

Kaempfer, William H.; Tower, Edward; Willett, Thomas D.

Working Paper

Trade protectionism

Claremont Colleges Working Papers, No. 2002-19

Provided in Cooperation with:

Department of Economics, Claremont McKenna College

Suggested Citation: Kaempfer, William H.; Tower, Edward; Willett, Thomas D. (2002) : Trade protectionism, Claremont Colleges Working Papers, No. 2002-19, Claremont McKenna College, Department of Economics, Claremont, CA

This Version is available at:

<https://hdl.handle.net/10419/31449>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Trade Protectionism

If we had a situation where these [steel workers] were our constituents and someone was breaking in their house and raping and robbing and pillaging them, we would want to send in a policeman to do something. In this instance, they [importers of foreign steel] are just coming in and taking their future, they are taking their jobs, they are taking all of their dreams away. ... We must stand up for the people of this nation. We must stand up with a force of steel and with a backbone of steel. (Mr. Klink, Pennsylvania, *Congressional Record*, 1999).

...the [steel import quota] bill before the Senate is a job killer, a trade war starter, and it is a bill that will destroy 40 jobs in steel-using industries for every one job it saves in steel producing. (Mr. Gramm, Texas, *Congressional Record*, 1999).

1. If free trade is efficient why isn't it universal?

Explaining trade protectionism has been one of the most fruitful areas for the application of public choice analysis. Economists have long faced a conundrum. If our theory is correct that seldom do deviations from free trade improve economic efficiency, why is it that in the real world free trade is the exception rather than the rule? Public choice analysis provides the answer. In common practice, economists ascribe the property of aggregate economic efficiency to any policy moves that create sufficient gains so that the winner could compensate the losers with something left over, i.e., to any policy which expands the utility possibility frontier beyond the initial equilibrium. In practice, however, such compensation is seldom paid; a policy that expands the utility possibility frontier often makes some worse off. From the standpoint of political economy, policies that potentially raise everybody's utility have much less appeal than policies that actually make everybody better off. Despite the frequency with which international trade theory is mischaracterized, it does not prove that everyone gains from free trade, even when there are no domestic market failures. It proves only that in money

terms the gains from free trade in total are greater than the losses, in the sense that there is some set of transfers from winners to losers that could make everybody better off (Willett 1995). If we assume that most individuals and groups are more interested in their own costs and benefits than in those for their country or the world, then it is perfectly consistent with rational behavior for some individuals and groups to favor trade protection for their industries.

2. Why isn't protectionism more prevalent?

Before public choice analysis became widely known, some economists predicted that free trade eventually would reign. These predictions were based on the public interest assumptions that so often dominated discussion of economic policy or else on naïve political science models that predicted that any selective protection measures would be defeated, since a substantial majority would lose from such protectionism. The rent-seeking model of public choice makes quite different predictions. This model stresses costly information and the incentives for free riding that imply many voters will be rationally ignorant or not vote. Concentrated efforts by well-organized producer groups give them incentives to be highly active politically and generally result in more producer than consumer influence on the political process. The prevalence of protectionist tariffs, quotas, and voluntary export restraints (VERs) are a direct result of this process. Thus public choice analysis yields powerful insight into the formation of trade policy.

Despite the importance of its insights, there is a serious problem with such applications of simple rent seeking theory to trade policy. It explains too much!

Having shown how rent seeking theory can explain protection, the current challenge for public choice analysis is to explain why protectionism is not much more

prevalent. While the United States does have many formal and informal trade barriers today, they are relatively minor compared with the high levels of protection provided by the Smoot-Hawley tariffs of the 1930s. The story is the same for many other countries as well.

The search for answers to this question has led public choice analysts and political scientists to focus on a wider range of considerations such as the roles of ideas and institutions, the objectives of the executive branch, and the emergence of anti-protection interest groups. It is important to recognize that this richer menu of considerations offers complements to, not substitutes for, rent seeking theory.

3. The national interest, interest groups and protectionism.

Most of the early analysis of trade policy took the country as the basic unit of analysis and focused on calculations of the so-called optimal tariff whereby a country with market power could use trade barriers to improve its terms of trade. Optimality came from balancing these gains against the portion of the standard efficiency costs of protectionism borne by the home country. Retaliation reduces the scope for gains but sometimes they remain positive. Such optimum tariff models were used to provide a rationale for international agreements like GATT to dampen countries' incentives to play such games. However, with the exception of cases of economic warfare, such optimal tariff modeling provides fairly little insight into the actual formulation of trade policies or the best design for institutions to limit protectionism.

