t^*) + (1 - \gamma)U_O(t, t^*), \quad (17)$$

$$U_F(t, t^*) = s_{cF}CS^* + s_{fF}\pi_z^* + s_{mF}m\pi_j + t^*ny_i^*; s_{cF}, s_{fF}, s_{mF} \quad 0. \quad (18)$$

The political support function  $U_k$  ( $k = G, O, I, F$ ) of each player is made up of the consumer surplus ( $CS, CS^*$ ), firm profits ( $n\pi_i + SP, m\pi_j, \pi_z^*$ ) and tariff revenue ( $t(m + 1)x_j, t^*ny_i^*$ ). Trade liberalization increases the consumer surplus and firm profits, and shores up political support for the chief negotiator and the ministries. The tariff revenue (the import subsidy) is collected by the government and is distributed among consumers (firms) in a lump sum.  $s_{ck}(s_{cF}), s_k(s_{fF})$  and  $s_{mk}(s_{mF})$  denote the weight of the domestic (foreign) consumer surplus, the domestic (foreign) firm's profits, and the overseas firm's profits in the political support functions. These are indexes that express the political pressures from interest groups such as consumers, firms (farmers), and party politicians.  $\gamma$  expresses the bargaining power of the inward-looking ministry.

Domestic firms (farmers) have incentives for import restriction and hence form a group opposing trade liberalization. On the other hand consumers and overseas firms established by foreign

10) See Baldwin (1987) for a political support function and Aoki (1988) for an objective function of the Japanese bureaucracy. Grossman and Helpman (1995) analyze using a government utility function that explicitly includes a political contribution.

direct investment have motives for import promotion and thus form a promoting group. These domestic constituencies are going to form interest groups and exert political pressures on the ministries and their departments. Party politicians use their influence on the ministries in favor of the interest groups of their power base. To protect their vested interests a sub-government has been formed between the ministry, the interest groups and the party politicians. In turn the foreign consumers (the foreign and oversea firms) exert political pressure on the foreign government to promote (control) imports. Here, we do not consider the economic cost of political pressure.

**Optimal Trade Barrier:** We will examine the trade barriers maximizing the political support for each player. The chief negotiator ( $G$ ), the ministries ( $O$  and  $I$ ) and the foreign government ( $F$ ) choose the optimal trade barriers  $t_k, t_k^* (k = G, O, I, F)$  maximizing their objective functions.

$$(t_k, t_k^*) = \arg \max U_k(t, t^*), \quad k = G, O, I, F. \quad (19)$$

The optimal domestic trade barriers  $t_k (k = G, O, I)$  for the chief negotiator and the ministries are determined as follows. We obtain the optimal foreign trade barrier  $t_F^*$  for the foreign government in the same way.

$$\begin{aligned} t_k = & \{(s_k - s_{ck})(nb/(n+1))y_i + [1 - (s_{mk}m(n+1)/(m+1)\alpha) \\ & - (s_{ck}(m+1)/\alpha)](\alpha b/(n+1))x_j + s_k[(n(p - c_y)/(n+1)) - \tau] \\ & - s_{mk}[m(p - c_x)/(m+1)]\}\beta, \quad k = O, I, \end{aligned} \quad (20)$$

$$t_G = \gamma t_I + (1 - \gamma)t_O, \quad (21)$$

$$\begin{aligned} t_F^* = & (1 - s_{cF}(n/\alpha))(\alpha b^*/(m+2))y_i^* + [s_F + s_{mF}m - s_{cF}(m+1)] \\ & (b^*/(m+2))x_j^* + [(s_F + s_{mF}m)(p^* - c_x)/(m+2)]. \end{aligned} \quad (22)$$

where  $\beta = (m+1)/(m+1 - s_{mk}) > 0$ . Sufficient conditions for the optimal domestic trade barrier  $t_k (k = G, O, I)$  to be positive are as follows: 1)  $s_k - s_{ck} > 0$ , 2)  $1 - (s_{mk}m(n+1)/(m+1)\alpha) - (s_{ck}(m+1)/\alpha) > 0$ , and 3) sufficiently small  $s_{mk}$  and  $\tau$ . These conditions can be satisfied if  $s_{ck}, s_{mk}$  and  $\tau$  are sufficiently small. The political pressure  $s_{ck}$  of the consumers will be small for a problem of collective action, and the political pressure  $s_{mk}$  of the oversea firms will also not be so large at a stage without significant foreign direct investments. Sufficient conditions for the optimal foreign trade barrier  $t_F^*$  to be positive are as follows: 1)  $s_F + s_{mF}m - s_{cF}(m+1) > 0$ , and 2)  $1 - s_{cF}(n/\alpha) > 0$ . These conditions could be satisfied if the political pressure  $s_{cF}$  of the foreign consumers is sufficiently small.

The level of optimal trade barriers  $t_k (k = G, O, I, F)$  for the chief negotiator, the ministries, and the foreign government depend on the weight  $s_{ck}, s_k, s_{mk} (k = O, I, F)$  of the consumer surplus and firm profits in the political support functions. If they make up a large part of the domestic firm's profits (opposing group), their optimal trade barriers become high. On the other hand, if they make much up a large part of the consumer surplus and the oversea firm's profits (promoting group), their optimal trade barriers become low. In general the inward-looking ministry is interested in domestic firms (farmers) more than in consumers and oversea firms ( $s_I > s_O, s_{cI} < s_{cO}, s_{mI} < s_{mO}$ ), and hence is protective. Its optimal trade barrier is higher than

the outward-looking ministry ( $t_I > t_O$ ).<sup>11)</sup>

The chief negotiator and the ministries have certain preferences  $t_k^*$  ( $k = G, O, I$ ) over foreign trade barriers. In this model foreign trade barriers do not influence the domestic consumer surplus, but have an influence on the profits of domestic and oversea firms. A rise in foreign trade barriers decreases the profits of domestic firms and increases the profits of oversea firms. It will be assumed that both the chief negotiator and the ministries have the same optimal level for foreign trade barriers ( $t_G^* = t_O^* = t_I^*$ ).

