

Why the Rush to Free Trade? Democracy and Trade Policy in the Developing Countries.

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Abstract: Rising international trade flows are a primary component of globalization. The liberalization of trade policy in many developing countries has helped foster the growth of these flows. Concurrent with this rush to free trade, there has been a global movement toward democracy. We argue that these two trends are related: democratization of the political system reduces the ability of governments to use trade barriers as a strategy for building political support. Our model presents an abstract stylization showing why political leaders in labor rich countries may prefer lower trade barriers as democracy increases. We provide empirical evidence to support our claim through econometric analysis of the developing countries from 1970-1999. Democracy seems to be associated for these countries with trade liberalization. Globalization may be fostered by democratization.

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I. Introduction:

Since the 1970s, globalization has advanced broadly. Some four billion people, roughly 66% of the world's population, have joined the world economy over the past 25 years as part of the increasing integration of more and more countries into the world trading system. Declining trade barriers have contributed significantly to this expansion of world trade. Countries across the globe--ones as diverse as the Philippines, India, Mexico, Poland, Chile, Turkey, Ghana, and Morocco-- have all chosen to liberalize unilaterally their trade policies. Among the developing countries, this "rush to free trade" gathered momentum in the mid-1980s (Rodrik 1994). As the International Monetary Fund (IMF) pointed out in 1992, "[s]ince the mid-1980s, there has been a marked shift in the orientation of the trade and industrial policies of most developing countries away from a heavy reliance on direct intervention and inward-looking industrial policies toward less controlled and more export-oriented trade regimes." More recent studies have shown that this radical change in policy has occurred in all regions and continued throughout the 1990s (Little et. al. 1993; Andriamanjara and Nash 1997; Sharer 1998; Subramanian 2000). Countries have chosen to integrate their economies into a global one by dismantling protectionist barriers.

This dramatic change in trade policy is surprising. Over the years, many scholars have emphasized the durability of the status quo in economic policy (e.g., Fernandez and Rodrik 1991). A status quo bias exists if trade liberalization is welfare enhancing but policy change is not made because the political costs of liberalization outweigh the economic benefits to be gained from it. The status quo bias in trade policy is often seen to be very significant since the benefits of protectionism are highly concentrated while the costs are diffuse. Vested interests in protectionist sectors are often tenacious pressure

groups with preferred access to policy makers. Any change in the protectionist status quo is thus unexpected and surprising.

Concurrent with this rush to free trade, there has been a global movement toward democracy. While in 1975 there were approximately 30 democracies in the world, by 1992 the number had grown to about 89, which was roughly half the total number of independent countries in the world (Diamond and Plattner 1993). The World Bank Development Report 1997 says that “[i]n 1974 only thirty-nine countries --one in every four worldwide--were independent democracies. Today, 117 countries--nearly two of every three--use open elections to choose their leaders.” By 2002 this figure had risen to 140 countries (UNDP 2002: 14). Are these two trends in economic and political reform in the lesser developed countries (LDCs) related? In particular, are democracies more likely to initiate trade liberalizing reforms than autocracies?

Are political institutions likely to be related to trade policy? The literature contains claims for a variety of positions on this issue, but systematic theory and data are lacking. Rodrik (1994), for instance, argues that any change in political regime is likely to induce trade reforms. “Historically sharp changes in trade policy have almost always been preceded (or accompanied) by changes in the political regime. Not all political transformations result in trade reform, but sharp changes in trade policy are typically the result of such transformations.” Changes toward or away from democracy might induce trade policy changes. The conventional wisdom for many years, however, has been that democracy is not propitious for economic reform, and indeed that nondemocratic countries should be more likely to liberalize, as Chile in the 1970s seemed to suggest. As Geddes (1995) summarizes, “[u]ntil recently, it was widely accepted that democracies,

especially fragile, uninstitutionalized new democracies have difficulty carrying out economic liberalization because its costs make it unpopular and hence politically suicidal to elected officials. Consequently, it was argued, authoritarian governments should be more capable of initiating and sustaining major economic reforms.”

Other scholars have argued that regime type makes little difference for economic reform, as for example Nelson (1990) and Remmer (1990) claim. Finally, Haggard and Kaufmann (1995) argue that differences within regime types (i.e., among democracies and among autocracies) are likely to have more effect on the capacity to initiate economic reform than is regime type itself. A few systematic studies of the impact of democracy on trade liberalization exist (e.g., Mansfield, Milner and Rosendorff 2000). But it is only recently that some, such as Geddes (1995), have come to the conclusion that democracy actually might make economic reform more likely. In sum, the systematic investigation of the impact of political institutions on the decision to liberalize trade merits greater attention.

