Explaining Gradualism in Trade Liberalization: A Political Economy Approach

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A notable feature of many international trading relationships is the gradual way in which barriers to trade have been dismantled in the post-war period (Bhagwati, 1988). Most notably, large-scale tariff reductions within the framework of the GATT/WTO have come as a result of a series of nine rounds of negotiations that began in 1947. From a theoretical point of view, it is not clear why this process should either proceed in stages or be inherently time consuming. But if one begins from the assumption that free trade is efficient, it makes sense to look for mechanisms related to whatever frictions have led to trade being restricted in the first place.

I argue that one important reason that inefficient tariffs are maintained is the exertion of political power by inefficient import-competing industries. When an industry encounters a shock to its support such as a key politician losing an election or an important committee position, its ability to maintain its current level of protection is reduced. The resulting loss of protection and therefore rents can lead to erosion of future political power and accompanying protection. I make this argument using a dynamic model of political economy. I plan to provide supportive evidence from peril point investigations in the early rounds of the GATT negotiations.

Explanations for Gradualism

Various approaches have been used in the literature to model gradualism in trade liberalization. In Devereaux (1997), increasing benefits of integration to consumers gradually increase the costs of trade wars and lead to free trade over time. Similarly, Chisik's (2003) assumption that capacity accumulation in the export sector is partially irreversible leads to a gradually increasing dependence of export producers on trade and therefore increases countries' incentives to lower tariffs in successive negotiating rounds.

Several other papers have focused on mechanisms involving the import-competing sector. Staiger's (1995) model focuses on reductions in the size of the import-competing sector, with gradualism arising from the presence of workers with specialized skills that allow

them to earn rents in the import-competing industry. Each successive round of trade liberalization displaces a small percentage of these workers, who then lose their rent-earning skill with some exogenous probability. When this occurs, they have no rents to protect in subsequent liberalization rounds and further tariff cuts can occur. In the context of unilateral trade opening, Mehlum (1998) demonstrates that gradual tariff reductions can improve welfare in the presence of a minimum wage, whereas Mussa (1986) shows similar results by assuming the presence of adjustment costs that are convex in the number of workers leaving the import-competing sector. Furusawa and Lai (1999) show a similar result in the context of an infinitely repeated tariff setting game between governments, and Zissimos (2007) demonstrates that the GATT requirement that punishments be limited to the 'withdrawal of equivalent concessions' generates gradualism.

Economic and Political Organization

I seek an explanation of the observed gradual reductions in barriers to trade that is fundamentally one of political economy, that is, a story that does not hinge on the specific nature of trade. The hope is that *if* such an explanation exists, important lessons could be learned from the experience of trade liberalization under the GATT that could be applied to other issue areas in which international cooperation has been more circumscribed.

Even in the context of Staiger's (1995) model, gradualism can be halted if the factors of production in the import-competing sector are able to organize. In his formulation, each time the tariff is lowered, a few of the workers who were previously able to earn rents there leave the import-competing sector and this leads the government to further lower the tariff in the next time period because for any given level of protection, there is less to be gained while the costs of distortions remain the same. Under the right set of parameter values, this eventually leads to an elimination of tariffs and therefore rents for all workers.

If the workers could organize, those workers who would have remained in the import-competing industry would find it in their interests to pay the workers who would otherwise leave enough so that they would find it attractive to stay. This would curtail the process of tariff reductions and preserve the rents that all workers earn into the indefinite future. As soon as we assume that economic power is somehow organized or concentrated, we should also consider that this might translate into political power that could be wielded to influence the policy-making process in favor of those who hold it.

To model the influences of organized special interests, I follow the "political support" approach that was crystalized in Grossman and Helpman (1994). Incumbent politicians maximize a welfare function that depends on a sum of consumer surplus, producer surplus and tariff revenue, where the weight on the producer surplus in an industry is a function of

the effort that is exerted by the industry's lobby.

In the simplest version of the model, I focus on a small, open economy with one import-competing sector and one export sector. I assume there is only one lobby, which represents the import-competing sector. I assume output does not depreciate and that there are no capital markets. The firm's objective function is to maximize profits net of lobbying effort over the infinite future horizon. With no borrowing, there is a period-by-period non-negativity constraint on firm's wealth (the state variable). The firm can choose to contribute more than its profits from a given period, but only up to the amount it has saved.

An important new feature here is that the import-competing industry can make strategic decisions in the current period in order to impact its future payoffs; the import-competing industry is now "organized" and can therefore make tradeoffs at the margin that the unorganized workers in Staiger (1995) could not make.

Intuition for Politically-driven Gradualism

Buzard (2016) shows that in a simple repeated game where lobbying effort simply determines who is the median policy-maker, the trade agreement tariff decreases if the political weighting function shifts downward. That is, if it becomes more difficult to translate lobbying effort into political support, the lobby will receive lower levels of tariff protection in equilibrium. This means that if there is an unanticipated negative shock to the import-competing industry's political support—imagine that a key legislator is not re-elected, dies, or loses an important committee assignment—the trade agreement tariff falls. If changes in the political support function are exogenous, this mechanism would lead to the gradual reduction of tariffs only if there is strong serial correlation in the shocks.