**Objective Function:** Each player's political support function is expressed by a simple loss function (Milner and Rosendorff, 1997; Mansfield et al., 2000). Each player attempts to maximize his utility and he can do this by minimizing the difference between his ideal levels of domestic and foreign trade barriers and the actual levels. The objective functions  $U_k$  ( $k = G, O, I, F$ ) of the chief negotiator, the ministries and the foreign government are expressed as follows.

$$U_k(t, t^*) = -(t - t_k)^2 - (t^* - t_k^*)^2, \quad k = G, O, I, F. \quad (23)$$

Both the chief negotiator and the ministries are assumed to want the complete elimination of foreign trade barriers, then  $t_G^* = t_O^* = t_I^* = 0$ . The foreign government wants domestic trade barriers completely eliminated, too,  $t_F = 0$ . By these assumptions of the objective functions, the indifference curves of each player's political support are concentric circles.<sup>12)</sup> The chief negotiator, the ministries and the foreign government can maximize their political supports by a combination  $(t_G, 0)$ ,  $(t_O, 0)$ ,  $(t_I, 0)$ ,  $(0, t_F^*)$  of optimal trade barriers. Their political support decreases as actual levels move in any direction from their optimal level of trade barriers at home and abroad.

### 3. Equilibrium of Trade Liberalization Negotiations and Political Pressure

We will examine the effects that domestic politics have on the equilibrium of trade liberalization negotiations. First we clarify the equilibrium of trade liberalization negotiations and then we examine the effects that the political pressures have on the equilibrium.

#### 3.1 Equilibrium of Trade Liberalization Negotiations

The home and foreign countries are assumed to negotiate the contents of trade liberalization considering the Nash equilibrium as the status quo. The inward-looking ministry has veto power over the domestic trade barrier. In other words it is necessary for the inward-looking ministry to ratify the contents agreed to by both governments, and if the ministry refuses them, the trade liberalization agreement is not concluded. The Nash equilibrium is determined by a point of intersection of the reaction functions of the inward-looking ministry and the foreign government and hence becomes  $N(t_I, t_F^*)$ .

The equilibrium trade barrier  $(t_q, t_q^*)$  of the trade liberalization negotiations is expressed by (24). The chief negotiator offers  $(t_q, t_q^*)$ , and the inward-looking ministry and the foreign government receive it. As for this equilibrium, it is determined by variables such as the preferences  $(t_O, t_I, t_F^*)$  of the players, the bargaining power ( $\gamma$ ) of the inward-looking ministry and the dif-

11) See Lohmann and O'Halloran (1994) for preferences of the government and Congress in the United States.

12) See Bailey et al. (1997) for different weight in the objective function.

ference  $(t_I - (1 - \gamma)t_O)$  between the ministerial preferences.

$$(t_q, t_q^*) = \begin{cases} (t_a, t_a^*) & \text{if } t_I - (1 - \gamma)t_O < t_Z - (1 - \gamma)t_O \\ (t_G, 0) & \text{if } t_Z - (1 - \gamma)t_O < t_I - (1 - \gamma)t_O < \gamma t_I + t_F^* \\ (t_d, 0) & \text{if } \gamma t_I + t_F^* < t_I - (1 - \gamma)t_O \end{cases} \quad (24)$$

where  $t_d = t_I - t_F^*$  and  $t_Z$  is defined by  $U_F(t_O, 0) = U_F(t_Z, t_F^*)$ . In turn  $(t_a, t_a^*)$  is defined as follows.

$$(t_a, t_a^*) = \arg \max U_G(t, t^*), \quad s.t. \begin{cases} U_I(t, t^*) \geq U_I(t_I, t_F^*) \\ U_F(t, t^*) \geq U_F(t_I, t_F^*) \\ t^* = -(t_F^*/t_G)t + t_F^* \end{cases} \quad (25)$$

Solving this, we have  $(t_a, t_a^*)$  as follows.

$$t_a = t_I [1 + (t_F^*/t_G)^2]^{-1/2}, \quad (26)$$

$$t_a^* = t_F^* - t_I (t_F^*/t_G) [1 + (t_F^*/t_G)^2]^{-1/2}. \quad (27)$$

$(t_a, t_a^*)$  is on the contract curve. It is the combination of the domestic and foreign trade barriers that gives the foreign government the same political support ( $U_F(t_a, t_a^*) = U_F(t_I, t_F^*)$ ) as the Nash equilibrium (status quo).