In the political economy literature, the question tends to be approached from the opposite end: what determines trade policy? Baldwin (1982) discusses the political economy of protectionism in his excellent survey paper. Mayer (1984) evaluates the dependence of tariff rates on the distribution of factor-ownership, the costs of voting, and the degree of factor mobility and industry diversification in the economy. His median voter model using the Heckscher-Ohlin framework (two factors and two sectors), which is employed here, has produced interesting findings about the political economy of trade. In a series of papers, for instance, Dutt and Mitra (2002a, b) have shown that in such a framework an increase in inequality raises trade barriers in capital rich countries and

lowers them in capital scarce ones, and that left-wing governments adopt more protectionist policies in capital rich countries but more free trade policies in labor rich economies than do right wing governments. These cross sectional findings are evidence that Heckscher-Ohlin models may describe the politics of trade policy fairly well; others using them have also been able to explain important political outcomes (e.g., Balistreri 1997; Beaulieu 2002; Scheve and Slaughter 2001). But these models have not been used to explain change over time, such as we see in the rush to free trade. Using a very different model of trade policy, Grossman and Helpman (1994) analyze how interest groups bid for protection with their campaign support. These works show how changes in political participation, especially among interest groups, affect trade policy outcomes. These theories seem less capable of explaining how developing countries around the world were suddenly able to liberalize their trade policies. For instance, neither factor endowments nor inequality nor interest group organization changed dramatically during this time.

This rush to free trade also seems anomalous in light of the well-known tendency of countries to resist reform, as discussed by Fernandez and Rodrik (1991), Drazen (1996), Alesina and Drazen (1991), and Nelson (1994a) among others. Some of these war of attrition models do point out conditions under which reform is more likely to be adopted (more quickly). For example, Rodrik (1996), Drazen and Grilli (1993), and Alesina and Drazen (1991) note that the more distortionary the policy in place and hence the worse off the economy is, the more likely that all groups will be able to agree on reform. An economy then that is in crisis should facilitate reform (e.g., Nelson 1994a:

11). Few systematic tests of these hypotheses have been performed, and we will try to control for some of these factors in our empirical analysis.

The three main arguments explaining economic reform in the LDCs focus on external pressures, political leaders and their ideas, and economic crisis. Many scholars have argued that a variety of pressures external to the LDCs have forced them to change their policies and join the global economy. Some arguments focus on US hegemony associated with the end of the Cold War, others on the role of private investors and countries' desire for foreign investment, and others on pressures from international institutions such as the IMF, World Bank and WTO (e.g., Kahler 1986 & 1989; Stallings and Kaufman 1989; Haggard and Kaufman 1992; Nelson 1990 & 1994a; Stallings 1995). Some scholars, including for example Edwards (1995), Bierstecker (1995), Krueger (1997) and Sikkink (1997), attribute economic reform to changes either in political leaders or in the ideas these leaders hold about economic development. For them, economic failure (both absolute and relative) prompted leaders to give up on import-substituting industrialization (ISI) and move toward more market-friendly economic policies; reform then came from new leaders with different ideas or from old leaders with new ideas. Other scholars (e.g., Stallings and Kaufman 1989; Nelson 1990 & 1994a; Haggard and Kaufmann 1995; Edwards 1995; Drazen and Grilli 1993; Tornell 1998; Drazen and Easterly 2001) emphasize economic crisis as the spur to reform. Crises underscore the failure of old policies and create an environment in which radical, new policies can be tried. They also increase countries' reliance on external benefactors, such as private investors or the IMF. The crisis argument is related to the external pressures argument, as well as the claims about new ideas and wars-of-attrition. Despite the

difficulty of testing these claims, we think that these factors do make a difference. In order to show that regime type also plays a role, we must try to control for these factors as well.

The paper is divided into five sections. In the next section, we present some facts about trade policy and democratization in the LDCs over the past thirty years and we outline casually how democracy may be related to trade liberalization. In section 3, we formalize our argument by introducing a simple formal model that highlights the causal story behind our argument. Our intent is to show how a political leader's calculations about the optimal level of protection may change with the political regime. The model abstracts away from many other features of the polity in order to highlight our claim. In section 4, we present econometric evidence using a variety of data covering over 100 LDCs during the period from 1970-1999.¹ In section 5 we conclude by arguing that regime type and changes in it matter for trade policy, even when controlling for many other factors. Democracies and democratization lead to lower levels of trade barriers.

II. Some Stylized Facts about Trade Liberalization and Democracy.

In 1960s and 1970s, many LDCs had a trade regime marked by extensive, overlapping, uneven and often prohibitive trade restrictions; ISI was the policy regime of choice. The groups that gained from these policies tended to be powerful supporters of the political leaders, and changing trade policies, it was believed, would inflict severe costs on the regime's main backers. Even the debt crisis of the early 1980s was unable to shake this coalition from its economically inefficient policies. Indeed, many scholars

¹ . Our data includes all LDCs; it excludes the advanced industrial countries of North America, Asia/Pacific and the European Union because our model does not apply to these countries, for reasons we point out later.

report that protection increased in the wake of the debt crisis, especially in Latin America. As Haggard and Webb (1994) point out, “if the interest group configuration does not change, it is unclear how the status quo (protection) could ever be transcended.” The status quo bias against liberalization is thus a key issue; something must change so that this bias can be overcome.

Beginning in the 1980s the status quo was overturned. The data we have collected on less developed countries (LDCs) demonstrates a massive change in their trade policies. Strong evidence of this rush to free trade is evident from 1970 to 1999 for five different measures of trade policy. For instance, there has been a dramatic decline of about 60% from 1982 to 1999 in the average tariff level for about 40 LDCs; statutory tariff rates fell from an average of about 30% in the early 1980s to around 12% in 1999 (World Bank 2001). Tariff duties collected as a percent of imports have also fallen for a large number of LDCs. Available for about 85-90 countries over the 1973 to 1997 period, this data shows that duties peaked in 1973 at 21% of imports, and then fell almost 53%, ending at about 10% of the value of imports (IMF GFS; WB WDI). This is very consistent with the statutory tariff rate data; by the late 1990s, both series show that tariff rates had dropped in the LDCs to around 10%.

