The Political Economy of the Rent-Seeking Society

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In many market-oriented economies, government restrictions upon economic activity are pervasive facts of life. These restrictions give rise to rents of a variety of forms, and people often compete for the rents. Sometimes, such competition is perfectly legal. In other instances, rent seeking takes other forms, such as bribery, corruption, smuggling, and black markets.

It is the purpose of this paper to show some of the ways in which rent seeking is competitive, and to develop a simple model of competitive rent seeking for the important case when rents originate from quantitative restrictions upon international trade. In such a case 1) competitive rent seeking leads to the operation of the economy inside its transformation curve; 2) the welfare loss associated with quantitative restrictions is unequivocally greater than the loss from the tariff equivalent of those quantitative restrictions; and 3) competitive rent seeking results in a divergence between the private and social costs of certain activities. Although the analysis is general, the model has particular applicability for developing countries, where government interventions are frequently all-embracing.

A preliminary section of the paper is concerned with the competitive nature of rent seeking and the quantitative importance of rents for two countries, India and Turkey. In the second section, a formal model of rent seeking under quantitative restrictions on trade is developed and the propositions indicated above are established. A final section outlines some other forms of rent seeking and suggests some implications of the analysis.

I. Competitive Rent Seeking

A. *Means of Competition*

When quantitative restrictions are imposed upon and effectively constrain imports, an import license is a valuable commodity. It is well known that under some circumstances, one can estimate the tariff equivalents of a set of quantitative restrictions and analyze the effects of those restrictions in the same manner as one would the tariff equivalents. In other circumstances, the resource-allocational effects of import licensing will vary, depending upon who receives the license.[1]

It has always been recognized that there are *some* costs associated with licensing: paperwork, the time spent by entrepreneurs in obtaining their licenses, the cost of the administrative apparatus necessary to issue licenses, and so on. Here, the argument is carried one step further: in many circumstances resources are devoted to competing for those licenses.

The consequences of that rent seeking are examined below. First, however, it will be argued that rent-seeking activities are often competitive and resources are devoted to competing for rents. It is difficult, if not impossible, to find empirically observable measures of the degree to which rent seeking is competitive. Instead, some

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[1] This phenomenon is explored in detail in Bhagwati and Krueger.

mechanisms under which rent seeking is almost certain to be competitive are examined. Then other cases are considered in which it is less obvious, but perhaps equally plausible, that competition results.

Consider first the results of an import-licensing mechanism when licenses for imports of intermediate goods are allocated in proportion to firms' capacities. That system is frequently used, and has been analyzed for the Indian case by Jagdish Bhagwati and Padma Desai. When licenses are allocated in proportion to firms' capacities, investment in additional physical plant confers upon the investor a higher expected receipt of import licenses. Even with initial excess capacity (due to quantitative restrictions upon imports of intermediate goods), a rational entrepreneur may still expand his plant if the expected gains from the additional import licenses he will receive, divided by the cost of the investment, equal the returns on investment in other activities.[2] This behavior could be perfectly rational even if, for all entrepreneurs, the total number of import licenses will remain fixed. In fact, if imports are held constant as domestic income grows, one would expect the domestic value of a constant quantity of imports to increase over time, and hence installed capacity would increase while output remained constant. By investing in additional capacity, entrepreneurs devote resources to compete for import licenses.

A second sort of licensing mechanism frequently found in developing countries is used for imports of consumer goods. There, licenses are allocated *pro rata* in proportion to the applications for those licenses from importers-wholesalers. Entry is generally free into importing-wholesaling, and firms usually have U-shaped cost curves. The result is a larger-than-optimal number of firms, operating on the downward sloping portion of their cost curves, yet earning a "normal" rate of return. Each importer-wholesaler receives fewer imports than he would buy at existing prices in the absence of licensing, but realizes a sufficient return on those licenses he does receive to make it profitable to stay in business. In this case, competition for rents occurs through entry into the industry with smaller-than-optimally sized firms, and resources are used in that the same volume of imports could be efficiently distributed with fewer inputs if firms were of optimal size.

A third sort of licensing mechanism is less systematic in that government officials decide on license allocations. Competition occurs to some extent through both mechanisms already mentioned as businessmen base their decisions on expected values. But, in addition, competition can also occur through allocating resources to influencing the probability, or expected size, of license allocations. Some means of influencing the expected allocation—trips to the capital city, locating the firm in the capital, and so on—are straightforward. Others, including bribery, hiring relatives of officials or employing the officials themselves upon retirement, are less so. In the former case, competition occurs through choice of location, expenditure of resources upon travel, and so on. In the latter case, government officials themselves receive part of the rents.

