

Theory of Protectionism Fluctuations Caused by a Support-Maximizing Government

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Fluctuations of protectionism are explained in a model with a political support-maximizing government and a small group of pro-protectionist producers. Due to elections, the government changes the level of protection, though there are no variations in preferences for protection. (JEL F13)

I. Introduction

The level of protection can be explained as an equilibrium in the political market of protection, with the government or parties as monopolistic suppliers and pressure groups as demanders [Hillman, 1982]. Protection suppliers maximize their overall political support by choosing the level of protection that generates a politically optimal distribution of the economic rents that can be realized by the participants in each affected market [Stigler, 1972]. The behavior of economic agents in seeking to influence trade policy is predicated on their economic self-interest as gainers or losers from protectionist policies. The positive- or negative-influenced individual has two ways to influence political support. On the one hand, the individual can vote, the vote being direct political support. On the other hand, that individual can establish a pressure group for or against protection. The interest group approach [Becker, 1983; Dougan, 1984] shows that pro-protectionist interest groups of producers and owners of sector-specific factors are able to succeed, though many more voters, such as consumers, prefer free trade.

There are empirically evident [Bohara and Kaempfer, 1991] fluctuations of the protection level which cannot be explained by ideology, General Agreements on Tariffs and Trade negotiations, or other historical variables. Takacs [1981] shows that although the pressure for protection increases in times of economic stress, the government does not necessarily respond to it, though the reason why is unknown. Furthermore, no theoretical explanation exists for that phenomenon called tariff cycle except a specific model with declining industries [Cassing et al., 1986; Cassing and Hillman, 1986].

This paper investigates fluctuations in protectionism caused by the supply side, i.e., government policy. The statistical nonsignificant hypothesis of Tosini and Tower [1987, p. 21] is the standard view of such dynamic variation of protection: "The more time a congressman has before he is up for reelection, the more he can afford to weigh the long-run term benefits of unfettered trade against the short-term benefits of protection." Therefore, the optimal trade strategy for a government is a protectionist policy before and a non-protectionist policy after an election. The intuitive arguments are as follows: 1) pro-protectionist interest groups of import-competing industries are successful in

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supporting the government because they are small and organized; and 2) anti-protectionist interest groups of export industries and consumers are powerless because the losses of protection are spread over many losers [Olson, 1965]. The pro-protectionist interest groups support the government via contributions to the election campaign and the organized bloc of voters. During the campaign, this support is important for the government and, therefore, the government responds to the pressure with a protectionist policy.

But the following investigation shows that the changes of the government's trade policy are caused by changes in the relative power of pro- and anti-protectionist voters and are not caused by absolute high levels of interest groups' pressure. During the campaign, anti-protectionist consumers are important too, and only the relative power counts.

The present work investigates a theoretical model of dynamical protectionism in a political framework. It shows the dependence of the trade policy in a political system with regular elections and constant protectionist preferences of voters, interest groups, and politicians. Moreover, it disproves the common view of the tariff cycle.

II. The Model

The model is based on a VP-function [Nannestad and Paldam, 1994] and follows the Hibbs [1982] approach. Voters evaluate the government during the election period. This valuation called popularity P depends on actual policy and reputation. The actual protectionist policy p is compared to the individually optimal policy.

The model is based on the fact that pro-protectionist interest groups can beat a majority of anti-protectionist voters. Therefore, the accumulated evaluation of government only by the foreign trade policy must shrink if p increases. In addition to this, the government has a reputation R and this reputation influences the decision positively. The reputation of the government is built by promotion and public relation work during the past. This is the interest groups' way to influence the policy.

Past events are the relevant ones to describe voting behavior [Fiorina, 1978 and 1981; Kinder and Kiewiet, 1979]. Voting is retrospective and the whole theory of forward looking and rational expectations turn out to be irrelevant in this framework [Nannestad and Paldam, 1994]. Whenever the government is interested in political profits, i.e., pluralities, it has to maximize the aggregate vote based on experiences.

Voters' experiences are not only a simple average of the past because on election day, the memory of recent protection is more important than that of previous events. Experiences decay with rate β . The reputation at the election day has a value S , though it will be merely useful if the government wins the election. Therefore, the government maximizes the aggregate value of votes $V = \int_0^T \exp^{\beta t} P dt$ at the election day T , plus the value S of reputation for the next election period and further future:

$$\max \int_0^T \exp^{\beta t} P(R, p) dt + \exp^{\beta T} S(R(T)) \quad (1)$$

with

$$P_p < 0, \quad P_R > 0, \quad S_R > 0 \quad (2)$$

and

$$P_{RR} \leq 0, \quad P_{pp} \geq 0, \quad R(0) = R_0, \quad S_{RR} = 0, \quad (3)$$

$$\lim_{R \rightarrow 0} P_R(R, p) = \infty, \quad \lim_{R \rightarrow \infty} P_R(R, p) = 0. \quad (4)$$

The conditions in (3) and (4) are technical assumptions which are required for the existence and uniqueness of equilibria.