More evidence of trade liberalization comes from non-tariff barriers (NTBs). While coverage is very limited (on average 30 LDCs are sampled every few years), the data show that beginning in 1984 at around 38% average NTB coverage ratios declined to around 17% in 1998, or about a 55% decrease (UNCTAD 1994, 2000). Falling tariffs were not compensated for by rising NTBs.

Another measure of trade policy is the dichotomous categorization of countries into open and closed trade regimes constructed by Sachs and Warner (1995) and updated by Horn and Wacziarg (2002).² According to this data which covers 90 LDCs per year from 1970 to 1999, the percentage of LDCs scored as open rises from 15% in the early 1970s to 64% in 1999, with the biggest changes beginning in the mid 1980s.

Finally, using an outcome measure, trade dependence (exports + imports as a percent of GDP), we can see that policy liberalization has been associated with real changes in LDCs economies' exposure to international competition. From 1970, trade as a percentage of the domestic economy rose from an average of 55% to nearly 85% in 1999, or a 55% increase (WB WDI). All five measures of trade policy underscore the same message: since the mid 1980s, countries across the globe have decided to dramatically reduce their trade barriers and move toward freer trade.

Our central question then is what disturbed the historical equilibrium involving interest groups and political leaders around protectionism? We argue that the movement toward democracy in developing countries can provide part of the answer. Democratization opened up new avenues of support for freer trade. It reduced the ability of governments to use trade barriers as a strategy for garnering political support.

Evidence of democratization among the LDCs is plentiful. Our data show that beginning before the rush to free trade there was a global movement toward democracy. Using data from Polity III (Jagers and Gurr 1995), the average regime score for about 110 LDCs fell from -3.4 in 1970 to a low of -4.71 in 1977 and then rose to a high of 1.8

² . Sachs and Warner (1995) define an economy as closed if any one of the following is true: NTBs cover 40% or more of trade; average tariff rates are 40% or more; the black market exchange rate depreciated by 20% or more relative to the official exchange rate during the 1970s or 1980s; a socialist economy existed as defined by Kornai (1992); or there was a state monopoly on exports.

in 1999.³ Similarly, the dichotomous regime classification from Alvarez, et. al. (1996) shows how the number of democracies has increased over time.⁴ Starting from about 16% in the early 1970s, the percent of democracies falls to a low of 14% among about 110 LDCs in 1977, but then rises to 49% in 1999. Similar to the Polity data, this series shows that the percentage of democratic countries was falling in the 1970s, but began a vigorous rise after 1977. Importantly, both figures show that the process of democratization among the LDCs began in the late 1970s, almost a decade before widespread trade liberalization got underway. That is, the wave of democratization preceded the trade liberalization one.

How might democracy contribute to trade liberalization? Democratization means a movement toward majority rule with universal suffrage in contested elections. We call the group of actors who participate in the selection of political leaders “the selectorate,” following the terminology of Bueno de Mesquita, et. al.(1999). In a democracy, the selectorate is the part of the population that is eligible to vote. In a non-democracy, the selectorate is that subset of the population upon whose political support leaders could potentially rely to remain in office. The winning coalition is the minimal set of individuals whose support an incumbent needs to remain in office. In a democracy, this may be a simple majority of voters, whereas in an autocracy it may be more complex. The winning coalition is a subset of the selectorate. Changes in the size of the selectorate (e.g., giving the vote to women) and the number of votes necessary to form the winning coalition tend to correlate. Increasing the selectorate tends to imply an increase in the

³ . To measure each state’s regime type (REGIME), we rely on the index constructed by Gurr et al. (1989) and Jagers and Gurr (1995), which uses a 21-point scale that takes on values ranging from -10 for a highly autocratic state to 10 for a highly democratic country.

⁴ . Alvarez, et. al. (1996) and Przeworski, et. al. (2000) developed a dichotomous measure that codes a regime as democratic if and only if high political offices are chosen through contested elections.

size of the winning coalition; in a majority voting situation, this means a change in the median voter.

We identify democratization as a process involving an expansion of the winning coalition, and hence of the selectorate. Democracies choose political leaders through popular elections, while autocrats maintain their position with the backing of fairly small groups, such as the military elite, large landowners, or heavy industrialists.

Democratization implies an expansion of the selectorate and the winning coalition, which has implications for the optimal policies that leaders will choose. This expansion implies a change in the composition of the selectorate, and hence a change in its preferred policies. To retain office, leaders must adjust their policies to be responsive to the preferences of the expanded selectorate.

Using a simple model, we show that change in the degree of democracy is important for trade policy: the optimal level of protectionism for political leaders is a declining function of the size of the winning coalition. Even if the same political leaders remain in office after democratization, an expansion of the winning coalition reduces the level of protection that is optimal for leaders to provide. Our claim is that the calculus of political leaders about their best trade policy choices changes as the political system changes.

