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THE PRIMACY OF RENTS IN THE CHOICE OF THE MEANS OF PROTECTION

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Abstract

Protection can take various forms. With both means available, why are import quotas rather than tariffs used? We account for politically-created rents from import quotas and for the budgetary and political insignificance of tariff revenue in countries with developed tax bases. Quotas dominate politically when domestic markets are competitive and are also politically preferred if domestic producers share the quota rents and may be politically preferred even if the quota rents are obtained by others. The use of quotas reflects political culture with regard to rent creation. Quotas are also means of rent assignment for the conduct of foreign policy. Commitment to trade liberalization explains elimination of quotas and thereby quota rents first, directly or by conversion of quotas to tariffs.

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1. Introduction

Choice of protectionist policies requires choice of the means of protection. Tariffs provide revenue for the government budget and are not rent creating beyond the protectionist rents created for import-competing producers. There are other considerations. Under conditions of market uncertainty, the quantity of imports varies with tariffs but quotas offer means of predetermining the quantity of imports. Quotas are however less market-responsive. Tariffs allow imports at any time for those willing to pay the tariff. Import quotas also facilitate non-transparent protection (Anderson 1988, Deardorff and Stern 1997). The preference of the GATT and subsequent WTO has been in favor of tariffs. Trade liberalization has entailed direct elimination of quotas or often an initial liberalization stage of conversion of quotas to tariffs.[1]

A political-economy perspective can also be adopted and the question asked whether political self-interest suggests a preference for tariffs or quotas. We adopted such a political-economy perspective in a study some time ago (Cassing and Hillman 1985) using a point of departure the tariff-quota equivalence study of Bhagwati (1965, 1968). We followed Bhagwati in assuming that import quotas were competitively auctioned to provide budgetary revenue that paralleled the budgetary revenue provided by tariffs. Our innovation was the political-economy perspective that policy makers

[1] See Lawrence 1989). On the case, for example, of rice in Japan, see Cramer et al (1999).

chose trade policies in their own political self-interest rather than to maximize social welfare (as in Hillman 1982, 1989; Grossman and Helpman 1994, 2002). Bhagwati had shown that, with quota rights competitively auctioned for budgetary revenue, there was complete equivalence between tariffs and import quotas when the domestic import-competing industry was competitive. With the assumption retained of government revenue from competitive auction of quotas, we considered domestic monopoly in which the Bhagwati instrument-equivalence result did not hold and showed that the tariff was the politically superior instrument of protection if political-support motives dominated government budgetary revenue motives. If there were both objectives of political support and budgetary revenue, a quota would be chosen if the revenue motive dominated.

The reasoning or proof is as follows. In the absence of a revenue motive, the political-support function maximized by the political decision maker is $M[P, \pi(P)]$ where P is the domestic price of an import-competing good and $\pi(P)$ is industry profits. At any domestic price P determined by a given world price and a given tariff, π is greater under the tariff than the quota, because the quantity of competitive imports is necessarily less with the tariff than the quota. Consumers care only about P and not the policy means whereby P is established. Hence, to maximize political support, tariffs are politically preferred to quotas.[2]

With government revenue R politically valuable and equally so for tariff revenue or quota-auction proceeds, the government's objective function is $V[M[P, \pi(P), R]$. At any domestic price of import-competing output P, government revenue is greater with a quota than with a tariff. Whether the tariff or a quota is preferred therefore depends on a preferences regarding political support M and revenue R.

2. Two basic propositions

We now amend these past conclusions with two propositions (Hillman 2015):

(A1) Governments, at least in developed high-income economies, care little or not all about tariff revenue, which is a negligibly small part of financing the government budget and which from a political-support vantage has no value in not being subject to political assignment to private beneficiaries.

(A2) Governments or political decision makers, whether in high or low-income economies, benefit politically or possibly personally from political rent creation and rent sharing through creation and assignment of quota rents.

[2] Our conclusions are independent of whether tariffs were ad valorem or specific. In other circumstances, the form of the tariff can matter. See for example Lockwood and Wong (2000). Also, quotas are sometimes combined with tariffs, so that a tariff is levied on the quantity of imports permissible under the quota.