As expressed by (24), the results of the trade liberalization negotiations are classified into three cases depending on the difference  $(t_I - (1 - \gamma)t_O)$  between the ministerial preferences. CASE I ( $t_I - (1 - \gamma)t_O < t_Z - (1 - \gamma)t_O$ ): when the ministerial preferences are sufficiently similar, the home and foreign governments agree to the trade barriers  $(t_a, t_a^*)$  on the contract curve. The domestic trade barrier  $t_a$  is lower than the optimal level  $t_G$  of the chief negotiator and the foreign trade barrier  $t_a^*$  is lower than the optimal level  $t_F^*$  of the foreign government. CASE II ( $t_Z - (1 - \gamma)t_O < t_I - (1 - \gamma)t_O < \gamma t_I + t_F^*$ ): when the ministerial preferences become moderately different, the result of the trade negotiations becomes the optimal point  $(t_G, 0)$  of the chief negotiator. The domestic trade barrier is equal to the optimal level  $t_G$  and the foreign trade barrier is completely eliminated. CASE III ( $\gamma t_I + t_F^* < t_I - (1 - \gamma)t_O$ ): when the ministerial preferences become sufficiently different, the result of the trade negotiations becomes  $(t_d, 0)$ . The domestic trade barrier  $t_d$  is higher than the optimal level  $t_G$  and the foreign trade barrier is completely eliminated.

### 3.2 Policy Effects of Political Pressure

The effects of the increased political pressures  $s_k, s_{mk}, s_{ck}$  ( $k = O, I$ ) of domestic and overseas firms and domestic consumers and the increased per unit subsidy  $\tau$  on the optimal trade barriers  $t_k$  of the chief negotiator and the ministries are as follows.

$$\partial t_k / \partial s_k = [y_i + ((p - c_y)/b) - (\tau(n + 1)/nb)](nb/(n + 1))\beta > 0, \quad (28)$$

$$\partial t_k / \partial s_{mk} = -[x_j + ((p - c_x)/b)][1 - (s_{mk}/(m + 1 - s_{mk}))](mb/(m + 1))\beta < 0, \quad (29)$$

$$\partial t_k / \partial s_{ck} = -[ny_i + (m + 1)x_j](b/(n + 1))\beta < 0, \quad (30)$$

$$\partial t_k / \partial \tau = -s_k \beta < 0. \quad (31)$$

The political pressure  $s_k$  ( $k = O, I$ ) of the group (domestic firms) opposing trade liberalization raises the optimal trade barriers  $t_k$  ( $k = G, O, I$ ) of the chief negotiator and the ministries, while the increased subsidy  $\tau$  and the increased political pressures  $s_{mk}, s_{ck}$  ( $k = O, I$ ) from the promoting group (oversea firms and consumers) decrease them.

The effects of the increased political pressures  $s_F, s_{cF}, s_{mF}$  of foreign firms and consumers and oversea firms on the optimal trade barrier  $t_F^*$  of the foreign government are as follows.

$$\partial t_F^* / \partial s_F = [z^* + ((p^* - c_x)/b^*)](b^*/(m+2)) > 0, \quad (32)$$

$$\partial t_F^* / \partial s_{mF} = [x_j^* + ((p^* - c_x)/b^*)](mb^*/(m+2)) > 0, \quad (33)$$

$$\partial t_F^* / \partial s_{cF} = -[ny_i^* + (m+1)x_j^*](b^*/(m+2)) < 0. \quad (34)$$

The political pressures  $s_F$  and  $s_{mF}$  of the foreign and oversea firms increase the optimal trade barrier  $t_F^*$  of the foreign government, while increased political pressure  $s_{cF}$  from foreign consumers decreases it.

In CASE I ( $t_I - (1-\gamma)t_O < t_Z - (1-\gamma)t_O$ ), for the relations between the political pressures of the opposing (promoting) group and the negotiation results, we get the next proposition.

**Proposition 1.** In CASE I ( $t_I - (1-\gamma)t_O < t_Z - (1-\gamma)t_O$ ), the increased political pressure of the opposing (promoting) group on the outward-looking ministry increases (decreases) the domestic and foreign trade barriers. However, the increased political pressures on the inward-looking ministry increase (decrease) the domestic trade barrier, while the effects on the foreign trade barrier are dependent on the bargaining power  $\gamma$  of the inward-looking ministry.

*Proof:* the effects that the increased optimal tariff rate of the outward-looking ministry has on the equilibrium of the trade liberalization negotiations are as follows.

$$\partial t_a / \partial t_O = (1-\gamma)(t_F^*/t_G)^2(t_I/t_G)[1 + (t_F^*/t_G)^2]^{-(3/2)} > 0, \quad (35)$$

$$\partial t_a^* / \partial t_O = (1-\gamma)(t_F^*/t_G)(t_I/t_G)[1 + (t_F^*/t_G)^2]^{-(3/2)} > 0. \quad (36)$$

Using (28), we have  $\partial t_O / \partial s_O > 0$  (using (29) and (30),  $\partial t_O / \partial s_{mO} < 0$  and  $\partial t_O / \partial s_{cO} < 0$ ). When the political pressures of the opposing (promoting) group are exerted on the outward-looking ministry and hence the optimal level  $t_O$  is increased (decreased), the domestic (foreign) trade barrier  $t_a$  increases (decreases).

Next, the effects that the increased optimal tariff rate  $t_I$  of the inward-looking ministry has on the equilibrium of the trade liberalization negotiations are as follows.