A number of cases can be cited to illustrate this argument. For instance, in 1982 Bolivia began a democratic transition. Shortly after this, the new government launched an economic reform program in 1985, which eliminated all quantitative restrictions (QRs) and lowered tariffs (Haggard and Kaufman 1995; Rodrik 1994; Munoz 1994). Argentina shows a similar picture. There the democratic transition began in 1983 and substantial

trade reform followed in 1988; it included tariff reductions and the elimination of import licensing (Rodrik 1994; Haggard and Kaufman 1995; Munoz 1994). In other parts of the world this pattern has been repeated. For instance, in the Philippines the first parliamentary elections occurred in 1984 and were followed by presidential ones in 1986 after the ouster of the dictator Marcos. After this political change (1986-88), the new leaders began changing economic policy, replacing QRs with tariffs and then reducing tariffs (Haggard 1990; IMF 1992). The democratization of many east central European countries, such as in Poland, was followed by economic reform, including massive trade liberalization (Nelson 1994b). Recently democratization in Africa has lent an impetus to trade liberalization there as well (Subramanian 2000). These cases among others suggest that changes in regime type may have an influence on changes in trade policy. We provide a simple model to explicate the logic behind our argument and then test whether there is systematic evidence to support our claim.

III. Some Microfoundations for our Claim: A Model.

Here we formalize the argument made above by presenting a simplified model of a political economy. It is intended not to represent reality but to highlight the casual story underlying our argument. We use it to illuminate one element of the choice process that a political leader in a less developed country might employ in thinking about trade policy.⁵ This abstraction is intended to put into high relief the way in which

⁵ . Democratization refers to that in contemporary LDCs, and not that historically experienced by the OECD countries. We do not attempt to explain trade policy in Sweden and the United States, for example. For two reasons, we expect the impact of democracy on trade policy to be different in developed countries. First, democratization in these countries was quite different from that occurring in the past twenty years. Attainment of universal suffrage was a contentious and delayed part of the democratization process then, whereas nowadays it is an essential part. Moreover, today developed countries' trade is

democratization may lead political actors to see trade liberalization as in their best interests.

We employ a simple voting model of a small trading country in which two political parties seek elected office, and trade policy is their only instrument. We model political competition in a Downsian (1957) framework: parties care most about winning elections and hence office. They care less about particular policy positions. Hence parties are more likely to converge on policy positions that appeal to the median voter than to diverge. Many countries have party systems with more than two parties, and complete convergence upon the preferences of the median voter in any system is unlikely. Pressures for convergence, however, may exist even in more complex systems with many parties, actors who care about policy and office, and non-plurality rule (e.g., Calvert 1985; Grossman and Helpman 2001). Our goal is to show how even a simple form of political competition may generate pressures on leaders to change their policies as new groups enter the political system.

The Assumptions:

Our model uses a simplified version of Mayer (1984).⁶ First, we lay out the assumptions behind the type of economy in which the actors operate. The economy is described by a Heckscher-Ohlin model: there are two factors of production, capital and labor; two

generated less by Heckscher-Ohlin type endowments than by Ricardo-Viner type specific factors models, meaning that our model is less appropriate for them.

⁶ . The main difference between our model and Mayer's (1984) is that instead of voting costs determining the probability of voters casting ballots, we restrict voter eligibility to those who own a certain amount of capital, with the threshold level of ownership declining as the society becomes more democratic. His point of departure is free trade, whereas our model starts out with a heavily protected trade regime, which is closer to the reality of most LDCs. Our main contribution is to modify his model so that a testable hypothesis can be drawn, and to provide some empirical evidence.

goods, X_1 and X_2 where X_1 is the import-competing good.⁷ There are I consumers (who are potential voters) in the economy, whose preferences are assumed to be homothetic and identical. Each consumer is endowed with a unit of labor ($L^i = 1$) and a differentiated amount of capital, $K^i > 0$, $i = 1, \dots, I$. Consumers/voters thus differ in their endowments of capital. The indirect utility function of individual i is:

$$U^i = U^i(p, y^i).$$

where p is the relative price of X_1 expressed in units of X_2 and y^i is the income of individual i measured in units of X_2 . The total income of individual i is given by:

$$y^i = w + rK^i + T^i$$

where w is the wage rate, r is the return on capital, and T^i is the tariff revenues received by i . All tariff revenues are redistributed back to voters in a manner that is neutral with respect to the overall distribution of income, that is,

$$T^i = \phi^i T,$$

where T is total tariff revenues, and ϕ^i is i 's income share from factor ownership:

$$\phi^i = \frac{w + rK^i}{wL + rK}.$$

Total labor and capital endowment in the economy are L and K , respectively.

Here L is the total labor supply or the number of inhabitants, and $K = \sum_i K^i$. Also note

that $\sum_i \phi^i = 1$. Substituting these into equation for an individual's total income, we get

⁷ . It is assumed that production is homogenous of degree one, markets are perfectly competitive, the economy is specialized incompletely for all relevant tariff rates, and factors are completely mobile across sectors.

$$y^i = \phi^i (wL + rK + T) = \phi^i Y.$$

Y is aggregate national income. Let M be the import quantity, t the tariff rate, and π the world price of X_I . Then, the total tariff revenues are:

$$T = t\pi M.$$

Hence when factor ownership differs among voters, we know that their welfare is affected differentially by a change in tariffs, since

$$U^i = U^i(p, \phi^i Y).$$

Differences in factor ownership among consumers then lead some to gain and others to lose from an increase in tariffs. From this, we can derive the optimal level of protection for any individual in the economy.