(A1) is contingent on the level of economic development. Low-income countries can continue to rely significantly on tariffs for government revenue. Even in low-income countries, government might be difficult to appropriate for private benefit. The attraction of quotas is consistent with the evidence that low-income countries are bastions of seeking (see for example Mabuku and Kiyemi 2015 on Africa).[3]

The rents indicated in (A2) can be directly politically assigned or could be contested. With direct assignment, a politically designated income transfer takes place. When rents are contested, there is a social loss from resources unproductively used in rent seeking (Tullock, 1967, 1989; Krueger 1974; Hillman and Katz 1984; Hillman, 2013). The rent seeking contest can be designed to benefit the political creators of the rents (Appelbaum and Katz, 1987; Gradstein and Konrad, 1999; Epstein and Nitzan 2015).[4]

Politically non-assignable and insignificant tariff revenue and politically assignable quota rents change the results of comparing tariffs and quotas as means of protection. Quota rents introduce quota holders as sources of political support. The quota holders might be the policy makers themselves or members of their families or associated business interests. In high-income countries,

[3] Baunsgaard and Keen (2005) study whether countries differentiated by income levels replaced revenues lost from trade liberalization. They found that revenue replacement depended on development levels, with low-income countries as a group not replacing lost revenues.

[4] Rent seeking for revenue from the government budget can take place (Park, Philippopoulos and Vassilatos (2005). The point is that tariff revenue is an insignificant small part of government revenue in high-income countries.

political culture (see Hillman and Swank 2000) constrains overtly visible monetary political gain and there is rather political exchange of political rent creation for political support. In either case, the quota rents make quotas the politically preferred instrument in competitive markets. A sufficient for quotas to be politically preferred when domestic markets are not competitive is that quota rents are assigned to the domestic producers whom the quota protects. The quota can however be politically preferred if domestic producers are not assigned the quota rents. Our focus on politically created quota rents explains the GATT and WTO preference for eliminating quotas first in the process of trade liberalization. Direct elimination of quotas or initial conversion of quotas to tariffs begins liberalization with the elimination of the means of protection that it is politically more costly to eliminate. It remains true that conversion of quotas to tariffs results in more transparent comparable protection.

3. Political choice of the means of protection: The competitive case

We view politically motivated policy makers as seeking to maximize political support. [5] We refer to political support although in principle the quota rents may provide direct monetary gain to the policy decision makers or to their families and associates. For any given domestic price *P* sustained through

[5] The arguments apply in principle to trade in services as well as goods. On trade in services, see Hoekman and Primo Braga (1997) and Francois and Hoekman (2010).

either a quota or tariff, we compare the political support achieved. The value of quota rents is $R_Q(P)=(P - P_W)Q$, where Q is the sum of quota licenses and P_W is a given world price. Consumers or voters care only about the domestic price P and not about how P is sustained. We subsequently change this assumption to account for public attitudes to political rent creation. Total profits are $\pi_T(P)$ with a tariff and $\pi_Q(P)$ with a quota. With tariff revenue having no political weight, political support with a tariff is

$$M^T = M^T(\pi_T(P), P).$$

With a quota, the rent creation through the quota is politically valuable and political support is:

$$M^Q = M^Q(\pi_Q(P), P, R_Q(P).$$

With perfect competition and free entry and exit, domestic firms' profits are zero. It follows that:

Proposition 1

With perfect competition, at any domestic price at which imports take place, a policy maker concerned with political support will always choose a quota over a tariff.

This contrasts with the tariff-quota instrument indifference in competitive markets in Bhagwati (1965, 1968).

4. Political choice of the means of protection: The non-competitive case

For the non-competitive case, we consider a monopoly. More generally, for any non-competitive market structure, we view domestic producers as confronting residual demand after subtraction of the quota Q from domestic demand. In such cases, and in particular a monopolized domestic industry, at any domestic price P at which imports take place, imports are greater with a quota than a tariff and domestic producers prefer the more protective tariff that results in higher profits (Cassing and Hillman 1985). The quota however provides politically assignable rents. Therefore:

Proposition 2

With monopoly or more generally with imperfect competition, the tariff is politically preferred if political support from domestic producers is valued more than political support from beneficiaries of quota rents; conversely, the quota is politically preferred if political support from beneficiaries of quota rents is valued more than political support of domestic producers.

The ambivalence is eliminated if the quota is assigned to domestic producers. Domestic producers maximize profits subject to costs of domestic production and the availability of imports under the quota. The option to use imports for domestic supply cannot decrease profits. Therefore:

Proposition 3

The quota is ambivalently politically preferred if domestic producers are assigned the quota.

A corollary of propositions 1 and 3 is:

Proposition 4

If benefits from quota rents dominate or when domestic producers are assigned the quota, trade liberalization is politically more costly when a quota is removed than when a tariff is removed at any equal domestic price sustained by the two means of protection.