Considerably more explanatory power seems to flow from both the standard rent seeking models and modern mercantilist models in which national leaders believe trade surpluses are good for the national economy and/or national power and security.

Naturally, for the latter to be an argument for tariffs one must ignore the truth that under a flexible exchange rate or in the long run under the specie-flow mechanism, protectionism is unlikely to improve the trade balance, because import tariffs depreciate the currency, expanding net exports. Of course, rent seeking, mercantilism and bad economics are all tied together, for rational interest groups will attempt to take advantage of mercantilist ideologies and bad economics (Ekelund and Tollison 1981).

Unified rational actor or billiard ball views of nation states also characterize what has traditionally been the dominant school of thought in the literature on international political economy written by international relations scholars. Dubbed realist or modern mercantilist, this approach focuses on the countries' search for power and security and the role of international power structures in shaping outcomes in the international system. It is widely accepted that such views have considerable explanatory power for France, Japan, and a number of the newly industrializing countries. Foreign policy and national security objectives do not always militate for trade protectionism, however. In the United States during the postwar period the idea that liberal trade policies helped promote U.S. foreign policy and national security considerations was a powerful force behind efforts by both Democratic and Republican administrations to promote trade liberalization and fight protectionism (Finger 1991).

Such foreign policy concerns and learning from the disaster of the Great Depression combined to foster institutional reforms designed to treat trade policy as an aspect of foreign policy, not just domestic policy, and to strengthen the hand of the executive branch relative to Congress in setting trade policy. These are the major explanations for the progressive lowering of US trade barriers during the first several

decades of the postwar period. (See Goldstein [1993], Ikenberry et al. [1988], and Rowley et al. [1995]).

Willett (1995) argues that the slowing of the U.S. movement toward trade liberalization can be explained by the weakening of both national security concerns and the clout of the executive branch relative to Congress combined with the growth of interest group pressure. Thus while the standard realist interpretation sees the increase in U.S. protectionism as resulting from a strong government, Willett's interpretation sees this process as a result of a weakening of the power of the state relative to domestic societal (rent seeking) pressures.

4. The public choice approach to protectionism: some theory.

a. rent seeking

An important early contribution to the public choice approach to protection is Tullock (1967), which argues that the resources absorbed in lobbying for protection may outweigh the cost of protection itself. Krueger (1974) develops a similar theme. She models the resources sacrificed in the competition for import licenses. But, she stresses the important idea that in many economies government restrictions upon economic activity are pervasive facts of life, giving rise to rents, and people often compete for the rents, a process called rent seeking and one that uses up resources. Bhagwati (1982) notes that in a distorted economy profit-seeking activities, including lobbying for protection, smuggling and competing for import licences, while not directly productive, may be indirectly welfare enhancing, by using up resources that are doing damage elsewhere. Krueger also emphasizes that rewarding rent seekers undermines the faith of the public in

the fairness of markets, which leads to more government intervention and hence a vicious circle of ever increasing rent seeking,

b. the median voter

Markussen, Melvin, Kaempfer and Maskus (1995, ch19) offer an accessible review of the literature and we draw on their discussion. Much of public choice modeling is based on the idea that public officials enact policies to maximize the probability of their being reelected. Suppose that the voters in an electorate are arranged on a line, in order of the level of protectionism that they support. If the level of protectionism is to be decided by referendum, the bill with the most support will be that which appeals to the median voter. If voting is by a legislature, legislators who support the level of protection supported by the median voter will tend to be elected.

In most economies, voters own disparate amounts of capital, so there are a few who own much capital and many who own none, but all voters own similar amounts of the factor labor. Consequently, the median voter is likely to vote according to the interests of labor. The Stolper-Samuelson theorem states that when both labor and capital are mobile between sectors and certain other conditions are satisfied, labor will benefit or suffer from protection depending on whether labor is the country's scarce or plentiful factor. The empirical implication of this is that labor-scarce countries are likely to have higher tariff rates on average than labor-abundant countries, even though for all countries, if they are too small to influence world prices, protection is harmful, in the sense that the gainers from free trade could compensate the losers and still be better off. Similar results occur in the overlapping generations model of Gokcekus and Tower (1998). They find that when a labor-scarce country liberalizes, even if all citizens have an identical pattern

of asset accumulation over their lifetimes, those who have already accumulated assets are capitalists who will gain from liberalization, while the young, who are workers now but will be capitalists later in life, may either win or lose. If most of the population is young, free trade may be resisted in a labor-scarce economy, even though it benefits the whole economy.