The reputation is a stock which is built by expenditures of interest groups for advertising, public relation, and publicity. The change of reputation $\dot{R} = f$ results from the behavior of producers and consumers. As protectionism creates large gains for small groups at the expense of low losses to the public, there are only pro-protectionism interest groups of producers [Olson, 1965; Magee and Young, 1987]. The support of rent-seeking producers increases when protection grows, and without protection, there is no support by producers. The reputation depreciates because voters forget the reputation in the past with rate r . This is a well-known key result of empirical voting theory called "cost of ruling" [Nannestad and Paldam, 1994, p. 217]. Voters forget reputation built by advertising faster than the valuation of government's foreign trade policy due to their income situation, i.e., their trade preferences, because otherwise voters preferences would be irrelevant. For simplicity, additivity is assumed for f , i.e., $f_{Rp} = 0$. To summarize, the behavioral assumptions¹ are:

$$\dot{R} = f(R, p) = -rR + \tilde{f}(p) \quad (5)$$

and

$$f_p > 0, \quad f(0, 0) = 0, \quad f_R = -r < 0, \quad r > \beta, \quad f_{Rp} = 0, \quad f_{pp} \leq 0, \quad (6)$$

in which $f_{pp} \leq 0$ is a technical assumption which is required for existence and uniqueness of equilibria.

Theorem

a) *If the government maximizes (1) in a political situation (2) through (6) and*

$$R(0) \leq R(T) \leq \hat{R}, \quad (7)$$

the optimal trade policy decreases during the election period.

b) *Condition (7) is valid for a government with a limited planning horizon.*

¹ The solution is unchanged, even if the government does not use the money for advertising at the moment of payment [Feichtinger and Hartl, 1986, pp. 122-6].

Proof

The current-value Hamiltonian belonging to the control problem is:

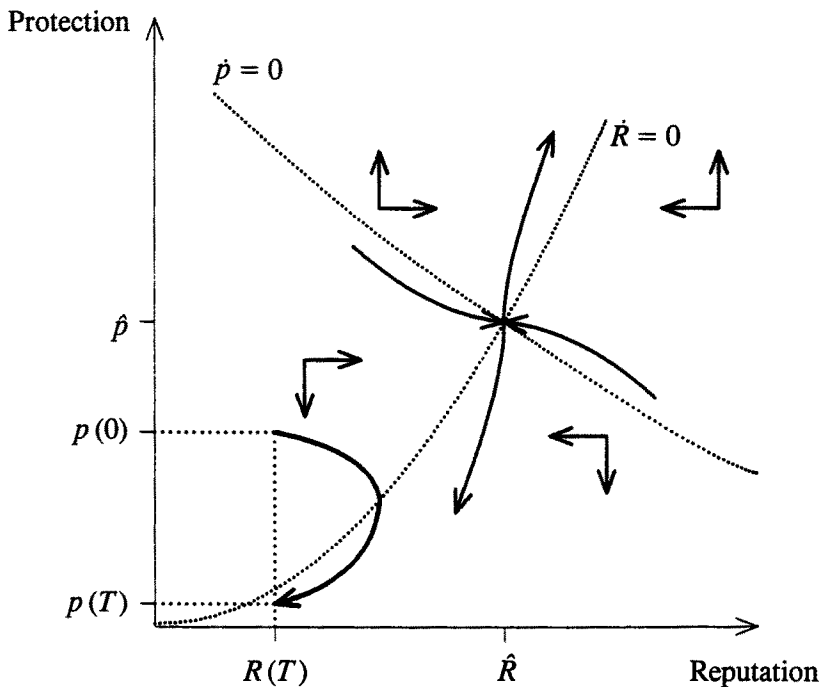
$$H(R, p, \lambda, t) = P(R, p) + \lambda f(R, p) \quad (8)$$

and the canonical differential equation system

$$\dot{R} = f(R, p) \text{ and } \dot{\lambda} = -r\lambda - H_R(R, p, \lambda, t) \quad (9)$$

contains [Feichtinger and Hartl, 1986, pp. 84-106] a unique saddle point equilibrium $(\hat{R}, \hat{p}) > (0, 0)$. The optimal policy is represented in Figure I. Statement a) of the theorem results directly from the phase diagram.

FIGURE I
Phase Diagram



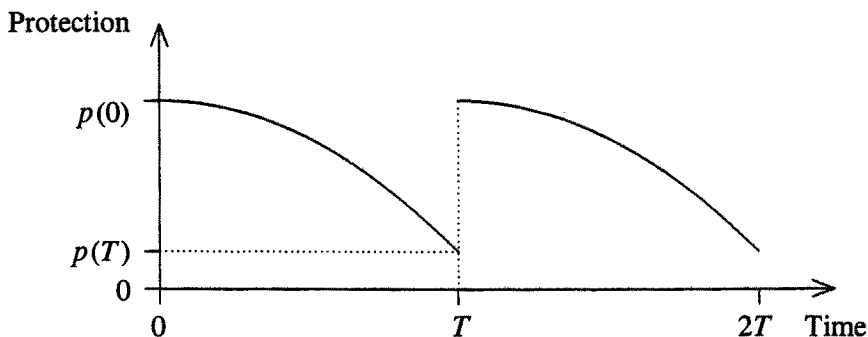
It is $R(0) = R(T)$ for a reelected government because administration built the optimal reputation stock in the last period. The reputation originates exclusively from support of interest groups for received protection. For the new government, $R(0) < R(T)$ holds since there is no interest group supporting the opposition merely due to promises. Only the government can change the degree of protection, so no interest group supports a party during the term in opposition. Therefore, $R(0) \leq R(T)$ and from this and Figure I it follows that $dp/dR > 0$ for t close to T . Because of the limited planning horizon, the value of reputation for the government at the election day is smaller than in the case of