5. Trade liberalization

An explanation for the GATT and WTO preference for elimination of quotas and conversion to quotas to tariffs has been that quota protection is non-transparent and so difficult to measure whereas comparisons of tariff levels can readily be made.[6] Our results predict that, in the process of trade liberalization, quotas will be eliminated first, because elimination of the politically more costly instrument of protection is a means of commitment when ongoing liberalization may be at the discretion of another subsequent government. If the quota rents benefit policy makers themselves or close affiliates and family, the principal benefit from protection may have disappeared after conversion of quotas to tariffs. Asymmetric liberalization with one country eliminating first tariffs and the quotas impedes full liberalization when a government judges the benefits from sustained quota rents greater than the benefits from ongoing liberalization.

We now introduce two periods. At the end of the two periods, trade between two countries is to have been bilaterally liberalized, by agreement of two governments before the beginning of the first period.[7] The preferred joint outcome for the two governments is thus "exchange of market access" (Hillman, Moser and Long 1995; Hillman and Moser, 1996), to provide mutual benefit for the two countries' export industries. The respective governments are inhibited from unilaterally assisting their export industries using export

[6] The transparency of tariffs for comparison assumes that tariff rates or levels are fully reflected in domestic firms' profit-maximizing prices. On unutilized or redundant tariffs, see Fishelson and Hillman (1979).

[7] We refer to two countries but trade liberalization through the GATT and the WTO has been multilateral through the most-favored-nation clause that stipulates that "concessions" or benefits given to one trading partner through market access are to be provided to all countries. The most-favored nation clause preempts opportunistic behavior in the granting of market access. See Ethier (2002).

subsidies because of WTO (or past GATT) illegality but can provide benefits for each other's export industries through reciprocal liberalization. The governments use both tariffs and quotas as means of protection. We assume symmetry between countries. The political loss form elimination of tariffs for governments A and B in time periods 1 and 2 is

$$L_j^i\left(T_j^i\right) \qquad i = A, B, j = 1,2.$$

The political loss from elimination of quotas is

$$\mathcal{L}_j^i\left(Q_j^i\right), \qquad i = A, B, j = 1,2.$$

With political benefits from quota rents dominating political benefits from protecting import-competing firms,

$$\mathcal{L}_j^i\left(Q_j^i\right) > L_j^i\left(T_j^i\right), \qquad i = A, B, j = 1,2.$$

For symmetry we assume equality of benefits across countries in the two time periods:

$$B_j^i\left(Q_j^i\right) = B_j^i\left(T_j^i\right) = B_j \qquad i = A, B, j = 1,2.$$

The incentive for reciprocal liberalization implies that

$$\sum_j B_j > \mathcal{L}_j^i\left(Q_j^i\right) + L_j^i\left(T_j^i\right), \qquad i = A, B, j = 1,2.$$

A government will not liberalize through either elimination of quotas or tariffs at time 2 if

$$B_j^i\left(Q_j^i\right) = B_j^i\left(T_j^i\right) = B_j < L_j^i\left(T_j^i\right) < \mathcal{L}_j^i\left(Q_j^i\right) \qquad i = A, B, j = 1,2.$$

Whether liberalization proceeds at time 2 depends on which instrument remains at that time to be eliminated. With the quota politically more costly to eliminate and with

$$L_j^i\left(T_j^i\right) < B_j < \mathcal{L}_j^i\left(Q_j^i\right) \qquad i = A, B, j = 1,2,$$

liberalization proceeds if the quota has been eliminated first but not if the tariff has been eliminated first.

In a democracy, governments in general honor previous governments' international commitments. Successor governments may nonetheless have different political preferences.[8]

There are prospectively four governments involved in reciprocal liberalization, one in each country in each period. Two governments in period 1 can agree on reciprocal exchange of market access but it is sufficient for one of two successor governments to block complete trade liberalization. If the benefit for each successor government a random variable, the likelihood that both successor governments proceed with liberalization is maximized with initial mutual elimination of quotas.

Whether losses for elimination of quotas exceed losses from elimination of tariffs is a matter of "governance". The choice of quotas to be eliminated first

[8] See Aidt and Hillman (2008) on corresponding circumstances of rent seeking with possible change of governments over time.

indicates that governments view each other as benefiting more from the creation of quota rents than from protection of import-competing industry.