Even though free trade alone may be politically unpopular, by combining a trade bill with an income redistribution bill, the bill with the most appeal should include free trade for a country that faces fixed world prices. Moreover, even if world prices are not fixed, the cooperative arrangement with other countries that should meet with the widest approval is free trade combined with an appropriate transfer between nations (Copeland, Tower and Webb [1989]). These mechanisms should limit protectionism.

c. the status quo bias

Uncertainty associated with trade liberalization also helps explain why tariffs remain. Those who would be hurt by liberalization are easy to identify. Those who will gain better jobs through expanding opportunities in non-traded and export sectors are harder to identify. Thomas Shelling (1984) points out that voters tend to empathize with the easily identifiable. Consequently, governments may spend large sums of money to rescue one identifiable individual, even though that money could have been better used to save the lives of many unidentified individuals through medical research. Similarly, to the extent that voters empathize with obvious losers from freer trade, there may be little political pressure for trade liberalization, though the opportunity cost of each job protected may be vast. There is also some evidence from experimental economics (Knetsch [1989]) that people tend to value more highly what they own than prospective

possessions. Both of these ideas suggest what has been referred to as *status quo bias* against liberalizing trade policy. This bias is reinforced by Corden's (1974) *conservative social welfare function*, which implies that society will support policies that prevent falls in real income for any significant group. As Rodrik (1993) points out, this uncertainty may explain "why reforms that are instituted by an authoritarian regime against prevailing political sentiment survive the return of democracy (think of Pinochet's trade reforms in Chile)."

A further implication is that liberalization will be more likely in boom times, when incomes are rising, than in recessions. However, for the counter argument see Rodrik (1995, p. 1487) who argues that "a deep economic crisis relegates distributional considerations to second place behind economy-wide concerns and therefore allows an agenda-setting government to seek trade policy reforms alongside macroeconomic reforms.

d. picking the form of protection

Public choice also informs the choice between production subsidies, import tariffs and import quotas as ways to protect import competing industry. The welfare loss per unit of protection to the protected industry from quotas generally exceeds that from tariffs which exceeds that from subsidies. Thus consumers should rank the three policies in the indicated order. Home producers, *protection seekers*, are aware that quotas are less visible than subsidies or tariffs, and consequently are likely to rank quotas above the other two. Those who benefit from government spending, *revenue seekers*, are likely to prefer the revenue raising tariff to the neutral quota, and both are preferred to the revenue absorbing subsidy.

Yet another option is import quotas with the quota rights accruing to foreigners. Some of these are called VERs, or “voluntary” export restrictions, because the foreigners “voluntarily” restrict exports to avoid other forms of protection by the U.S. If set at the appropriate level, VERs turn competitive foreign firms into monopolists. These foreigners’ ideal form of protection is a VER set at their ideal level. These quotas, by restricting sales to the U.S. market and jacking prices up, enable foreigners to act as a cartel and buy off foreign resistance to U.S. protectionism (Kaempfer and Willett [1989]). Finally, Krueger (1983) has argued that all forms of import-substituting protection are inferior to export subsidies as ways of encouraging particular sectors, because the former have no budgetary cost, and are therefore more likely to be used excessively.

Becker (1983) provides an elegant solution to the question of why we end up at neither free trade nor autarky. He argues that the level of protection of the import competing sector at the expense of the rest of the economy is a function of the expenditure by lobbies for the two sectors. Each sector will expend time, energy and money on political pressure up to the point of balance between the expected incremental costs and benefits of further lobbying.

From Becker’s logic it follows that as the level of protection rises, further incremental increases in protection will yield smaller benefits to the favored sector relative to the costs to the harmed sector. This shrinks the level of lobbying by the former relative to the level of lobbying by the latter, resulting in an equilibrium level of protection. In essence, Becker argues if lobbying is balanced that the political system will tend to generate efficient outcomes.

Consequently, the political process will tend to choose efficiently between tariffs, the various forms of quotas, and subsidies. However, Cassing and Hillman (1985) and Kaempfer and Willett (1989) emphasize that the political process is most likely to coalesce support around the forms of protection that generate the best tradeoff between the goals of those groups who are best able to mobilize rent seeking resources.