Bribery has often been treated as a transfer payment. However, there is competition for government jobs and it is reasonable to believe that expected total remuneration is the relevant decision variable for persons deciding upon careers. Generally, entry into government service requires above-average educational at-

[2] Note that: 1) one would expect to find greater excess capacity in those industries where rents are higher; and 2) within an industry, more efficient firms will have greater excess capacity than less efficient firms, since the return on a given amount of investment will be higher with greater efficiency.

tainments. The human capital literature provides evidence that choices as to how much to invest in human capital are strongly influenced by rates of return upon the investment. For a given level of educational attainment, one would expect the rate of return to be approximately equated among various lines of endeavor. Thus, if there appear to be high official-plus-unofficial incomes accruing to government officials and higher education is a prerequisite for seeking a government job, more individuals will invest in higher education. It is not necessary that government officials earn the same total income as other college graduates. All that is necessary is that there is an excess supply of persons seeking government employment, or that highly educated persons make sustained efforts to enter government services. Competition takes place through attaining the appropriate credentials for entry into government service and through accepting unemployment while making efforts to obtain appointments. Efforts to influence those in charge of making appointments, of course, just carry the argument one step further back.

To argue that competition for entry into government service is, in part, a competition for rents does not imply that all government servants accept bribes nor that they would leave government service in their absence. Successful competitors for government jobs might experience large windfall gains even at their official salaries. However, if the possibility of those gains induces others to expend time, energy, and resources in seeking entry into government services, the activity is competitive for present purposes.

In all these license-allocation cases, there are means, legal and illegal, for competing for rents. If individuals choose their activities on the basis of expected returns, rates of return on alternative activities will be equated and, in that sense, markets will be competitive.[3] In most cases, people do not perceive themselves to be rent seekers and, generally speaking, individuals and firms do not specialize in rent seeking. Rather, rent seeking is one part of an economic activity, such as distribution or production, and part of the firm's resources are devoted to the activity (including, of course, the hiring of expediters). The fact that rent seeking and other economic activities are not generally conducted by separate economic entities provides the motivation for the form of the model developed below.

B. *Are Rents Quantitatively Important?*

Granted that rent seeking may be highly competitive, the question remains whether rents are important. Data from two countries, India and Turkey, suggest that they are. Gunnar Myrdal believes India may "... on the balance, be judged to have somewhat less corruption than any other country in South Asia" (p. 943). Nonetheless, it is generally believed that "corruption" has been increasing, and that much of the blame lies with the proliferation of economic controls following independence.[4]

Table 1 presents crude estimates, based on fairly conservative assumptions of the value of rents of all sorts in 1964. One important source of rents—investment licensing—is not included for lack of any valid basis on which to estimate its value. Many smaller controls are also excluded. Nonetheless, it is apparent from Table 1 that

[3] It may be objected that illegal means of competition may be sufficiently distasteful that perfect competition will not result. Three comments are called for. First, it requires only that enough people at the margin do not incur disutility from engaging in these activities. Second, most lines of economic activity in many countries cannot be entered without some rent-seeking activity. Third, risks of detection (especially when bribery is expected) and the value judgments associated with illegal activities differ from society to society. See Ronald Wraith and Edgar Simpkins.

[4] Santhanam Committee, pp. 7–8.

TABLE 1—ESTIMATES OF VALUE OF RENTS: INDIA, 1964

Source of Rent	Amount of Rent (Rs. million)
Public investment	365
Imports	10,271
Controlled commodities	3,000
Credit rationing	407
Railways	602
Total	14,645

Sources:

1) Public investment: The Santhanam Committee, pp. 11–12, placed the loss in public investment at *at least* 5 percent of investment. That figure was multiplied by the average annual public investment in the *Third Five Year Plan.*

2) Imports: The Santhanam Committee, p. 18, stated that import licenses were worth 100 to 500 percent of their face value. Seventy-five percent of the value of 1964 imports was used here as a conservative estimate.

3) Controlled commodities: These commodities include steel, cement, coal, passenger cars, scooters, food, and other price—and/or distribution-controlled commodities, as well as foreign exchange used for illegal imports and other unrecorded transactions. The figure is the lower bound estimate given by John Monteiro, p. 60. Monteiro puts the upper bound estimate at Rs. 30,000 billion, although he rejects the figure on the (dubious) ground that notes in circulation are less than that sum.

4) Credit rationing: The bank rate in 1964 was 6 percent; Rs. 20.3 billion of loans were outstanding. It is assumed that *at least* an 8 percent interest rate would have been required to clear the market, and that 3 percent of bank loans outstanding would be equivalent to the present value of new loans at 5 percent. Data source: Reserve Bank of India, Tables 534 and 554.