Optimal Tariff Rates:

The model is intended to show a political leader's optimal choice of trade policy, given the state of the economy and voters' behavior. An individual's most preferred tariff (subsidy) rate depends on her factor ownership. Using the fact that $p = \pi(1 + t)$ and differentiating with respect to t , we show that an individual i 's optimal tariff rate is defined implicitly by:

$$\frac{\partial U^i}{\partial t} = \frac{\partial U^i}{\partial p} \frac{\partial p}{\partial t} + \frac{\partial U^i}{\partial y^i} \left(\phi^i \frac{\partial Y}{\partial t} + Y \frac{\partial \phi^i}{\partial t} \right) \text{ so that by Roy's identity}^8$$

$$\frac{\partial U^i}{\partial t} = \left(\frac{\partial U^i}{\partial y^i} \right) \left(-D_1 \phi^i \pi + \phi^i \frac{\partial Y}{\partial t} + Y \frac{\partial \phi^i}{\partial t} \right). \quad (1)$$

Here D_1 denotes aggregate demand for good 1, which depends on domestic production and imports. Aggregate income Y (in terms of the second good) is given by

⁸. This also depends on a property of homothetic utility functions such that the i th individual's demand for a good equals the product of its income share and aggregate demand for the same good.

$$Y = wL + rK + T = pX_1 + X_2 + t\pi M.$$

This means there are three sources of income for any individual: ownership of labor, ownership of land, and redistributions of tariff revenues. Hence

$$\begin{aligned}\frac{\partial Y}{\partial t} &= \pi X_1 + p \frac{\partial X_1}{\partial t} + \frac{\partial X_2}{\partial t} + \pi M + t\pi \frac{\partial M}{\partial t} \\ &= \pi(X_1 + M) + t\pi \frac{\partial M}{\partial t}.\end{aligned}$$

Equation (1) can then be rewritten as

$$\begin{aligned}\frac{\partial U^i}{\partial t} &= \frac{\partial U^i}{\partial y^i} \left[-\phi^i \left(\frac{\partial Y}{\partial t} - t\pi \frac{\partial M}{\partial t} \right) + \phi^i \frac{\partial Y}{\partial t} + Y \frac{\partial \phi^i}{\partial t} \right] \text{ So we have} \\ \frac{\partial U^i}{\partial t} &= \frac{\partial U^i}{\partial y^i} \left(\phi^i t\pi \frac{\partial M}{\partial t} + Y \frac{\partial \phi^i}{\partial t} \right).\end{aligned}\quad (2)$$

The optimal tariff rate t^{i*} for individual i is found by setting equation (2) equal to zero and solving for t^i . This yields

$$t^{i*} = -Y \frac{\frac{\partial \phi^i}{\partial t}}{\phi^i \pi \frac{\partial M}{\partial t}}.\quad (3)$$

To find out whether an individual prefers a tariff (subsidy) or not, we must establish whether the RHS of this equation is positive (negative). We know that the denominator is negative since imports always decline as import tariffs rise; i.e., $\frac{\partial M}{\partial t} < 0$. The sign of the numerator in (3) depends on individual i 's factor endowments relative to the economy as a whole, and on the relative factor intensity of the import industry. That is, it depends on the sign of

$$\frac{\partial \phi^i}{\partial t} = \frac{wL}{(wL + rK)^2} \cdot r \left(\frac{K}{L} - K^i \right) \cdot \left(\frac{\partial w/\partial t}{w} - \frac{\partial r/\partial t}{r} \right).\quad (4)$$

If the import-competing sector is capital-intensive, as is natural to assume since we are interested in developing countries, the sign of the last parenthesis is negative (the percentage change of the return on capital is larger than that of wages). We know the first term is positive. Therefore, the whole expression in (4) is positive (negative) if the second term is negative (positive); that is, if the individual i owns more (less) capital than average.

Thus going back to expression (3), we can establish the individual's preferred trade policy. Since expression (4) is positive if individual i has more capital than average, this means that expression (3) must be positive and thus that the individual's utility rises with an increase in trade barriers. On the other hand, if an individual has less capital than average (i.e., expression (4) is negative), they will not desire high trade barriers, since their utility falls as tariffs rise (expression (3) is negative). In general, a tariff increase produces a higher income share for the i th individual if that individual, relative to the nation, is relatively well endowed with the imported good's intensively used factor of production.

The Polity: Voting for Reform.

Following Mayer (1984) and Yang (1995), we assume that political leaders act as if actual tariff rates are determined by some form of majority voting. Both of the political parties propose the same tariff rate, i.e., that supported by the median voter in the selectorate. Political competition drives them to make their policy choice the one that is optimal for the median voter if they desire to be (re)elected. As noted above, in non-democratic countries we simply assume that those eligible to determine who the leaders will be (i.e., to "vote") are part of a very restricted selectorate. Obviously, in many

autocracies either the voting that takes place does not affect the choice of leadership, or voting does not occur at all. Our assumption is that even dictators must earn the confidence of some winning coalition of the populace, and hence that in effect leaders must garner the support of some majority of the populace that has the right to determine the leadership. It is as if the powerful actors in a country voted to select their leaders.