Dixit, Grossman and Helpman (1997) emphasize the deadweight cost of lobbying. They suggest that the polity may have an incentive to pass a constitutional amendment to prevent the government from using efficient policies (like lump sum taxes and subsidies) to redistribute income, because restricting the choice to inefficient policies may shrink rent-seeking expenditures. Thus, their model suggests a new way by which distorting policies might emerge as a political equilibrium (Also, see Rodrik [1985]). A related issue is explored by Panagariya and Rodrik (1993). They build rigorous models to demonstrate that under certain circumstances welfare may be enhanced by forcing the government to protect only through a uniform tariff. Uniformity creates a free-rider problem, which reduces the incentives for tariff lobbying. Second, if there are imported inputs used in import-competing sectors, uniformity again reduces lobbying by those sectors. Finally uniformity may force future governments to limit their attempts to use tariffs to redistribute income.

Irwin (in progress) notes that in the early 1800s, the industrialized North-Eastern U.S. wanted tariffs to protect manufacturers, the developing West wanted tariffs for the revenues they generated, and the agricultural exporting South wanted free trade. But the revenue seekers were able to gang up with the protection seekers to muster enough political power to defeat the free traders. But the protection seekers do not always gang

up with the revenue seekers, because as Pincus (1980) notes in the early years of the U.S., protectionists wanted the tariff above the maximum revenue level, while revenue seekers wanted it below.

e. antidumping and administered protectionism

In recent years the use of antidumping statutes has become increasingly important. In the U.S. for an antidumping duty to be activated, the U.S. International Trade Commission (formerly the U.S. Tariff Commission) must find that imports have injured the domestic industry and the U.S. Department of Commerce must find that imports are priced unfairly. Blonigen and Prusa (forthcoming) lament the lack of transparency in antidumping decisions. They note that imports into the U.S. can be deemed “unfair” even if foreign firms earn healthy profits on each and every foreign sale.

“Foreign firms who charge not only higher prices abroad than they do at home, but also higher prices than their domestic competitors, are still saddled with dumping margins of 50 percent and higher. AD no longer has anything to do with predatory pricing. Even more to the point, all but AD’s staunchest supporters agree that AD has nothing to do with keeping trade “fair.” AD has nothing to do with moral right or wrong, it is simply another tool to improve the competitive position of the complainant against other companies.” “The ongoing tinkering with the AD statutes has weakened the law sufficiently that little real evidence of injurious dumping is required before duties are levied.”

They argue with precision and passion that U.S. AntiDumping statutes create perverse incentives. “A foreign industry can almost guarantee it will not be subject to AD duties if it charges sufficiently high prices in its export markets. On the other hand, a

domestic industry might resist lowering its prices...[and] might lay-off more workers than expected” as high import penetration and low domestic industry employment are used by the U.S. International Trade Commission to infer injury, which is a critical prerequisite for winning an AD case.

Political pressure matters in how the U.S. International Trade Commission handles antidumping complaints. As Blonigen and Prusa note, two oversight House and Senate subcommittees control the USITC’s budget and three studies all find that industries located in the districts of oversight committee members receive better treatment from the commission. Hansen and Prusa (1996, 1997) find that an additional oversight representative increases the probability of a finding of injury by about 8 percent. Moreover, they obtain an even more sinister result: “PAC contributions to the oversight members also improve an industry’s chances, which suggests that political pressure is generated not just by employment concerns, but also by re-election financing concerns.”

Antidumping opens up yet another channel for the distribution of rents. Hartigan and Rogers (forthcoming) find a pattern of insider buying in the two months preceding the filing of antidumping complaints, even though the Securities and Exchange Commission prohibits insider buying on the basis of material information that is not yet in the public domain.

5. Protectionism: empirical results.

Gawande and Krishna (forthcoming) survey empirical approaches to the political economy of trade policy. Baldwin (1985) finds that, for the U.S., sectors with low wages and a high ratio of labor to output tend to be highly protected. This implies that

protection is used to help low-income groups. He also finds that protection levels are positively related to industry employment levels, supporting the *adding machine model* (due to Caves, 1976), which implies that trade protection for an industry is related to its voting strength. Finally, he finds that protection is inversely related to the number of firms in the industry. This suggests that oligopolistic industries find it easier than competitive industries to overcome the free rider problem to muster protectionist legislation (confirming a result found by Pincus [1977] for the tariff act of 1824).