5) Railways: Monteiro, p. 45, cites commissions of 20 percent on railway purchases, and extra-official fees of Rs. 0.15 per wagon and Rs. 1.4 per 100 maunds loaded. These figures were multiplied by the 1964 traffic volume; 203 million tons of revenue-paying traffic originated in that year. Third plan expenditure on railroads was Rs. 13,260 million. There were 350,000 railroad goods wagons in 1964–65. If a wagon was loaded once a week, there were 17,500,000 wagons of freight. At Rs. 0.15 per load, this would be Rs. 2.6 million; 100 maunds equal 8,228 pounds so at 1.4 Rs. per 100 maunds, Rs. 69 million changed hands; if one-fifth of railroad expenditures were made in 1964–65, Rs. 2652 million was spent in 1964; at 20 percent, this would be Rs. 530 million, for a total of Rs. 602 million.

import licenses provided the largest source of rents. The total value of rents of Rs. 14.6 billion contrasts with Indian national income of Rs. 201 billion in 1964. At 7.3 percent of national income, rents must be judged large relative to India's problems in attempting to raise her savings rate.

For Turkey, excellent detailed estimates of the value of import licenses in 1968 are available.[5] Data on the c.i.f. prices of individual imports, their landed cost (c.i.f. price plus all duties, taxes, and landing charges), and wholesale prices were collected for a sizeable sample of commodities representing about 10 percent of total imports in 1968. The c.i.f. value of imports in the sample was TL 547 million and the landed cost of the imports was TL 1,443 million. The value at the wholesale level of these same imports was TL 3,568 million. Of course, wholesalers incur some handling, storage, and transport costs. The question, therefore, is the amount that can be attributed to normal wholesaling costs. If one assumes that a 50 percent markup would be adequate, then the value of import licenses was TL 1,404 million, or almost three times the c.i.f. value of imports. Imports in 1968 were recorded (c.i.f.) as 6 percent of national income. On the basis of Aker's data, this would imply that rents from import licenses in Turkey in 1968 were about 15 percent of *GNP*.

Both the Indian and the Turkish estimates are necessarily somewhat rough. But they clearly indicate that the value of import licenses to the recipients was sizeable. Since means were available of competing for the licenses, it would be surprising if competition did not occur for prizes that large. We turn, therefore, to an examination of the consequences of competitive rent seeking.

[5] I am indebted to Ahmet Aker of Robert College who kindly made his data available to me. Details and a description of the data can be found in my forthcoming book.

II. The Effects of Competitive Rent Seeking

The major proposition of this paper is that competitive rent seeking for import licenses entails a welfare cost in addition to the welfare cost that would be incurred if the same level of imports were achieved through tariffs. The effects of tariffs upon production, trade, and welfare are well known, and attention is focussed here upon the additional cost of competitive rent seeking. A simple model is used to develop the argument. Initially, free trade is assumed. Then, a tariff or equivalent import restriction is introduced. Finally, an equal import restriction with competitive rent seeking is examined.

A. *The Basic Model*

Two commodities are consumed by the country under investigation: food and consumption goods. Food is produced domestically and exported. Consumption goods are imported. Distribution is a productive activity whereby food is purchased from the agricultural sector, exported, and the proceeds are used to import consumption goods which are sold in the domestic market. Labor is assumed to be the only domestic factor of production.[6] It is assumed that the country under consideration is small and cannot affect its international terms of trade. Physical units are selected so that the fixed international prices of both goods are unity.

The agricultural production function is

$$A = A(L_A) \qquad A' > 0,\ A'' < 0 \tag{1}$$

where A is the output of food and L_A is the quantity of labor employed in agriculture. The sign of the second derivative reflects a diminishing marginal physical product of labor in agriculture, due, presumably, to fixity in the supply of land.

The level of distribution output, D, is defined to equal the level of consumption-goods imports, M:

$$D = M \tag{2}$$

One unit of distributive services entails exchanging one unit of imports for food with the agricultural sector at the domestic terms of trade, and exporting the food in exchange for imports at the international terms of trade. Constant returns to scale are assumed for the distribution activity; one unit of distribution requires k units of labor. Total labor employed in distribution, L_D, is

$$L_D = kD \tag{3}$$

A distribution charge of p_D per unit is added to the international price of imports:

$$p_M = 1 + p_D \tag{4}$$

where p_M is the domestic price of imports. The domestic price of food is assumed to equal its unit international price.[7]

Society's demand for imports depends upon the domestic price of imports and total income generated in agriculture:[8]

$$M = M(p_M, A) \tag{5}$$

where $\partial M/\partial p_M < 0$ and $\partial M/\partial A > 0$. Demand decreases with increases in the price of imports, and increases with increases in agricultural output (income). Equation (5) is derived from micro utility maximization with the assumption that farmers, distributors, and rent seekers all have the same consumption behavior. Domestic

[6] Labor could be regarded as a composite domestic factor of production. Extensions to two or more factors would complicate the analysis, but would not alter its basic results.