We conclude:

Proposition 5

The sequence of elimination of quotas before tariffs is a commitment strategy that maximizes incentives of successor governments to proceed to full liberalization.

Replacement of quotas by tariffs was motivated by the greater transparency through measurement of tariffs. The important point from our political economy perspective is that, in converting quotas to tariffs, governments engage in the politically costly action of depriving quota holders of their rents.

6. Why are tariffs or quotas used?

In competitive import-competing industries, we should observe only quotas if policy makers value benefits from rent creation. With tariff revenue politically unimportant, the political incentive to use tariffs is only that, with domestic profits from monopoly or imperfect competition, domestic producers prefer a tariff to a quota that sustains the same domestic price when domestic producers have themselves not been assigned the quota rights. Domestic production is correlated with domestic employment and the tariff sustains higher domestic employment.[9] The use of a quota however raises the question of who will receive the quota rents. Tariffs avoid unproductive rent seeking because tariff revenue goes anonymously to the government budget. Quota rents are privileged gifts or self-created benefits. We have viewed consumers as caring only about the price at which they have access to a good. Consumers as voters may also respond to political opportunism in the creation and sharing of quota rents. Instrument choice then becomes a matter of the political culture. Given that political decision makers intend to restrict trade, do they choose to add to government revenue (even if the addition is negligible in the government budget) or do they choose to create rents that can be assigned for private benefit?

In the U.S. most quotas are on agricultural goods. The list is: Sugar and products with more than 65% sugar content, tobacco, peanuts and peanut butter, specific dairy products (e.g. powdered milk, baby formula), cotton, beef, animal feed, anchovies, wire rod, ethyl alcohol, olives, mandarin oranges, tuna, and brooms. By law, the quotas are assigned to domestic producers who "know" if the additional supply from imports is required in the domestic market. We conjecture that it would be politically difficult in the U.S. to assign quota rents to other than domestic producers. The EU has import quotas on steel, wood, textiles, footwear, and potassium chloride. For China, the

[9] Changes in employment themselves affect the political weight of industries and can lead to abrupt declines in protection. See Cassing and Hillman (1986).

following observations have been made regarding grain quotas: "The low-tariff quotas .. are allotted to state-owned and private firms in the world's top grain consumer. With Chines grain prices the highest in the world, these import allocations have become a cash cow for well-connected companies."[10] In another example, rents from import quotas on flour in Taiwan have been described by Ma (2007). Because of the rents, disputes can be expected over the quantity imported.[11] For Indonesia, we have the following observation: "Strict import quotas on Australian cattle have left the Indonesian marketplace short of beef and prices soaring at the busiest time of the year" – which we are to judge as a government policy mistake or successful rent creation.[12]

A form of benefit from use of quotas other than the creation and domestic assignment of rents is that quotas also allow assignment of rents to foreigners. More example, voluntary export restraint assign quota rents to foreign producers as compensation for denial of previously agreed market access (Hillman and Ursprung 1988). The motives for foreign rent assignment can be more directly. Quotas not only designate permissible quantities but can

[10] http://www.cnbc.com/id/102206077 (accessed June 22 2015).

[11] On import quotas and rice in Nigeria, see http://allafrica.com/stories/201501281489.html (accessed June 22 2015).

[12] http://www.smh.com.au/national/indonesians-short-on-beef-after-import-quotas-hurt-20120810-23zp6.html (accessed June 22 2015)

also designate the country of origin of imports, thereby providing a form of country and foreign-industry directed benefit.[13]

7. Conclusions

Even in high-income and ostensibly high-ethical locations, political decision makers have a comparative advantage in creation of rents in which they can share directly or convert to political support. Perhaps the most ready means of creating rents has been through import quotas. In terms of voter resistance, subject to economic literacy of the electorate, rents from import quotas are more subtle and more subject to framing as socially justified than monopoly rents. The framing for quota rents is aided by beneficiaries in the agricultural sector, who need support to "stay on the land" or for whom import quotas are justified by "food security". Tariffs could achieve these objectives and provide the government budget with revenue. We have revisited the question of the political choice between quotas and tariffs. In an early study, we adopted the assumption of the contemporary Bhagwati mainstream model in assuming that quotas and tariffs both yield government revenue. We departed however from the mainstream model in viewing economic policies as chosen to maximize