$$\partial t_a / \partial t_I = [1 + (t_F^*/t_G)^2]^{-(1/2)} [1 + \gamma(t_F^*/t_G)^2(t_I/t_G)(1 + (t_F^*/t_G)^2)^{-1}] > 0, \quad (37)$$

$$\partial t_a^* / \partial t_I = (t_F^*/t_G)[1 + (t_F^*/t_G)^2]^{-(1/2)} [\gamma(t_I/t_G)(1 + (t_F^*/t_G)^2)^{-1} - 1]$$

$$\begin{cases} \geq 0 & \text{if } \gamma \geq \gamma^*, \\ < 0 & \text{if } \gamma < \gamma^*, \end{cases} \quad (38)$$

where  $\gamma^* = (t_G/t_I)(1 + (t_F^*/t_G)^2)$ . Using (28),  $\partial t_I/\partial s_I > 0$  (using (29) and (30),  $\partial t_I/\partial s_{mI} < 0$  and  $\partial t_I/\partial s_{cI} < 0$ ). Therefore, when the political pressure of the opposing (promoting) group is exerted on the inward-looking ministry and the optimal level  $t_I$  is increased (decreased), the domestic trade barrier  $t_a$  increases (decreases) while the foreign trade barrier  $t_a^*$  is dependent on the bargaining power  $\gamma$  of the inward-looking ministry. When the bargaining power  $\gamma$  is sufficiently large ( $\gamma > \gamma^*$ ), the foreign trade barrier  $t_a^*$  increases (decreases). However, when  $\gamma$  is sufficiently small ( $\gamma < \gamma^*$ ), it decreases (increases).  $\square$

We have the following propositions for CASE II and CASE III.

**Proposition2.** In CASE II ( $t_Z - (1 - \gamma)t_O < t_I - (1 - \gamma)t_O < \gamma t_I + t_F^*$ ), the result of trade liberalization negotiations is determined by the preference  $(t_G, 0)$  of the chief negotiator, and his preference comes under the influence of inward-looking and outward-looking ministerial preferences and the bargaining power between ministries. The political pressure that the opposing (promoting) group exerts on the inward-looking and outward-looking ministries increases (decreases) the domestic trade barrier, while they do not change the foreign trade barrier.

*Proof:* see FIGURE 2.

**Proposition3.** In CASE III ( $\gamma t_I + t_F^* < t_I - (1 - \gamma)t_O$ ), the result of the trade liberalization negotiations is determined by the preference  $(t_a, 0)$  of the inward-looking ministry. Political pressure on the outward-looking ministry does not affect the negotiations' results. The political pressure that the opposing (promoting) group exerts on the inward-looking ministry increases (decreases) the domestic trade barrier, while they do not change the foreign trade barrier.

*Proof:* see FIGURE 2.

TABLE 1 summarizes the relations between the political pressures and the results of the trade liberalization negotiations. +, - and 0 express the results of comparative statistics. In addition, the last line of TABLE 1 expresses the effects that the increased bargaining power ( $\gamma$ ) of the inward-looking ministry has on the negotiation results. These effects depend on the difference between ministerial preferences.

FIGURE 1 expresses the effects that the increased political pressures of the opposing group have on the results of the trade negotiations in CASE I ( $t_I - (1 - \gamma)t_O < t_Z - (1 - \gamma)t_O$ ) (see FIGURE 2 for CASE II and CASE III). The horizontal axis represents the level of the domestic trade barrier  $t$ , the vertical axis the level of the foreign trade barrier  $t^*$ . The points  $(t_G, 0)$ ,  $(t_O, 0)$ ,  $(t_I, 0)$ ,  $(0, t_F^*)$  represent the ideal level of the chief negotiator ( $G$ ), the outward-looking ministry ( $O$ ), the inward-looking ministry ( $I$ ), and the foreign government ( $F$ ). The point  $N(t_I, t_F^*)$  is the Nash equilibrium. The set that expresses higher political support than the indifference curve  $I_I$  is the domestic win set, the set that expresses higher political support than the indifference curve  $I_F$  is the foreign win set (Putnam, 1988). Trade liberalization can be negotiated on the contract curve ( $t^* = -(t_F^*/t_G)t + t_F^*$ ) between the two indifference curves. Point  $a$  expresses the initial equilibrium of the trade liberalization negotiations.

If the groups opposing trade liberalization increase political pressure and hence the ministry

TABLE 1. Political Pressure and Negotiation Results

		CASE I	CASE II	CASE III
Opposite Group	PP-OUT	$t_q = t_a$ + $t_q^* = t_a^*$ +	$t_q = t_G$ + $t_q^* = 0$ 0	$t_q = t_d$ 0 $t_q^* = 0$ 0
	PP-IN	$t_q = t_a$ + $t_q^* = t_a^*$ ±	$t_q = t_G$ + $t_q^* = 0$ 0	$t_q = t_d$ + $t_q^* = 0$ 0
Promoting Group	PP-OUT	$t_q = t_a$ - $t_q^* = t_a^*$ -	$t_q = t_G$ - $t_q^* = 0$ 0	$t_q = t_d$ 0 $t_q^* = 0$ 0
	PP-IN	$t_q = t_a$ - $t_q^* = t_a^*$ ±	$t_q = t_G$ - $t_q^* = 0$ 0	$t_q = t_d$ - $t_q^* = 0$ 0
BP-IN		$t_q = t_a$ + $t_q^* = t_a^*$ +	$t_q = t_G$ + $t_q^* = 0$ 0	$t_q = t_d$ 0 $t_q^* = 0$ 0

Notes) PP-OUT: Political Pressure on the Outward-looking Ministry  
 PP-IN: Political Pressure on the Inward-looking Ministry  
 BP-IN: Increased Bargaining Power of the Inward-looking Ministry  
 Opposing Group: Domestic Firms (Farmers)  
 Promoting Group: Consumers and Oversea Firms  
 +, - and 0 express the results of comparative statistics.