As a country democratizes, the selectorate grows and the median voter changes. Specifically, we assume that initially the selectorate consists of those who own the most capital: those with “voting” rights own above average levels of capital. Denoting the optimal tariff rate for the median voter t^{m*} , we have

$$t^{m*} = -Y \frac{\partial \phi^m}{\partial t} / \left(\phi^m \pi \frac{\partial M}{\partial t} \right). \quad (5)$$

Given that political competition forces parties to adopt the position of the median voter, how do this voter’s trade preferences change as her identity changes? We know that expression (5) is increasing in the amount of capital that the median voter m owns, meaning that

$$\frac{\partial t^{m*}}{\partial K^m} > 0.$$

Hence the more capital the median voter owns, the higher the prevailing tariff rate will be.⁹ As democracy advances to include those who own less and less capital, the median voter's capital ownership will decline, and her optimal tariff rate decreases as well. When

⁹ . If the import-competing sector is labor-intensive, as in advanced economies, and universal election rights are in place, we expect more protectionism. It is notable that trade restrictions in these countries remain mainly in labor-intensive sectors such as textiles.

universal suffrage is achieved, trade policy will reflect the preference of the economy-wide median voter, and this voter will prefer lower tariffs the less capital she has.

The model predicts that in developing countries if the government is supported only by a small electorate and thus is not responsive to the overall population, it will employ protectionism. As the electorate grows, however, leaders should find it in their political interests to modify their trade policies. These modified policies may benefit the population at large even though the government is not directly concerned about its welfare. The parties care about being in office and are forced toward the median voters' preferences. As this voter becomes less well endowed with capital, high levels of protection-- even when redistributed back to voters-- no longer compensate for the loss of income from protectionism. Thus, as the political regime becomes more democratic, political competition will induce leaders to make their trade policies less restrictive. Moreover, in countries that are more democratic, more liberal trade policies should prevail since their electorates will be larger. The model offers a simplified mechanism for understanding why political leaders in LDCs may prefer lower trade barriers as their regimes democratize. It highlights the microfoundations of our argument; it is not intended as a representation of a real political system.

Implications of the Model:

Does this model imply that workers or consumers actively lobby for trade liberalization? This is not a direct implication. This model focuses on the behavior of political leaders and not on that of the voters. Leaders of the parties choose trade policy. Political competition drives this choice since leaders desire to gain or retain office. Voters vote on the basis of their income; they need not know anything about trade policy (although here

we assume complete information). This simple model shows that the income of the median voter is maximized at trade policy t^{m*} . Political leaders know this and are forced to offer this trade policy given their desire for office. It is in the leaders' best interest to do this; no explicit lobbying or support from voters is necessary for this. If political competition generates any pressure for convergence, then those vying for office will see lower trade barriers as being advantageous when democratization occurs.

Is it realistic to assume that the median voter, who with universal suffrage in a developing country is probably a worker, gains from trade liberalization? Don't workers lose from it and thus oppose it? It is important to separate trade liberalization from the other economic reforms that often occur in countries. Many of these reforms, such as privatization, pension reform, and labor market flexibility, may have significant negative effects (at least in the short-term) for workers, and are often bitterly opposed by them (e.g, Naim 1993; Murillo 2000). In contrast, in the same countries trade liberalization has often been supported, or at least not opposed, by workers and their organizations, as Murillo (2000) shows has been the case in Mexico, Argentina and Venezuela. Others point out that voters may support governments even when times turn bad because they think bad times now are a signal of good times to come. As Stokes et. al. (2001: 25) show for a wide variety of countries, "Our most startling result is that in every country people sometimes reacted to economic deterioration by supporting the government and its economic program more strongly." Moreover, polls conducted in Mexico show that voters strongly favored trade liberalization via NAFTA and thought it would mean more jobs and higher wages for Mexicans (Cordoba 1994: 265). Research on the transition economies in East-Central Europe shows a similar picture; in most of these countries

public support for trade liberalization was strong and never wavered even after it began (e.g., Aslund, Boone and Johnson 1996; Frye and Mansfield 2001).

As for whether trade liberalization benefits or harms workers in LDCs, the data are mixed. Some scholars show that increased openness leads to faster economic growth, which is likely to benefit workers (Dollar 1992; Harrison 1996; Edwards 1992& 1998; Frankel and Romer 1999; Barro 2001); others cast doubt on any claim relating trade policy to growth (e.g., Rodriguez and Rodrik 2001). At the microeconomic level scholars have shown rather surprisingly that trade liberalization may not have very important positive or negative effects for firms or workers, raising the question of why they would protest it (e.g., Harrison 1994; Tybout and Westbrook 1995; Levinsohn 1999; Seddon and Wacziarg 2001). Theoretically, Heckscher-Ohlin (and Stolper-Samuelson) models suggest that workers should gain from trade liberalization in LDCs; and empirically the data do not reject this claim. In sum, our model says little about voters/workers' behavior; rather it provides a simple political economy story about why political leaders may change their trade policy preferences as political institutions change.