[7] These assumptions establish a domestic numeraire. The real analysis would be unaffected by proportional changes in the domestic prices.

[8] Food and imports are consumed. But, by choice of food as the numeraire (see equation (6)) and the assumed constancy of international prices, agricultural output serves as a measure of income.

food consumption, F, is simply the quantity not exported:

$$F = A - M \tag{6}$$

Since the fixed international terms of trade equal unity, food exports equal consumption goods imports.

Finally, it is assumed that the economy under consideration has a fixed labor supply, $\bar{L}$:

$$\bar{L} = L_A + L_D + L_R \tag{7}$$

where L_R is the quantity of labor engaged in rent seeking.

B. *Free Trade*

Under free trade, there is free entry into both agriculture and distribution and competition equates the wage in the two activities:

$$A' = p_D/k \tag{8}$$

Equations (1) to (8) constitute the free-trade system. These eight equations contain the eight variables A, M, D, F, L_A, L_D, p_M, and p_D. Since there is no rent seeking under free trade, $L_R \equiv 0$.

It is easily established that free trade is optimal in the sense that the domestic price ratio under free trade equals the marginal rate of transformation between food consumption and imports. The consumption possibility locus is obtained by substituting into (6) from (1) and (7)

$$F = A(\bar{L} - kM) - M$$

The locus has a marginal rate of transformation greater than one:

$$\frac{-dF}{dM} = kA' + 1 > 1 \tag{9}$$

which reflects the positive distribution cost of substituting imports for food consumption. The locus is concave:

$$\frac{d^2F}{dM^2} = k^2A'' < 0$$

since $A'' < 0$, which follows from diminishing returns in food production. Substituting from (8) into (9),

$$\frac{-dF}{dM} = 1 + p_D$$

which establishes the aforementioned equality.

A free-trade solution is depicted in Figure 1. Domestic food consumption and import consumption are measured along OF and OM, respectively. The consumption possibility locus is $\hat{F}\hat{M}$. At the point $\hat{F}$ no imports are consumed and hence there is no distribution. If distribution were costless, society could choose its consumption point from the line $\hat{F}A$. However, to consume one unit of import requires exchanging one unit of food *and* withdrawing k workers from agriculture to provide the requisite distributive services. With diminishing marginal product of labor in agriculture, the cost of additional imports in terms of foregone food production rises. Thus, the price of distribution, and hence the domestic price of imports, increases in moving northwest from $\hat{F}$. The consump-

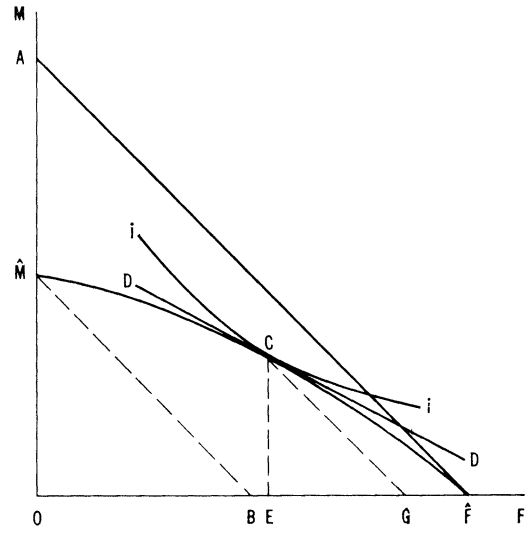

FIGURE 1. FREE TRADE

tion point $\hat{M}$ has OB food exchanged for $O\hat{M}$ of imports. The distance $\hat{F}B$ is the agricultural output foregone to distribute $O\hat{M}$ imports.

If society's preferences are given by the indifference curve ii, point C is optimal. The price of distribution is reflected in the difference between the slope of $\hat{F}A$ and the slope of DD at C. At the point C, OG food would be produced, with EG $(=EC)$ exported, and the rest domestically consumed.

C. *A Tariff or an Import Restriction Without Rent Seeking*

Consider now a case in which there is a restriction upon the quantity of imports

$$M = \overline{M} \tag{10}$$

where $\overline{M}$ is less than the import quantity that would be realized under free trade. Since entry into distribution is now limited, the competitive wage equality (8) will no longer hold. The relevant system contains (1) to (7) and (10). The variables are the same as in the free-trade case and again $L_R=0$. The system may be solved sequentially: given (10), D follows from (2), L_D from (3), L_A from (7), A from (1), F from (6), p_M from (5), and p_D from (4). Since equations (1), (6), and (7) remain intact, the solution for this case is also on the consumption possibility locus.