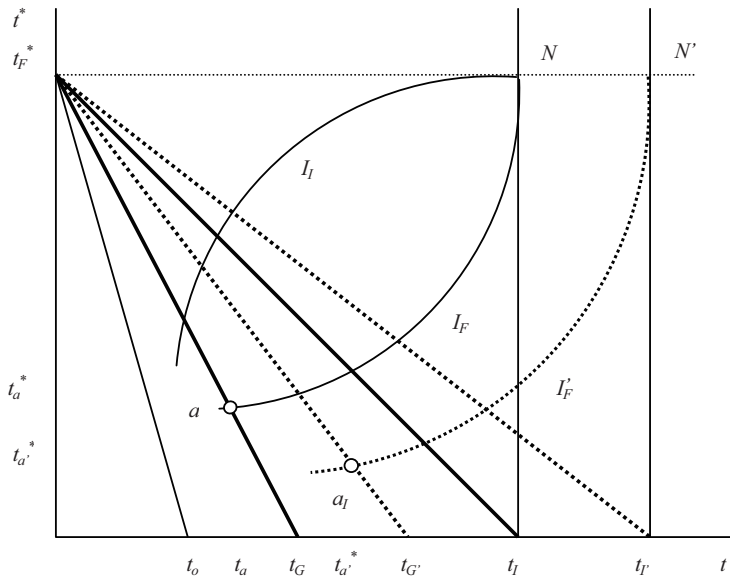


FIGURE 1. Policy Effects of Political Pressure on the Inward-looking Ministry  
 (CASE 1  $t_I - (1 - \gamma)t_o < t_Z - (1 - \gamma)t_o$ )

at home tends towards protectionism, the equilibrium of the trade negotiations moves from point  $a$  to point  $a_I$  in FIGURE 1. The protectionism of the inward-looking ministry and the outward-looking ministry together make the domestic trade barriers higher in comparison with point  $a$ , but the effects that they have on the foreign trade barrier are different. The protectionism of the outward-looking ministry lifts the foreign trade barrier, while the effects of the inward-looking ministry depend upon its bargaining power. Even if the outward-looking ministry increases its protectionism, the Nash equilibrium  $N$  does not change. However, the Nash equilibrium moves to the right ( $N \rightarrow N'$ ) if the inward-looking ministry increases its protectionism ( $t_I \rightarrow t_{I'}$ ). This widens the foreign win set. The protectionism of the inward-looking ministry not only raises the domestic trade barrier but also decreases the foreign trade barrier if the bargaining power  $\gamma$  is sufficiently small ( $\gamma < \gamma^*$ ) (see FIGURE 1).

#### 4. Preferences and Bargaining Power of Ministries and Negotiation Results: A Case Study of APEC Trade Liberalization Negotiation

What kind of effects will a change in the preferences of the inward-looking ministry (MAFF), by the political pressures of the domestic constituencies and a change in bargaining power between the ministries, have on trade liberalization negotiations? Given the preferences and bargaining power of the outward-looking ministry (METI), we will examine how changes in the preferences and bargaining power of the inward-looking ministry (MAFF) affect trade liberalization negotiations, and analyze the APEC trade liberalization negotiations as a case study.

In November, 1994, APEC aimed in the Bogor Declaration at realizing “ free and open trade and investment ” by 2020 for developing countries (by 2010 for developed countries). For the realization of this aim, from 1995 to 1998 Early Voluntary Sectoral Liberalization (EVSL) negotiations were conducted to achieve trade liberalization in 15 specific industrial, agricultural, forestry and fishing products more rapidly. However, the EVSL negotiations did not succeed owing to the veto of the inward-looking ministry in Japan.

##### 4.1 International and Domestic Negotiations in APEC Trade Liberalization

The EVSL in APEC were conducted at two levels; through international negotiations (between the governments) and domestically (formation of consensus among the ministries in Japan). We will arrange, in brief, the international negotiations in APEC and the difference among the ministerial preferences (Okamoto, 2004).

**International Negotiations in APEC:** The EVSL international negotiations in APEC are divided into two negotiations, one of which is a negotiation to select the sectors for trade liberalization (from November, 1995 to November, 1997), and the other which is a negotiation to decide the methods for enforcing trade liberalization (from November 1997 to November 1998).

First, there were negotiations among countries regarding the sectors targeted for trade liberalization. These negotiations began in November, 1995, when the APEC leaders meeting adopted “the Osaka Action Agenda” (APEC Leader’s Meeting, 1995), and these negotiations were continued until the leaders meeting to pinpoint the sectors in Vancouver in November, 1997, when the meeting announced a statement which related to EVSL (APEC Leader’s Meeting, 1997).

Through these negotiations the 15 sectors (Front 9 sectors, Back 6 sectors)<sup>13)</sup> that became the object of trade liberalization were pinpointed and were to be debated according to the three pillars (trade and investment liberalization, trade facilitation, and economic and technical cooperation) of APEC activity. Japan agreed that it included ‘fish and fish products,’ ‘forest products,’ ‘food sector,’ and ‘oilseeds and oilseed products’ in the negotiated sectors. Regarding the enforcement of trade liberalization, the ministerial meeting confirmed “the APEC principle of voluntarism”, while the leaders meeting following soon after indicated an expression that favored a package approach.<sup>14)</sup>

Second, regarding the enforcement of trade liberalization, the negotiations were conducted among APEC countries. These negotiations were started just after the leaders meeting in November, 1997, and were continued until the ministerial and the leaders meetings in Kuala Lumpur in November, 1998. In these ministerial and leaders meetings, decisions were made on sending the trade liberalization of the Front 9 to the WTO and virtual negotiations cancellation (APEC Leader’s Meeting, 1998; APEC Ministerial Meeting, 1998).