Dutt and Mitra (2001) empirically explore the Stolper-Samuelson argument discussed above. They find that all countries protect, but an increase in the gap by which the capital-labor ratio of the median family falls short of the average for the country raises protectionist barriers in capital-abundant countries and lowers them in labor-abundant countries, providing tentative support for the median voter theory. Magee and Baldwin (2000) provide further support for the theory, with their finding that a high proportion of less educated workers in an electorate, i.e., a lower endowment of human capital per worker, makes a U.S. Representative more likely to vote for protectionist legislation. Similarly, Kaempfer and Marks (1993) find that votes for fast-track authority (for the Bush administration to negotiate the Uruguay Round and NAFTA) were positively related to the average wage (human capital) and negatively related to labor PAC contributions.

Unsurprisingly, Goldberg and Maggi (1999) and Gawande and Bandyopadhyay (2000) both find that all else held constant, tariffs are higher, on average, in industries represented by organized lobbies, while Gawande, Krishna, and Robbins (2001) find that

industries with organized foreign lobbies have lower trade protection on average than industries without such lobbies.

A number of studies have examined the role of campaign contributions to legislators as a determinant of congressional voting on protectionism, e.g., Baldwin (1985), Tosini and Tower (1987), and Fisher, Gokcekus and Tower (2002). All these studies find that campaign contributions are an important determinant of congressional voting on protection. FGT found that protection can be bought cheaply. One thousand dollars from steel PACs paid to a Republican who is initially receiving no contributions raises the probability that he votes in favor of steel import quotas by 7 percentage points. Similarly, Gawande and Krishna (forthcoming, p.20) remark how small political contributions are compared to the efficiency losses that trade distortions cause.

Gibbs, Gokcekus and Tower (2002) explore yet another channel of political influence buying. They find that congressional campaign contributions by the steel industry purchased commentary in the Congressional Record in favor of the steel import quota bill of 1999, with the price of an additional word being quite low: less than \$100.

Tosini and Tower (1987) also find that a protectionist vote is more likely from a U.S. Senator who faces an election in the near future or a congressman whose electorate suffers from lots of unemployment or whose electorate exports relatively little of its output. Similarly, McArthur and Marks (1988) find that lame duck legislators are less protectionist, concluding that legislators tend to favor the general welfare if it doesn't cost them too much.

Bohara and Kaempfer (1991) and Takacs (1981) find that, for the U.S.,

unemployment tends to foster higher tariffs while inflation tends to lower them. Irwin (1998) suggests this effect is due to the widespread use of specific tariffs, or tariffs that are fixed per unit of good not per unit of value (*ad valorem* tariffs). However, since the type of tariff used is itself a choice of the policy makers, this counter-cyclical trend in tariff levels is probably intentional on more than one level. That is, not only *are ad valorem* rates raised and lowered in recessions and booms, but protection instruments are used that react in the same way to the economy without needing legislative or bureaucratic adjusting.

Consistent with this research, Magee, Brock and Young (1989) find that Republican administrations generate more protection than Democratic administrations do. Their mechanism is Republicans tend to be more ardent inflation fighters, which brings on recession and pressure for protectionism.

The level of protection also depends on who is enfranchised. Hall, Kao and Nelson (1998) find that after women got the vote in U.S. national elections in 1920, tariffs fell. Their explanation is that women purchased the families' consumption goods and blamed tariffs for raising prices, whereas men attributed to the tariff favorable impacts on factor rewards.

Finally, Gardner and Kimbrough (1992a, 1992b) document that, in the U.S., as revenue demands increased, first excise taxes then the income tax were enacted, and both times tariff levels were cut. Once the fixed costs of these two new taxes had been paid, it made sense to rely less on the use of tariffs.

6. Conclusion: the Dracula effect.

Self-serving special interests will always fight to protect themselves. What can economists and political scientists do to limit protectionism? Bhagwati (1988, 85) in a marvelous rhetorical flourish articulates what he calls the Dracula effect. Just as Dracula shrivels into nothingness when the morning sunlight hits him, “exposing evil to sunlight helps to destroy it.” Similarly, economists for a long time have been illuminating fallacies in protectionist reasoning and documenting the costs and unintended consequences of protectionism. It is only more recently that political economists have shed light on the role of the political process in generating protectionism. All of this analysis combines to convincingly demonstrate that protection is the costly product of a negative sum political game, rather than the product of a government benignly maximizing a social welfare function designed to put us somewhere on the maximal tradeoff between equity and efficiency.