It is useful to establish the directions of change for the variables following a switch from free trade to import restriction. The reduced import level will reduce the labor employed in distribution and increase the labor force in agriculture. Diminishing returns will reduce the agricultural wage. The domestic price of imports, the distributive margin, and the wage of distributors will increase. Distributors will earn a rent in the sense that their wage will exceed the wage of those engaged in agriculture.

In the absence of rent seeking, a tariff and a quantitative restriction are equivalent[9] aside from the resultant income distribution. Under a quantitative restriction the distributive wage is higher than the agricultural. If instead there were an equivalent tariff with redistribution of the proceeds, the marginal product of labor in agriculture would be unchanged, but agricultural workers would benefit by the amount of tariff proceeds redistributed to them whereas traders' income would be lower. Since the allocation of labor under a tariff and quantitative restriction without rent seeking is the same and domestic prices are the same, the only difference between the two situations lies in income distribution.

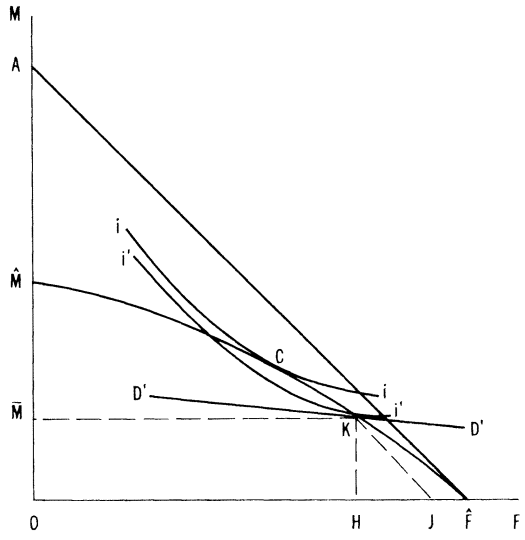

FIGURE 2. IMPORT RESTRICTION WITHOUT RENT SEEKING

The solution under a quantitative restriction is illustrated in Figure 2, where $\hat{F}\hat{M}$ is again the consumption possibility locus and C the free-trade solution. With a quantitative restriction on imports in the amount $O\overline{M}$, the domestic prices of

[9] The change in the price of the import from the free-trade solution is the tariff equivalent of the quantitative restriction described here.

imports, and hence of distribution, rise from free trade to import restriction. Food output (OJ) and domestic consumption of food increase, and exports decline to HJ ($=OM$). The indifference curve $i'i'$ lies below ii (and the point C), and the welfare loss may be described by the consumption and production cost measure given by Harry Johnson.

The wage rate in distribution unequivocally rises for a movement from free trade to a quantitative restriction. The total income of distributors will increase, decrease, or remain unchanged depending upon whether the proportionate increase in p_D is greater than, less than, or equal to the absolute value of the proportionate decrease of imports. For the moment, let p_D, p_M, and M represent free-trade solution values, and let p_D^*, p_M^*, and $\overline{M}$ represent import-restriction solution values. The total arc elasticity of demand for imports for the interval under consideration, η, is

$$\eta = \frac{-(\overline{M} - M)}{\overline{M} + M} \cdot \frac{p_M^* + p_M}{p_M^* - p_M} \tag{11}$$

Total expenditures on imports will increase, decrease, or remain unchanged as η is less than one, greater than one, or equal to one. The total income of distributors will increase if

$$p_D^* \overline{M} > p_D M$$

Multiplying both sides of this inequality by $(p_M^* + p_M)/(p_M^* - p_M)$, substituting from (11), and using (4),

$$1 + 2/(p_D^* + p_D) > \eta \tag{12}$$

Hence, distributors' total income can increase even if the demand for imports is price elastic.[10] The smaller is the free-trade distributive markup, the more likely it is that the distributors' total income will increase with a curtailment of imports. The reason is that an increase in the domestic price of imports results in a proportionately greater increase in the price of distribution.

D. *An Import Restriction with Competitive Rent Seeking*

In the import-restriction model just presented, the wage in distribution p_D/k exceeds the wage in agriculture A'. Under this circumstance, it would be surprising if people did not endeavor to enter distribution in response to its higher return. Resources can be devoted to rent seeking in all the ways indicated in Section IA. This rent-seeking activity can be specified in a number of different ways. A simple and intuitively plausible specification is that people will seek distributive rents until the average wage in distribution and rent seeking equals the agricultural wage:[11]

$$A' = \frac{p_D \overline{M}}{L_D + L_R} \tag{13}$$

One can regard all distributors and rent seekers as being partially engaged in each activity or one can think of rent seekers as entering in the expectation of receiving import licenses. In the latter case, the final solution classifies the successful seekers in L_D and the unsuccessful ones in L_R. Equation (13) implies risk neutrality in this circumstance.