[13] It was estimated in 2015 that internal EU sugar prices would fall by 2017 fall by 22-23 percent as the consequence of elimination of the EU sugar import quota. See http://capreform.eu/eu-sugar-beet-prices-to-fall-by-22-23-when-quotas-eliminated/ (accessed 25 June 2015). There was resistance by the foreign beneficiaries of the sugar quota who declared that they were “deeply concerned with the sharp decline in the sugar prices” http://www.kaieteurnewsonline.com/2015/04/11/sugar-producers-urge-eu-to-delay-quota-abolition/ (accessed 25 June 2015).

political support rather than to maximize social welfare. Other than the changed government objective, we remained within the bounds of the Bhagwati equivalence theorems on effects of tariffs and quotas. We have now made allowance for the budgetary irrelevance of revenue from tariffs – the revenue is non-politically-assignable public money - whereas quotas create rents that can be significant in terms of private income. We have shown that quotas are politically preferred to tariffs when the domestic import-competing industry is competitive and, when there is imperfect competition or monopoly, the political choice between quotas and tariffs hinges on political valuation of policy benefits to domestic import-competing industry and quota holders. If domestic producers receive the quota, the quota is unambiguously politically preferred. The sequencing of elimination first of quotas in trade liberalization is consistent with quotas as the politically most beneficial policy instrument and therefore as the politically most costly to eliminate.

References

Aidt, Toke, Hillman, Arye L., 2008. Enduring rents. *European Journal of Political Economy* 24, 545-553.

Anderson, James, 1988. *The Relative Inefficiency of Quotas*. MIT Press, Cambridge MA.

Appelbaum, Eli and Eliakim Katz, 1987. Setting rents by seeking rents: The political economy of rent seeking. *The Economic Journal*, 97(367), 685-609. Reprinted in Roger D. Congleton, Arye L. Hillman and Kai A. Konrad (Eds.) (2008), *Forty Years of Research on Rent Seeking* 1 - *Theory of Rent Seeking*, Springer, Heidelberg, pp. 555-569.

Bhagwati, Jagdish N., 1965. On the equivalence of tariffs and quotas. In: Robert E. Baldwin et al. (Eds.), Trade, Growth and the Balance of Payments, Rand McNalley, Chicago IL, pp. 53-67.

Bhagwati, Jagdish N., 1968. More on the equivalence of tariffs and quotas. *American Economic Review* 58, 142-146.

Cassing, James H. and Arye L. Hillman, 1985. Political-influence motives and the choice between tariffs and quotas. *Journal of International Economics* 19, 279-290.

Cassing, James H. and Arye L. Hillman, 1986. Shifting comparative advantage and senescent industry collapse. *American Economic Review* 76, 516-523. Reprinted in: *The WTO and the Political Economy of Trade Policy*, Wilfred J. Ethier and Arye L. Hillman (Eds.), Edward Elgar, Cheltenham UK, 2008, pp. 516 – 523.

Cramer, Gail L. James M. Hansen and Eric J. Wailes, 1999. Impact of rice tariffication on Japan and the world rice market. *American Journal of Agricultural Economics*, *Proceedings Issue*, 81(5), 1149-1156.

Deardorff, Alan V. and Robert M. Stern, 1997. Measurement of non-tariff barriers. *OECD Economics Department Working Papers*, No. 179, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/568705648470

Epstein, Gil S. and Shmuel Nitzan, 2015. Contestable policies. In Roger D. Congleton and Arye L. Hillman (Eds.), 2015. *Companion to the Political Economy of Rent Seeking*, Edward Elgar, Cheltenham UK, pp. 53-72.

Ethier, Wilfred J., 2002. Unilateralism in a multilateral world. *Economic Journal*, **112**, 266–292. Reprinted in Wilfred J. Ethier and Arye L. Hillman (Eds.) (2008), *The WTO and the Political Economy of Trade Policy*, Edward Elgar, Cheltenham, UK, pp. 567–93.

Fishelson, Gideon and Arye L. Hillman, 1979, Domestic monopoly and redundant tariff protection. *Journal of International Economics* 9, 47-55.

Francois, Joseph and Bernard Hoekman. 2010. Services trade and policy. *Journal of Economic Literature* 43, 642-692.

Gradstein, Mark and Kai Konrad, 1999. Orchestrating rent-seeking contests, *Economic Journal* 109, 536-545. Reprinted in Roger D. Congleton, Arye L. Hillman and Kai A. Konrad (Eds.) (2008), *40 Years of Research on Rent Seeking*

1: Theory of Rent Seeking, Springer, Heidelberg, pp. 571-580.