In the negotiations on enforcement of trade liberalization, a voluntarism method was opposed to a package approach (Okamoto 2004, 45-50). The package approach demands trade liberalization, trade facilitation and economic and technical cooperation in each participating country in all sectors. On the other hand, under the voluntarism method, each country can decide freely based on the APEC principle of voluntarism on which actions and sectors to participate in. The United States, Australia, Canada, New Zealand, Singapore, and Hong Kong sought to promote trade liberalization in APEC and supported the package approach, while Japan supported the voluntarism method. These opposing sides could not reach agreement, and in the end the negotiations broke down. The reason why Japan refused the package approach is because it was unable to accept tariff reductions for ‘fish and fish products,’ ‘forest products,’ ‘food sector,’ and ‘oilseeds and oilseed products.’ In particular Japan completely refused the liberalization of ‘fish and fish products.’

***Difference among Ministerial Preferences:*** The Japanese ministries which participated in APEC trade liberalization negotiations are the Ministry of International Trade and Industry (MITI), the Ministry of Foreign Affairs (MOFA), MAFF, and the Ministry of Finance (MOF) (Okamoto 2004, 84-88). The preference of the Japanese chief negotiator is affected by the preferences of these ministries. Each ministry has veto, and a consensus (sectors and levels of the trade liberalization) on trade policy is determined by a balance of bargaining power among the ministries.<sup>15)</sup>

The APEC relations are the joint jurisdiction of MITI (now, METI) and MOFA. MITI intended comprehensive trade liberalization and played an important role in EVSL negotiations. MOFA sought to promote basic trade liberalization, but had not the related jurisdictional industries. Therefore, it remained as part of formal adjustment in EVSL negotiations.<sup>16)</sup>

MAFF was protective and negative against EVSL from beginning to end. A basic viewpoint

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13) The 15 sectors consist of the Front 9 (toys, fish and fish products, environmental goods and services, chemicals, forest products, gems and jewelry, energy equipment and services, medical equipment and instruments, telecommunications MRA) and the Back 6 (food, oilseed and oilseed products, fertilizers, automotive, natural and synthetic rubber, civil aircraft)(Okamoto 2004, 42-43).

14) “We find this package to be mutually beneficial and to represent a balance of interests,” (APEC Leaders Meeting, 1997). According to Krauss (2004, 280), this phrase is a reason for the United States to assert the package deal.

15) See, for example, Funabashi (1995, 216-218) for the decision process of foreign economic policies in Japan.

16) MOFA has opposed to MITI over the APEC policies since APEC was established (Funabashi 1995, 211-215).

of MAFF was “no more concession beyond the Uruguay Round commitment.” The reason was that there would be demands for further liberalization in the next WTO round if it gave any concession in EVSL (Funabashi 1995, 216). MOF’s participation was based on its jurisdiction over customs and tariffs, and it did not act positively or negatively regarding trade liberalization.

The difference between ministerial preferences reflects the difference of jurisdictional sectors. MITI has jurisdiction over industries profiting from trade liberalization, while MAFF has jurisdiction over industries suffering losses from the trade liberalization (it profits at the status quo). Free trade (promoting) groups supported the EVSL negotiations, while the status quo groups objected to them. In particular the groups opposing EVSL exerted political pressures on the ministries having jurisdiction through positive lobbying and persuasion.

The main groups opposing EVSL are the agricultural, forestry and fish industries suffering losses by the opening of markets, and the interest groups and the politicians concerned with these industries (the so-called *norin-zoku*) (Okamoto 2004, 89-90). The Central Union of Agricultural Co-operatives of Japan (*JA Zenchu*) objected to the liberalization of the ‘food sector’ and ‘oilseeds and oilseed products,’ and the National Federation of Fisheries Co-operative Associations (*Zengyoren*) objected to the liberalization of ‘fish and fish products.’ In addition, the Japan Forestry Association and the Japan Plywood Manufacturers’ Association (JPMA) objected to the liberalization of ‘forest products.’ Among party politicians, anti-liberalization politicians are members of the Agricultural and Forestry Division, the Fisheries Division and the Special Committee on Agricultural Trade, all of which were subject to the Policy Research Council of the Liberal Democratic Party (LDP). The LDP was the only party that played any meaningful role in the APEC trade liberalization negotiations. *Norin-zoku* is one of the most influential *zoku*.

#### 4.2 Preferences of Ministries and Negotiation Results

In the EVSL negotiations process, the difference between the ministerial preferences and the bargaining power between the ministries changed and hence the preference of the Japanese chief negotiator (balance of bargaining power between the ministries) inclined to protectionism. When Japan agreed to the specification of the 15 sectors at the APEC ministerial meeting in November, 1997, “the APEC principle of voluntarism” was identified as the preferred method of enforcing trade liberalization. The Japanese chief negotiator conformed to this principle and promoted voluntarism as the enforcement method. At that time, the preference of the Japanese chief negotiator was strongly influenced by the preference of MITI. Afterwards, when it became clear in the trade ministerial meeting in Malaysia in June, 1998 that the package approach would be selected, the interest groups<sup>17)</sup> and *nourin-zoku*<sup>18)</sup> exerted political pressures on the government and the ministries, and as a result both MAFF and the Japanese chief negotiator became more protective.

When the preference of the inward-looking ministry (MAFF) becomes more protective, what kind of effects will the trade negotiations have? FIGURE 2 shows the effects on the negotiation results of a growing difference between the ministerial preferences owing to the more protective

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17) *Zengyoren* and the ALL Japan Seafood Import Consultative Group, which belongs to the Fisheries Policy Department of *Zengyoren*, appealed against EVSL liberalization of ‘fish and fish products’ to MAFF, MITI, MOFA, the *norin-zoku* and the Prime Minister in December 1997 and in May and June 1998 (Okamoto 2004, 95).