F. Y. Edgeworth (1908), Keynes’ predecessor as editor of the *Economic Journal*, anticipated much of the public choice response to various models that justify protection when he wrote in response to Bickerdike’s exploration of the idea that the national advantage could be served by the optimum tariff :

Thus the direct use of the theory is likely to be small. But it is to be feared that its abuse will be considerable. It affords to unscrupulous advocates of vulgar Protection a particularly specious pretext for introducing the thin edge of the fiscal wedge. Mr. Bickerdike may be compared to a scientist who, by a new analysis, has discovered that strychnine may be administered in small doses with prospect of advantage in one or two more cases than was previously known; the result of this discovery may be to render the drug more easily procurable by those whose intention, or at least whose practice is not medicinal. ... Let us admire the skill of the analyst, but label the subject of his investigation POISON.

William H. Kaempfer
Professor of Economics
University of Colorado at Boulder

Edward Tower

Professor of Economics

Duke University

Thomas D. Willett

Horton Professor of Economics

Claremont Graduate University and Claremont McKenna College

References

- Baldwin, R. E. (1985). *Political economy of U.S. import policy*. Cambridge: MIT Press.
- Becker, G.S. (1983). A theory of competition among pressure groups for political influence. *The Quarterly Journal of Economics*. 98 (August):371-400.
- Bhagwati, J.N. (1980). Lobbying and welfare. *Journal of Public Economics*. 14 (December):355-363.
- Bhagwati, J.N. (1982). Directly unproductive, profit-seeking (DUP) activities, *Journal of Political Economy*. 90 (October):988-1002.
- Bhagwati, J.N. (1988). *Protectionism*. Cambridge: MIT Press.
- Blonigen, Bruce A. and Prusa, T.J. (2002). Antidumping. In Choi, K. and Harrigan, J. (2002).
- Cassing, J.H. and Hillman, A.E. (1985). Political influence motives and the choice between tariffs and quotas. *Journal of International Economics* 19 (November): 279-290.
- Choi, K. and Harrigan, J. (Eds.) (2002). *Handbook of International Economics*. Oxford: Basil Blackwell.
- Copeland, B., Tower, E. and Webb, M. (1989). Quota wars and tariff wars. *Oxford Economic Papers* 82 (October): 774-88.
- Dixit, A., Grossman, G.M. and Helpman, E. (1997). Common agency and coordination: General theory and application to government policy making. *Journal of Political Economy* 105 (August): 752-769; reprinted as chapter 1 of Grossman and Helpman (2002).
- Dutt, P. and Mitra, D. (2001). Endogenous Trade Policy Through Majority Voting: An Empirical Investigation. Manuscript.
- Edgeworth, F.Y. (1908). Appreciations of mathematical theories. *Economic Journal* 18 (December): 541-556.
- Ekelund, R. and Tollison (1981). *Mercantilism as a rent seeking society*. College Station: Texas A&M University Press.
- Finger, J.M. (1991). The GATT as an international discipline over trade restrictions: A public choice approach. In Vaubel, R. and Willett, T.D. (Eds.) *The political economy of*

international organizations: A public choice perspective, 125-141. Boulder: Westview Press.

Fisher, R., Gokcekus, O. and Tower, E. (2002). Stealing house votes at low prices for the Steel Import Quota Bill of 1999. Duke University Working Paper: <http://www.econ.duke.edu>.

Gardner, G.W. and Kimbrough, K. (1992a). Tax smoothing and tariff behavior in the United States. *Journal of Macroeconomics* 14 (Fall): 711-29.

Gardner, G.W. and Kimbrough, K. (1992b). Tax regimes, tariff revenues, and government spending. *Economica* 59 (February): 75-92.

Gawande, K. and Krishna, P. (forthcoming). The political economy of trade policy: Empirical approaches. In Choi and Harrigan (2002).

Gibbs, R., Gokcekus, O. and Tower, E. (2002). Is talk cheap? Buying congressional testimony with campaign contributions. Duke University Working Paper: <http://www.econ.duke.edu>.

Gokcekus, O. and Tower, E. (1989). Does trade liberalization benefit old and young alike? *Review of International Economics* 6 (February): 50-58.