The model for import restriction with rent seeking contains the same equations,

[10] Proof of (12) uses the step that $p_D^* \overline{M} > p_D M$ implies $(p_D^* - p_D)/(p_D^* + p_D) > -(\overline{M} - M)/(\overline{M} + M)$. Note that in the continuous case, (12) reduces to $1 + 1/p_D > \eta$.

[11] As an alternative, the distributive production function (3) can be altered to treat all persons competing for import licenses as distributors so that L_D also encompasses L_R and $A' = p_D \overline{M}/L_D$. Another alternative is to introduce a rent-seeking activity distinct from distribution with a wage determined from total rents $(p_D - A'k)\overline{M}/L_R$, and require that this wage equal the wages in distribution and agriculture. These specifications give results equivalent to those that follow from (13).

(1) to (7) and (10), and the same variables as the model for import restrictions without rent seeking. In addition, the new model contains (13) and the introduction of L_R as a variable. The essential factor of rent seeking is that L_R becomes positive.

Let us start with a solution for an import restriction without rent seeking and ask what happens to the values of the variables when rent seeking is introduced. By assumption $M=\overline{M}$ is unchanged, so that L_D is unchanged. Therefore, $dL_A = -dL_R$, because the labor that enters rent seeking can only come from agriculture. Substituting into the total differential of (1) and using (6),

$$dF = dA = -A'dL_R < 0 \tag{14}$$

Agricultural production and food consumption are reduced by the introduction of rent seeking. Since the import level remains unchanged, rent seeking entails a welfare loss beyond that for an import restriction without rent seeking. The concavity of the agricultural production function results in a food loss that is less than proportional to decrements in L_A. Differentiating (5) totally,

$$0 = M_1 dp_M + M_2 dA \tag{15}$$

where M_1 and M_2 are the partial derivatives of (5) with respect to p_M and A, respectively. Solving (15) for dp_M, and substituting from (4) and (14),

$$dp_D = dp_M = \frac{M_2}{M_1} A'dL_R < 0 \tag{16}$$

since $M_1<0$ and $M_2>0$. The domestic cost of imports will be lower under rent-seeking competition. This follows from the decrease in the consumption of food relative to imports.

The results of (14) and (16) are not dependent upon the particular form of the equilibrium of the labor market. They hold for any specification of competitive rent seeking. Equation (13) serves to determine particular values for L_R and other variables of the system. The mere existence of competitive rent seeking is enough to determine the directions of change of the variables.

The above results are sufficient to indicate that, for any given level of import restrictions, competition among rent seekers is clearly inferior to the tariff equivalent of the restrictions, in that there could be more food consumed with no fewer imports under the latter case than the former. To the extent that rent seeking is competitive, the welfare cost of import restrictions is equal to the welfare cost of the tariff equivalent *plus the additional cost of rent-seeking activities*. Measurement of that excess cost is considered below.

The tariff-equivalent and rent-seeking equilibria are contrasted in Figure 3. Equilibrium under rent seeking will be at some point such as L, with the same consumption of imports, but smaller production and consumption of food than occurs under a tariff. The points K and C are the tariff-equivalent and free-trade equilibria, respectively. The line $D'D'$ cor-

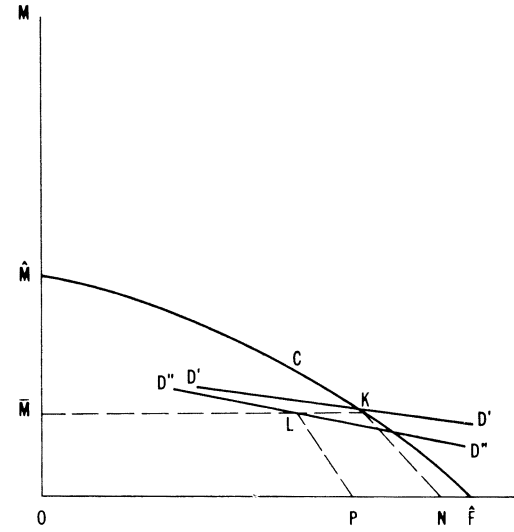

FIGURE 3. RENT-SEEKING IMPORT RESTRICTION

responds to the domestic price of imports in Figure 2, and the steeper line $D''D''$ corresponds to the lower domestic price of imports under competitive rent seeking.

So far, it has been shown that for any given level of import restriction, a tariff is Pareto-superior to competitive rent seeking, and the properties of rent-seeking equilibrium have been contrasted with those of the tariff-equivalent case in the absence of competition for the rents. A natural question is whether anything can be said about the properties of rent-seeking equilibrium in contrast to those of a free-trade equilibrium, which is, after all, the optimal solution. It has been seen that the number of persons engaged in distribution declines from free trade to import restriction without rent seeking, and increases as one goes from that situation to competition for import licenses. Likewise, agricultural output increases between free trade and the tariff-equivalent case, and declines between that and rent seeking. The question is whether any unambiguous signs can be placed on the direction of these changes between free trade and rent seeking and, in particular, is it possible that society might produce and consume less of both goods under rent seeking than under free trade?