IV. Empirical Analysis:

According to our model, democracies should be more free trade-oriented than non-democracies and an increase in the degree of democracy should induce a move to liberalize trade. There are many theories describing the relationship between political and economic reforms, but there has not been much systematic empirical work done on trade liberalization. Part of the reason is that both political and trade regimes are very difficult to measure. We work with a time-series cross-section (TSCS) dataset containing 179

developing countries from 1970-1999 (coverage varies depending on the variables). Our central hypothesis is that more democratic countries should have fewer trade barriers, *ceteris paribus*; or, an increase in democracy should prompt a reduction in trade barriers. The claims are both cross-sectional and longitudinal.

The Data:

Our central independent variable is the type of political regime in place in a country at time t . The political regime variable comes from Polity III and Polity IV, (Gurr and Jagers 1995; Marshall and Jagers 2001), which collected data on the political characteristics of 177 countries between 1800 and 1999. To measure each state's regime type, we rely on the widely-used index constructed by Gurr et al. (1989) and Jagers and Gurr (1995). This index combines data on five factors that capture the institutional differences between democracies and autocracies: 1.) the competitiveness of the process for selecting a country's chief executive, 2.) the openness of this process, 3.) the extent to which institutional constraints limit a chief executive's decision-making authority, 4.) the competitiveness of political participation within a country, and 5.) the degree to which binding rules govern political participation within it. Each of these five measures is directly related to our model's emphasis on political competition and the size of the selectorate; therefore, we think this is a good measure of the elements of democracy that we model.

Following Gurr et al. (1989) and Jagers and Gurr (1995), these data are used to create an 11-point index of each state's democratic characteristics (*DEMOC*) and an 11-point index of its autocratic characteristics (*AUTOC*). The difference between these indices, $REGIME = DEMOC - AUTOC$, yields a summary measure of regime type that

takes on values ranging from -10 for a highly autocratic state to 10 for a highly democratic country. Note that it captures both the variation in democracies and in autocracies. For instance, not all autocracies are the same in terms of our model. Some autocracies would seem to have a more expansive selectorate than others. Mexico, for example, might be seen as more democratic than Saudi Arabia or China; Polity catches these differences: for instance, in 1980, Mexico scores a -3, while Saudi Arabia gets -10 and China, -7. Polity's scoring of autocracies correlates highly with a categorization of autocracies created by Geddes (2002); in terms of our model, countries she codes as single party regimes, then military ones and then personalistic ones represent a declining scale of democracy, which correlates at roughly the 0.6 level with REGIME. Similarly, differences among relatively democratic countries can be discerned. Summary statistics for REGIME, as well as our other variables (and their sources) are listed in Table 1. We use a lagged version of REGIME (from one to three periods) in the regressions to mitigate endogeneity issues.

To increase the robustness of our analysis, we use two other measures of regime type. First, from Geddes' data on autocracies we construct a variable ranging from 1 to 8, where 8 is most democratic. Since well over two-thirds of the regimes we have data for are autocracies, it is interesting to explicitly categorize them to see if their differences matter. Polity does this one way, and Geddes does it another. Geddes (1999) argues that certain autocracies are longer-lived because of their internal characteristics; she sometimes equates these differences with the nature and extent of the groups that support the autocrat. We interpret this as arguing that autocracies vary in the size of their selectorate and winning coalition. For her argument, single party systems seem to have

the broadest selectorates, followed by military-run governments and then personalist regimes with increasingly narrower selectorates and winning coalitions. “In personalist regimes, one individual dominates the military, state apparatus, and the ruling party if there is one. Because so much power is concentrated in the hands of one individual in personalist regimes, he generally controls the coalition-building agenda. ... In contrast to single-party regimes, the leader’s faction in a personalist regime may actually increase benefits to itself by excluding the rival faction from participation. Where the main benefits of participation in the government come from access to rents and illicit profit opportunities, benefits to individual members of the ruling group may be higher if they need not be shared too widely” (Geddes 1999: 12-14). We code as most autocratic all regimes with personalist elements, then those with military involvement and least of all those with a single party. This variable called DICTATOR is supplemented with data from Alvarez, et. al. (1996) and Przeworski, et. al. (2000) to add a code for democracy. Hence all countries not classified as autocracies by either Geddes or Alvarez, et. al. for which Alvarez, et. al. have data are coded as democratic.¹⁰ Note that this measure is blunter than Polity since it does not discern among democracies at all. We use both a lagged version of the DICTATOR variable and dummy variables for each category in the empirical analysis.

Our third measure of regime type is the dichotomous categorization created by Alvarez, et. al. (1996) and Przeworski, et. al. (2000). Their measure codes a regime as democratic if and only if high political offices are chosen through fair and free contested

¹⁰ . DICTATOR is coded as 1= all mixed regimes with some personalist element; 2=personalist regimes; 3=personalist mixed with military; 4=personalist mixed with single party; 5=military; 6=military mixed with single party; 7=single party; 8=democracy. All countries coded as autocracies by ACLP but missing in Geddes are coded as mixed (=1).

elections where alternation of leaders occurs. This measure is quite blunt since it assumes that the democratic transition occurs in one year and is fully completed at that time; it has been criticized (e.g., Elkins 2000; Collier and Adcock 1999). It makes no distinction between types of autocracies or levels of democracy. But it is highly correlated with the other two measures ($r=.80^{***}$ with REGIME and $r=.70^{***}$ with DICTATOR). We use ACLP in lagged form in the regressions.