Grossman, Gene M., and Elhanan Helpman, 1994. Protection for sale. *American Economic Review* 84, 833-850. Reprinted in Congleton, R.D., Hillman, A.L., Konrad, K.A. (Eds.), 2008, Forty Years of Research on Rent Seeking 2 – Applications: Rent Seeking in Practice, Springer, Heidelberg, 131-148.

Grossman, Gene M., and Elhanan Helpman, 2002. *Interest Groups and Trade Policy*. Princeton University Press, Princeton NJ.

Hillman, Arye L., 1982. Declining industries and political-support protectionist motives. *American Economic Review,* 72(2), 1180-1187. Reprinted in Wilfred J. Ethier and Arye L. Hillman (Eds.), *The WTO and the Political Economy of Trade Policy*, Edward Elgar, Cheltenham UK, pp. 43-50.

Hillman, Arye L. and Heinrich W. Ursprung, 1988**.** Domestic politics, foreign interests and international trade policy. *American Economic Review* 78, 729-745. Reprinted in: *The WTO and the Political Economy of Trade Policy*, Wilfred J. Ethier and Arye L. Hillman (Eds.), Edward Elgar, Cheltenham UK, 2008, pp. 99 -115.

Hillman, Arye L. and Peter Moser, 1996. Trade liberalization as politically optimal exchange of market access. In: Matthew Canzoneri, Wilfred J. Ethier, and Vittorio Grilli (Eds.), *The New Transatlantic Economy*, Cambridge University Press, New York, NY, pp. 295-312. Reprinted in: *The WTO and the Political Economy of Trade Policy*, Wilfred J. Ethier and Arye L. Hillman (Eds.), Edward Elgar, Cheltenham UK, 2008, pp. 290 – 307.

Hillman, Arye L., Peter Moser and Ngo Van Long, 1995. Modeling reciprocal trade liberalization: The political-economy and national-welfare perspectives. *Swiss Journal of Economics and Statistics*, September 1995, 131, 503-515.

Hillman, Arye L. and Otto Swank, 2000. Why political culture should be in the lexicon of economics. *European Journal of Political Economy* 16, 1 – 4.

Hillman, Arye L., 2013. Rent seeking. In Michael Reksulak,, Laura Razzolini,, William F. Shughart II (Eds.), *The Elgar Companion to Public Choice* (2nd Ed.), Edward Elgar, Cheltenham U.K., pp. 307-330.

Hillman, Arye L. 2015. Rents and international trade policy. In: Roger D. Congleton and Arye L, Hillman (Eds.), *Companion to the Political Economy of Rent Seekin*g, Edward Elgar, Cheltenham UK, pp. 187-202.

Hoekman, Bernard and Carlos A. Primo Braga, 1997. Protection and trade in services: a survey. *Open Economies Review* 8, 285-308.

Baunsgaard, Thomas and Michael Keen, 2005. Tax revenue and (or?) trade liberalization. *Journal of Public Economics* 94(9-10), 563-577.

Krueger, Anne O., 1974. The political economy of the rent-seeking society, *American Economic Review*, 64(3), 291–303. Reprinted in Roger D. Congleton, Arye L. Hillman and Kai A. Konrad (Eds.) (2008), *Forty*

Years of Research on Rent Seeking 2 – Applications: Rent Seeking in Practice, Springer, Heidelberg, pp. 151–63.

Lawrence, R., 1989. Protection: Is there a better way? *American Economic Review* 79, 118–126.

Lockwood, B., Wong, K.-Y., 2000. Specific and ad valorem tariffs are not equivalent in trade wars. *Journal of International Economics* 52, 183–195.

Ma, Tay-Cheng, 2007. Import quotas, price ceilings, and pricing behavior in Taiwan's flour industry. *Agribusiness* 23, 1-15.

Park, Hyun, Apostolis Philippopoulos and Vanghelis Vassilatos, 2005. Choosing the size of the public sector under rent seeking from state coffers. *European Journal of Political Economy* 21(4), 830-850.

Tullock, Gordon, 1967. The welfare costs of tariffs, monopolies and theft. *Western Economic Journal*, 5 (3): 224-332. Reprinted in Roger D. Congleton, Arye L. Hillman and Kai A. Konrad (Eds.) (2008), *Forty Years of Research on Rent Seeking 1 - Theory of Rent Seeking*, Springer, Heidelberg, pp. 45-53.

Tullock, Gordon, 1989. *The Economics of Special Privilege and Rent Seeking*, Kluwer Academic Publishers, Dordrecht.