The answer is that if inequality (12) is satisfied, the absolute number of persons (L_D+L_R) in distribution will increase going from a free-trade to a rent-seeking equilibrium. If import demand is more elastic, the number of persons in distribution will decline. Contrasted with a free-trade equilibrium, there would be less agricultural output *and* fewer imports when inequality (12) holds. If, with import restriction, the income from distribution $p_D^*\overline{M}$ is greater than distributors' income at free trade, more persons will be employed in distribution-cum-rent seeking with import restriction than are employed under free trade.

E. *Measuring the Welfare Loss from Rent Seeking*

A tariff has both production and consumption costs, and it has already been shown that rent seeking entails costs in addition to those of a tariff. Many forms of competition for rents, however, are by their nature difficult to observe and quantify and one might therefore question the empirical content of the result so far obtained.

Fortunately, there is a way to estimate the production cost of rent seeking. That cost, in fact, is equal to the value of the rents. This can be shown as follows. The rent per import license, r, is:

$$r = p_D - kA' \tag{17}$$

This follows because the labor required to distribute one unit of imports is k, which could be used in agriculture with a return A'. Note that at free trade r equals zero. A distributor could efficiently distribute an import and earn his opportunity cost in agriculture with zero rent. The total value of rents, R, with competitive rent seeking is thus the rent per unit of imports times the amount imported.

$$R = r\overline{M} = (p_D - kA')\overline{M} \tag{18}$$

Using (3) and (13),

$$\begin{aligned} R &= \left(p_D - \frac{kp_D\overline{M}}{L_D + L_R}\right)\overline{M} \\ &= p_D\left(1 - \frac{L_D}{L_D + L_R}\right)\overline{M} \\ &= \frac{p_D\overline{M}L_R}{L_D + L_R} \end{aligned} \tag{19}$$

Thus the total value of rents reflects the agricultural wage (A') times the number of rent seekers.

The value of rents reflects the value (at current prices) of the domestic factors of production which could be extracted from the economy with no change in the final

goods and services available for society's utilization. Thus, if the value of rents is known, it indicates the volume of resources that could be transferred out of distribution and into other activities, with no loss of distributive services from an initial position of rent-seeking activity. The estimates of rents in India and Turkey, therefore, may be interpreted as the deadweight loss from quantitative restrictions in addition to the welfare cost of their associated tariff equivalents if one believes that there is competition for the rents.

The value of the rents overstates the increase in food output and consumption that could be attained with a tariff to the extent that the marginal product of labor in agriculture is diminishing, since the equilibrium wage will rise between the tariff and the competitive rent-seeking situation. In the case of a constant marginal product of labor in alternative uses, the value of rents will exactly measure foregone output.

F. *The Implications of Rent Seeking for Trade Theory*

Recognition of the fact of rent seeking alters a variety of conclusions normally obtained in the trade literature and examination of such cases is well beyond the scope of this paper. A few immediately derivable results are worth brief mention, however.

First, an import prohibition might be preferable to a nonprohibitive quota if there is competition for licenses under the quota. This follows immediately from the fact that a prohibition would release resources from rent seeking and the excess cost of domestic production might be less than the value of the rents. Second, one could not, in general, rank the tariff-equivalents of two (or more) quotas, since the value of rents is a function of both the amount of rent per unit (the tariff equivalent) and the volume of imports of each item.[12] Third, it has generally been accepted that the more inelastic domestic demand the less is likely to be the welfare cost of a given tariff. For the quota-cum-rents case, the opposite is true: the more price inelastic is demand, the greater will be the value of rents and the greater, therefore, the deadweight loss associated with rent seeking. Fourth, it is usually believed that competition among importers will result in a better allocation of resources than will a monopoly. If rent seeking is a possibility, however, creating a monopoly position for one importer will generally result in a higher real income if not in a preferable income distribution for society. Finally, devaluation under quantitative restrictions may have important allocation effects because it diminishes the value of import licenses, and hence the amount of rent-seeking activity, in addition to its effects upon exports.

III. Conclusions and Implications

In this paper, focus has been on the effects of competition for import licenses under a quantitative restriction of imports. Empirical evidence suggests that the value of rents associated with import licenses can be relatively large, and it has been shown that the welfare cost of quantitative restrictions equals that of their tariff equivalents plus the value of the rents.

While import licenses constitute a large and visible rent resulting from government intervention, the phenomenon of rent seeking is far more general. Fair trade laws result in firms of less-than-optimal size. Minimum wage legislation generates equilibrium levels of unemployment above the optimum with associated deadweight losses, as shown by John Harris and

[12] I am indebted to Bhagwati for pointing out this implication.