Changes in the political support function—that is, how lobbying effort is translated into the weight the median policy-maker places on the import-competing industry's profits—are unlikely to be unaffected by the level of protection the lobby receives. In particular, we can think of the industry as making a joint decision about investments in productive activities and efforts to get supportive politicians elected/re-elected. This decision will be influenced by the prevailing domestic price, and thus, by the level of protection agreed in the immediately-preceding round of trade negotiations.

The relationship between investments in productive capacity and political support determine when gradualism can arise through this mechanism. If there is sufficient substitutability between these investments, the reduction in tariffs could drive increased political support and ward off further declines in protection. However, if these investments are complements, lower tariffs will lead to reduced production as well as smaller investments in future political support and a further reduction in future tariffs.

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Model

In this model, I will explore how two large, symmetric countries might interact when setting trade policy. This will be a fully dynamic, infinite-horizon model in discrete time. There are two countries, Home (H) and Foreign (F); one factor of production, labor (l); a non-traded good (N) and two manufacturing goods (X and M). N is produced one-for-one from labor, while the production functions for the manufacturing goods in each country i are $X_i = A_i^{1-\alpha} l_{it}^{\alpha}$ and $M_i = B_i^{1-\alpha} l_{it}^{\alpha}$ where $A_H > A_F$ and $B_H < B_F$ so that under free trade, Home will export X and import M.

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Consumer preferences, both for workers and entrepreneurs are specified as $U(c_M, c_X, c_N) = \nu c_M - \beta \frac{c_M^2}{2} + \nu c_X - \beta \frac{c_X^2}{2} + c_N$. This implies that the demand functions are $d_X(p_X) = \nu - \beta p_X$ and $d_M(p_M) = \nu - \beta p_M$, where p_M and p_X are tariff-inclusive prices.

I follow Staiger and assume that the labor in the export sector is specific to that sector and therefore no movements into or out of this sector are possible in either country. This is done to focus the analysis on the dynamics in the import-competing sector. Again, for simplicity, I assume that the export sector in each country is perfectly competitive and therefore unable to lobby the government for protection.

In the import-competing sector, I assume that all production is carried out by a single firm that can also choose to lobby the government. I also assume that output does not depreciate and that there are no capital markets so that the owner can save output but cannot borrow against future earnings. The entrepreneur who runs the firm seeks to maximize the discounted sum of his consumption subject to a budget constraint: he cannot spend more on consumption, wages and lobbying than the total of his savings and gross profits. The idea behind the non-negativity constraint on wealth is that the firm can choose to contribute more than its profits from a given period, but only up to the amount it has saved. Importantly, in the first period, it can only overspend profits by the amount of its initial wealth. The entrepreneur's wealth will serve as the state variable of this problem; I hope that it, along with the initial tariff levels, will provide interesting comparative statics.

OR:

Then the firm's objective function is to maximize profits net of campaign contributions, C_t:

$$\max_{l_t,\tau_t} \sum_{t=0}^{\infty} \left\{ B^H l_t (p_M^F + \tau^H) - w_t l_t - C_t(\tau_t) \right\} \quad \text{s.t.} \quad W_t \geq 0$$

where W_t is total wealth.

For the initial analysis, I will assume that the import-competing firm is a price-taker in world markets. Therefore, it cannot set prices or quantity as a monopolist because it is constrained by the perfectly inelastic supply of goods from the foreign country at the tariff inclusive price. The important new feature here is that the monopolist can make strategic decisions in the current period in order to impact its future payoffs; the import-competing industry is now "organized" and can therefore make tradeoffs at the margin that the unorganized workers in Staiger (1995) could not make.

We need to specify the government's welfare function and the precise timing of actions in order to determine how the firm will make these decisions. If the politician in power were completely selfless and sought only to maximize the welfare of voters, lobbying could not have an impact on his decision.[1] Instead, as discussed above, I follow Grossman and Helpman (1994) in assuming that an incumbent politician maximizes his political support with the goal of being re-elected. Although the election itself is not explicitly modeled, our politicians trade off financial contributions from the lobby against the loss of support from voters that results from implementing socially-suboptimal policies. Grossman and Helpman show that one can model political conflict such as that between the import-competing firm owner and the rest of society with a weighted social welfare function such as the following:

$$G(\tau) = C(\tau) + aW(\tau)$$

where C is the lobby's contribution function, τ is the tariff level, and W is aggregate welfare.

I model the timing within each period, which we might think of as an electoral cycle, as follows:

1. Lobby formulates and delivers contribution schedule $C_t(\tau_t)$

2. Government chooses τ_t

[1] This might not hold if the government does not have full information and the lobby can communicate information through its contribution schedule, but we assume full information.

3. Lobby pays contribution, government enforces tariff
4. Production takes place, workers are paid
5. Tariff revenue is distributed and consumption takes place
6. Election occurs (not explicitly modeled)