Goldstein, J. (1993). *Ideas, interests and American trade policy.* Ithaca: Cornell University Press.

Grossman, G.M. and Helpman, E. (2002). *Interest groups and trade policy.* Princeton: Princeton University Press.

Hall, H.K., Kao, C. and Nelson, D. (1998). Women and tariffs: Testing the gender gap hypothesis in a Downs-Mayer political-economy model. *Economic Inquiry* 36 (2): 320-32.

Hansen, W.L. and Prusa, T.J. (1996). Cumulation and ITC decision making: The sum of the parts is greater than the whole. *Economic Inquiry* 34: 746-69.

Hansen, W.L. and Prusa, T.J. (1997). The economics and politics of trade policy: An empirical analysis of ITC Decision Making. *Review of International Economics* 5 (May): 230-45.

Hartigan, J.C. and Rogers, C. (forthcoming). Equity purchases by insiders and the filing of antidumping petitions. *Review of International Economics.*

Ikenberry, G.J., Lake, D. and Mastanduno, M. (Eds.) (1988). *The state and American foreign economic policy.* Ithaca: Cornell University Press.

Irwin, D. A. (1998). Changes in U.S. tariffs: The role of import prices and commercial policies. *American Economic Review* 88 (September): 1015-1026.

Irwin, D. A. (2002). Internal improvements and antibellum tariff politics. Dartmouth College working paper in progress.

Kaempfer, W.H. and Marks, S.V. (1993). The expected effects of trade liberalization: Evidence from U.S. congressional action on fast-track authority. *World Economy* 16 (November): 725-40.

Kaempfer, W.H. and Willett, T.D. (1989). Combining rent seeking and public choice theory in the analysis of tariffs versus quotas. *Public Choice* 56 (October): 77-86.

Kaempfer, W.H., Tower, E. and Willett, T.D. (1989) Performance-contingent protection. *Economics and Politics*. 1 (November):261-75.

Knetsch, Jack L. (1989). The endowment effect and evidence of nonreversible indifference curves. *American Economic Review* 79 (December): 1277-1284.

Krueger, A.O. (1974). The political economy of the rent seeking society. *American Economic Review* 64 (June): 291-303.

Krueger, A.O. (1983). *Trade and employment in developing countries: Volume 3 Synthesis and Conclusions*. Chicago: University of Chicago Press.

Magee, S. P., Brock, W.A. and Young, L. (1989). *Black hole tariffs and endogenous policy theory: Political economy in general equilibrium*. Cambridge: Cambridge University Press.

Markusen, J.R., Melvin, J.R., Kaempfer, W.H. and Maskus, K.E. (1995). *International trade: Theory and evidence*. Boston: McGraw-Hill.

McArthur, J. and Marks, S.V. (1998). Constituent interest versus legislator ideology: The role of political opportunity cost. *Economic Inquiry* 26 (July): 461-70.

Panagariya, A. and Rodrik, D. (1993). Political economy arguments for a uniform tariff. *International Economic Review* 34 (August): 685-704.

Pincus, Jonathan J. (1977). *Pressure groups and politics in antebellum tariffs*. New York: Columbia University Press.

Pincus, Jonathan J. (1980) Tariffs. *Encyclopedia of American Economic History, Vol. 1*. Scribner's 439-450.

Rodrik, D. (1985). Political economy of trade policy. In G.M. Grossman and K. Rogoff (Eds.), *Handbook of international economics, Vol. III*. Amsterdam: North Holland.

Rodrik, D. (1993). The positive economics of policy reform. *The American Economic Review, Papers and Proceedings* 83 (May): 356-361.

Rowley, C., Thorbecke, W. and Wagner, R. (1995). *Trade protection in the United States*. Cheltenham: Edward Elgar.

Shelling, T.C. (1984) *Choice and consequence: Perspectives of an errant economist*. Cambridge: Harvard University Press.

Takacs, W.E. (1981). Pressures for protectionism: An empirical analysis. *Economic Inquiry* 19 (4): 687-693.

Tosini, S.C. and Tower, E. (1987). The textile bill of 1985: The determinants of congressional voting patterns. *Public Choice* 54 (May): 19-25.

Tullock, G. (1967). The welfare cost of tariffs, monopoly and theft. *Western Economic Journal* 3 (June): 224-232.

Willett, T. D. (1995). *The public choice approach to international economic relations*. Fairfax: Center for Study of Public Choice.