Michael Todaro, and Todaro. Ceilings on interest rates and consequent credit rationing lead to competition for loans and deposits and/or high-cost banking operations. Regulating taxi fares affects the average waiting time for a taxi and the percent of time taxis are idle, but probably not their owners' incomes, unless taxis are also licensed. Capital gains tax treatment results in overbuilding of apartments and uneconomic oil exploration. And so on.

Each of these and other interventions lead people to compete for the rents although the competitors often do not perceive themselves as such. In each case there is a deadweight loss associated with that competition over and above the traditional triangle. In general, prevention of that loss can be achieved only by restricting entry into the activity for which a rent has been created.

That, in turn, has political implications. First, even if they *can* limit competition for the rents, governments which consider they must impose restrictions are caught on the horns of a dilemma: if they do restrict entry, they are clearly "showing favoritism" to one group in society and are choosing an unequal distribution of income. If, instead, competition for the rents is allowed (or cannot be prevented), income distribution may be less unequal and certainly there will be less appearance of favoring special groups, although the economic costs associated with quantitative restrictions will be higher.

Second, the existence of rent seeking surely affects people's perception of the economic system. If income distribution is viewed as the outcome of a lottery where wealthy individuals are successful (or lucky) rent seekers, whereas the poor are those precluded from or unsuccessful in rent seeking, the market mechanism is bound to be suspect. In the United States, rightly or wrongly, societal consensus has been that high incomes reflect—at least to some degree—high social product. As such, the high American per capita income is seen as a result of a relatively free market mechanism and an unequal distribution is tolerated as a by-product. If, instead, it is believed that few businesses would survive without exerting "influence," even if only to bribe government officials to do what they ought in any event to do, it is difficult to associate pecuniary rewards with social product. The perception of the price system as a mechanism rewarding the rich and well-connected may also be important in influencing political decisions about economic policy. If the market mechanism is suspect, the inevitable temptation is to resort to greater and greater intervention, thereby increasing the amount of economic activity devoted to rent seeking. As such, a political "vicious circle" may develop. People perceive that the market mechanism does not function in a way compatible with socially approved goals because of competitive rent seeking. A political consensus therefore emerges to intervene further in the market, rent seeking increases, and further intervention results. While it is beyond the competence of an economist to evaluate the political impact of rent seeking, the suspicion of the market mechanism so frequently voiced in some developing countries may result from it.

Finally, all market economies have some rent-generating restrictions. One can conceive of a continuum between a system of no restrictions and a perfectly restricted system. With no restrictions, entrepreneurs would seek to achieve windfall gains by adopting new technology, anticipating market shifts correctly, and so on. With perfect restrictions, regulations would be so all-pervasive that rent seeking would be the only route to gain. In such a system, entrepreneurs would devote all their time and resources to capturing windfall rents.

While neither of these extreme types could ever exist, one can perhaps ask whether there might be some point along the continuum beyond which the market fails to perform its allocative function to any satisfactory degree. It will remain for further work to formalize these conjectures and to test their significance. It is hoped, however, that enough has been said to stimulate interest and research on the subject.

REFERENCES

J. Bhagwati, "On the Equivalence of Tariffs and Quotas," in his *Trade, Tariffs and Growth,* London 1969.

——— and P. Desai, *Planning for Industrialization: A Study of India's Trade and Industrial Policies Since 1950,* Cambridge 1970.

——— and A. Krueger, *Foreign Trade Regimes and Economic Development: Experience and Analysis,* New York forthcoming.

J. R. Harris and M. P. Todaro, "Migration, Unemployment, and Development: A Two-Sector Analysis," *Amer. Econ. Rev.,* Mar. 1970, *60,* 126–42.

H. G. Johnson, "The Cost of Protection and the Scientific Tariff," *J. Polit. Econ.,* Aug. 1960, *68,* 327–45.

A. Krueger, *Foreign Trade Regimes and Economic Development: Turkey,* New York 1974.

J. B. Monteiro, *Corruption,* Bombay 1966.

G. Myrdal, *Asian Drama,* Vol. III, New York 1968.

M. P. Todaro, "A Model of Labor Migration and Urban Employment in Less Developed Countries," *Amer. Econ. Rev.,* Mar. 1969, *59,* 138–48.

R. Wraith and E. Simpkins, *Corruption in Developing Countries,* London 1963.

Government of India, Planning Commission, *Third Five Year Plan,* New Delhi, Aug. 1961.

Reserve Bank of India, *Report on Currency and Finance,* 1967–68.

Santhanam Committee, *Report on the Committee on Prevention of Corruption,* Government of India, Ministry of Home Affairs, New Delhi 1964.