18) On October 28, 1998, LDP’s Special Committee on Agricultural Trade appealed against trade liberalization (Okamoto 2004, 97). Afterwards, on November 5, 1998, it confirmed the principle of EVSL trade liberalization to MOFA.



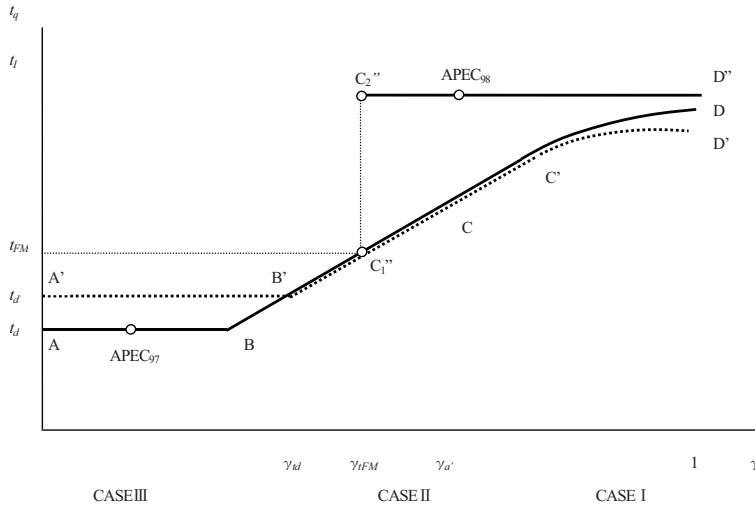


FIGURE 3. Bargaining Power of the Inward-looking Ministry and Negotiation Results

### 4.3 Bargaining Power of Ministries and Negotiation Results

When the inward-looking ministry (MAFF) develops its bargaining power between the ministries, what kind of effects will the negotiation results receive? When Japan agreed to the trade liberalization of specific sectors in the APEC ministerial meeting in November, 1997, the influence of MITI was strong. Afterwards the influence of MAFF was strengthened when it became clear that the package approach of trade liberalization would be selected.

Given the preference  $t_O$  of the outward-looking ministry (MITI) and sufficiently large difference between ministerial preferences, FIGURE 3 expresses the effects that the bargaining power of the inward-looking ministry (MAFF) has on the negotiation results. The horizontal axis expresses the bargaining power  $\gamma$  of the inward-looking ministry and the vertical axis expresses the trade barrier  $t_q$  at home that is decided as the negotiation results. APEC<sub>97</sub> may show the agreement point at the time when the specific sectors of EVSL were determined and APEC<sub>98</sub> the situation at the time of the breakdown of EVSL negotiations.  $(0, t_{FM})$  expresses a threshold point (an acceptability point) that is acceptable to the foreign government in the negotiations. This threshold point will become high with the voluntarism method while low with the package approach.  $\gamma_{td}$ ,  $\gamma_{t_{FM}}$  and  $\gamma_{a'}$  express the bargaining power of the inward-looking ministry corresponding to the trade barrier  $t_d$ ,  $t_{FM}$  and  $a'$  at home in FIGURE 2.  $\gamma = 1$  expresses a situation where the inward-looking ministry refuses the negotiations between the ministries and hence exercises its veto.

When the difference between the ministerial preferences is sufficiently large, we have the following relations between the bargaining power  $\gamma$  of the inward-looking ministry (MAFF) and the trade barrier  $t_q$ . First, as the bargaining power  $\gamma$  becomes strong, the trade barrier  $t_q$  at home rises. The trade barrier  $t_q$  at home is monotonic (but not strictly), increasing with the bargaining power  $\gamma$ . However the relation between the trade barrier  $t_q$  and the bargaining power  $\gamma$  is dependent on the level of the threshold point  $t_{FM}$  of the foreign government.

In the case that the threshold point  $t_{FM}$  of the foreign government is sufficiently high ( $t_{FM} \geq$

$t_I$ ), the relationship between the bargaining power  $\gamma$  and the trade barrier  $t_q$  seems to express the curve  $ABCD$ . In CASE III where the bargaining power  $\gamma$  is weak, the negotiation results are restricted by the win set of the inward-looking ministry. Even if the bargaining power is strengthened in CASE III,  $t_q = t_d$  is not affected by it. When its bargaining power is strengthened and hence the negotiations are conducted in CASE II, the negotiation results reflect the preference  $t_G$  of the chief negotiator. Furthermore, in CASE I the trade barrier  $t_q$  rises while the foreign government constrains it. In the case that the threshold point of the foreign government is sufficiently low ( $t_{FM} < t_I$ ), the relationship seems to show the curve  $ABC \text{ "}_1C \text{ "}_2D$ . When the bargaining power of the inward-looking ministry is strengthened, the negotiations break down at the threshold point  $t_{FM}$  and then the trade barrier  $t_q$  does not change from the status quo  $t_I$ .

When EVSL negotiations started in November, 1995, the influence of the free trade oriented MITI was strong. Until the leaders meeting in November, 1997, the relation between the bargaining power  $\gamma$  of the inward-looking ministry and the trade barrier  $t_q$  would be at the point APEC<sub>97</sub> in CASE III in FIGURE 3, and the trade barrier  $t_q$  at home would be expected at the moderate level. On the other hand, as it was clear that the package approach would be selected, the influence of MAFF increased, and the relation between the bargaining power  $\gamma$  and the trade barrier  $t_q$  moved in CASE II and CASE III, and the negotiation results were expected to be more protective. The threshold point of the foreign government is low under the package approach. The point APEC<sub>98</sub> expresses the situation at the time of the negotiations' breakdown.