unlimited planning. Furthermore, $S_{RR} = 0$ and because of the transversality condition, $\lambda(T) = S_R(R(T))$ follows $\lambda(T) < \hat{\lambda}$ and, therefore, $p(T) < \hat{p}$. Summarized, $R(T) < \hat{R}$, i.e., (7) holds.

The static interest group approach to protectionism shows that pro-protectionist interest groups of producers and owners of sector-specific factors are able to receive protection though there are many more voters preferring free trade. In a dynamic view, the following effect occurs additionally: during election campaigns, the influence of interest groups is larger than at the beginning of the election period but at this time, consumers are most important also. The reason for fluctuations of the level of protectionism is the relative power of pressure groups and consumers. During the election period, the importance of consumers rises and the power of interest groups shrinks. Therefore, the government increases protection after the inauguration and cuts it during the term at office.

Whenever the government is reelected, then $R(0) = R(T)$ and a cycle like the trajectory in Figure I is established. A level of high protectionism is reduced to a low level during the term of office, but after the next election, the level increases abruptly (Figure II).

FIGURE II
The Political Protection Cycle



III. Conclusion

The level of protectionism is determined by the relative power of interest groups and voters. Both are strong during the campaign and at election day, but the relative power of voters is small at the beginning and high at the end of the election period. Therefore, the public support-maximizing government decreases the protectionism level during the election period. Without re-election effect, i.e., with an unlimited planning horizon, the static results are confirmed.

REFERENCES

- Becker, G. S. "A Theory of Competition among Pressure Groups for Political Influence," *Quarterly Journal of Economics*, 98, 3, 1983, pp. 371-400.
- Bohara, A. K.; Kaempfer, W. H. "Testing the Endogeneity of Tariff Policy in the U.S.," *Economics Letters*, 35, 3, 1991, pp. 311-5.

- Cassing, J.; Hillman, A. L. "Shifting Comparative Advantage and Senescent Industry Collapse," *American Economic Review*, 76, 3, 1986, pp. 516-23.
- Cassing, J.; McKeown, T. J.; Ochs, J. "The Political Economy of the Tariff Cycle," *American Political Science Review*, 80, 3, 1986, pp. 843-62.
- Dougan, W. R. "Tariffs and the Economic Theory of Regulation," *Research in Law and Economics*, 6, 1984, pp. 187-210.
- Feichtinger, G.; Hartl, R. F. *Optimale Kontrolle ökonomischer Prozesse*, Berlin, Germany: de Gruyter, 1986.
- Fiorina, M. P. "Economic Retrospective Voting in American National Elections: A Micro-Analysis," *American Journal of Political Science*, 22, 2, 1978, pp. 426-43.
- _____. *Retrospective Voting in American National Elections*, New Haven, MA: Yale University Press, 1981.
- Hibbs, D. A. Jr. "On the Demand for Economic Outcomes: Macroeconomic Outcomes and Mass Political Support in the United States, Great Britain, and Germany," *Journal of Politics*, 44, 2, 1982, pp. 426-62.
- Hillman, A. L. "Declining Industries and Political-Support Protectionist Motives," *American Economic Review*, 72, 5, 1982, pp. 1180-7.
- Kinder, D. R.; Kiewiet, D. R. "Economic Discontent and Political Behavior: The Role of Personal Grievances and Collective Economic Judgements in Congressional Voting," *American Journal of Political Science*, 23, 3, 1979, pp. 495-527.
- Magee, Stephen P.; Young, L. "Endogenous Protection in the United States, 1900-1984," in Robert M. Stern, ed., *U.S. Trade Policies in a Changing World Economy*, Cambridge, MA: MIT Press, 1987, pp. 145-95.
- Nannestad, P.; Paldam, M. "The VP-Function: A Survey of the Literature on Vote and Popularity Functions after 25 Years," *Public Choice*, 79, 3-4, 1994, pp. 213-45.
- Olson, M. *The Logic of Collective Action*, Cambridge, MA: Harvard University Press, 1965.
- Stigler, G. "Economic Competition and Political Competition," *Public Choice*, 13, 1, 1972, pp. 91-106.
- Takacs, W. E. "Pressures for Protectionism: An Empirical Analysis," *Economic Inquiry*, 19, 1981, pp. 687-93.
- Tosini, S. C.; Tower, E. "The Textile Bill of 1985: The Determinants of Congressional Voting Patterns," *Public Choice*, 54, 1, 1987, pp. 19-25.