Second, the trade barrier  $t_q$  at home decided by the negotiation results depends on the preference  $t_I$  of the inward-looking ministry (MAFF). The preference  $t_I$  has influence on the range of CASE III, which is restricted by the win set of the inward-looking ministry and the level of the trade barrier  $t_q$  there.

When the inward-looking ministry strengthens its protective intention ( $t_I < t'_I$ ), the relation between the bargaining power  $\gamma$  and the trade barrier  $t_q$  is expressed by the curve  $A'B'C'D'$ . The range of CASE III widens as a result of the narrowing of the win set of the inward-looking ministry, and the trade barrier  $t_q$  decided in this range rises to  $t'_d$ . On the other hand, because the foreign win set spreads out, the range of CASE II, where the trade barrier  $t_q$  at home is restricted by the foreign win set, and the range of CASE I, determined by the preference  $t_G$  of the chief negotiator, move to the right.

After December, 1997, the preferences of the inward-looking ministry and the chief negotiator were moved in a more protective direction by political pressures. The opposing groups such as the interest groups and the *norin-zoku* lobbied to influence policy in advance of the leaders meeting in November 1998. As a result, it is thought that the preference of the inward-looking ministry became more protective.<sup>19)</sup>

Third, the effects that the bargaining power  $\gamma$  of the inward-looking ministry (MAFF) have on the negotiation results are dependent on the threshold point  $(0, t_{FM})$  that the foreign government holds for acceptable agreement. The possibility of agreement in international negotiations becomes large, so the threshold point  $t_{FM}$  is high. Conversely, it becomes very likely that international negotiations will break down so that the threshold point is low. The package approach lowers the threshold point of the foreign government and raises the possibility of the breakdown of negotiations.

19) On November 11, 1998, *JA Zenchu*, the Forestry Association and *Zengyoren* held a joint conference at the LDP's headquarters (Okamoto 2004, 98).

The trade barrier  $t_q$  at home agreed to by international negotiations depends on the threshold point  $t_{FM}$  of the foreign government. If the threshold point  $t_{FM}$  is sufficiently high, as the bargaining power  $\gamma$  of the inward-looking ministry is strengthened, the chief negotiator can agree with the higher trade barrier  $t_q$ . However, if the threshold point  $t_{FM}$  is sufficiently low, the agreed trade barrier  $t_q$  becomes low. In CASE III, even if the bargaining power of the inward-looking ministry is strengthened, the agreed trade barrier  $t_q$  does not change.

In October, 1998, Agriculture State Secretary Tadahiro Matsushita and Forestry Agency's Director General Toru Yamamoto visited Malaysia, Indonesia and Thailand, and another State Secretary Hiroaki Kameya visited China and Korea, in company with the Director General of the Fisheries Policy Planning Department and the Fisheries Agency. In November, the same year MAFF Minister Shoichi Nakagawa visited the United States and talked with Assistant to the President for Economic Policy Gene Sparling, USTR Charlene Barshefsky, and Agriculture Secretary Dan Glickman (Okamoto 2004, 96-97). These visits and talks were efforts to raise the threshold point of the foreign governments, but they did not succeed.<sup>20)</sup> After all, because the increased influence of MAFF exceeded the threshold point ( $\gamma_{FM}$ , related to  $t_{FM}$ ) of the foreign government, the international negotiations broke down and the EVSL negotiations failed.

## 5. Concluding Remarks

We examined the effects that bureau-pluralism in Japan's domestic politics has on trade liberalization negotiations. Our main conclusions are summarized as follows.

First, in the case that ministerial preferences are sufficiently similar and when groups opposing trade liberalization (domestic firms) exert political pressure on the outward-looking ministry, the trade barriers at home and abroad are raised. However, when political pressure is exerted on the inward-looking ministry, the trade barrier is raised at home, while the effect on the foreign trade barrier is dependent on the bargaining power of the inward-looking ministry. On the other hand, when the promoting groups (consumers and oversea firms) exert political pressure on the outward-looking ministry, the trade barriers at home and abroad are decreased. However, when political pressure is exerted on the inward-looking ministry, the trade barrier at home decreases, while the effect on the foreign trade barrier is dependent on the bargaining power of the inward-looking ministry.

Second, in the case that the ministerial preferences become moderately different, the result of trade liberalization negotiations is determined by the preference of the chief negotiator at home, and his preference comes under the influence of the inward-looking and outward-looking ministerial preferences and the bargaining power between the ministries. The political pressure that the opposing (promoting) group exerts on the inward-looking and outward-looking ministries and the increased bargaining power of the inward-looking ministry increase (decrease) the trade barrier at home, but those do not change the trade barriers abroad.

Third, in the case that the ministerial preferences become sufficiently different, the result of the trade liberalization negotiations is determined by the preference of the inward-looking ministry, and political pressure on the outward-looking ministry does not affect the negotiation results.

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<sup>20)</sup> In the United States, the interest groups for liberalizing forestry products exerted political pressures on the government (Krauss 2004, 277).

The political pressure that the opposing (promoting) group exerts on the inward-looking ministry increases (decreases) the trade barrier at home while it does not change the trade barriers abroad.

Finally, we point out future problems. In this paper, it is assumed that the chief negotiator at home has the right of proposal in trade liberalization and the inward-looking ministry and the foreign government have veto authority. Different results are expected with different negotiation rules. In addition, we do not consider the economic cost of the political pressures. We need to examine these points as future problems.

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