Our central dependent variable measures a country's trade policy in year t . We want to predict the extent of protectionism, or conversely openness, of the trade regime. This is notoriously difficult to measure (Leamer 1988). Pritchett (1996), for instance, finds little correlation among different measures of openness in the literature. We, therefore, follow the example of Edwards (1992 & 1998) and use a variety of measures to test the robustness of the relationship. However, we face a difficult challenge in finding time-series as well as cross-sectional data since we are interested in how openness changes over time. We use two alternative ways of measuring trade policy.

Our first measure is a country's (unweighted) average statutory tariff rate (TARIFF), (WB 2001). This is the most appropriate measure for our model, which predicts a decline in tariff rates in response to the shift toward democracy. But it is poorly measured. Various countries were sampled several times in the 1980s and then almost yearly from 1992 to 1999, giving 907 total cases.

As our second measure of trade liberalization, we examine the Sachs-Warner (1995) dichotomous classification of regimes into open and closed ones, which has been updated by Horn and Wacziarg (2002). Sachs-Warner code a country as closed (SW=0) if any one of the following is true: NTBs cover 40% or more of trade; average tariff rates

are 40% or more; the black market exchange rate depreciated by 20% or more relative to the official exchange rate during the 1970s or 1980s; a socialist economy existed as defined by Kornai (1992); or there was a state monopoly on exports. This measure is very useful since it considers many forms of protectionism; it is much broader than tariff rates and thus more comprehensive. Others have used it, and it seems highly correlated with more precise data on trade liberalization episodes (see Seddon and Wacziarg 2000). It is correlated with statutory tariff rates at -0.49 (significant at .01 level). Our regressions using this variable are logistic ones since it is dichotomous. Since trade policy is hard to measure and comes in a variety of forms, using both of these measures should give us a broader picture of how trade policy is changing over time and across countries. If both show that democracy is related to trade liberalization, then confidence in our claims should be enhanced.

Changes in trade policy may be due to factors other than changes in the political regime, and we need to control for these. While there are numerous models of the political economy of trade policy, there does not exist a well-defined empirical model of trade policy that is widely accepted. Conventional wisdom as well as scholarly work suggests that two sets of factors should be included. First, we need to control for several economic variables.¹¹ It is often argued that small countries tend to be more open than large ones (e.g., Katzenstein 1985; Easterly and Rebelo 1993; Rodrik 1997). We thus measure a country's size by its population, using the lagged value of the natural log of population as our control (LNPOP). A country's level of economic development is also likely to affect its trade policy; more developed countries tend to have smaller trade

¹¹ . All economic data comes from World Bank, World Development Indicators.

barriers (Rodrik 1995; Easterly and Rebelo 1993). Hence we add the lagged value of per capita real GDP as a control (GDP PC).

The second set of control variables relates to both internal and external political factors that might affect trade policy. First among these is economic crisis. As noted above, the war of attrition models of economic reform often point out that the greater the distortions caused by the policy, the more likely reform is; economic crisis is one way to measure these distortions. Tornell (1998) among others claims that countries are likely to liberalize their trade regimes after economic crisis because crisis generates conflict among the powerful. He defines a country as being in crisis if either its inflation rate is skyrocketing or real income is plummeting. We use a very similar definition. Crises are either occurring or not; they are not long continuing events by definition and they are extreme events, not yearly changes in economic variables.

One important difficulty with this variable is defining what constitutes a crisis. Different economic problems may be more important in different countries, and different levels of those problems may trigger different evaluations of whether a crisis exists or not. We use two different notions of economic crisis, both of which stress that crises are unusual and extreme shocks. One, which is similar to Tornell's, deems a crisis to exist if one of two conditions holds: either the country's inflation rate was 40% or more and it increased by 25% or more from the year before, or per capita GDP fell by 15% or more from the previous year (ECRISIS=1). Our second form of crisis involves the balance of payments. Here we deem a crisis to exist (BPC=1) if a country's level of international reserves falls to less than the equivalent of three months' worth of imports. This second notion of crisis relates to a country's debt and capital flight problems. Interestingly, there

is practically no correlation ($r = 0.012$, not significant at 0.10) between these two forms of crisis, yet both are cited as reasons for economic reform. We include each of these in lagged form.

A second factor that many have argued is responsible for trade liberalization in the LDCs is external pressure from the various international financial institutions (IFIs) that provide funds to LDCs (such as the IMF or World Bank) or the world's hegemon, the US. In particular, the claim is that during or after an economic crisis LDCs are especially vulnerable to pressure from these actors, and that in exchange for loans or aid countries have been pressured into liberalizing their trade regimes—so called conditionality. The counterfactual is that they would never have made these changes without such overwhelming external pressure. To control for these external pressures, we include a variable indicating whether the country has just signed an IMF agreement to help bail it out of a crisis. Such a signing should represent a period of high external pressure since the country is claiming an inability to fund its own needs; IMF loans are intended to provide help for countries experiencing severe balance of payments or reserves crises. SIGNED created by Przeworski and Vreeland (2000) is equal to one if an IMF agreement has been signed in that year; it is lagged in the models. They also have another variables called UNDER, which expresses whether a country is subject to an IMF agreement that year. We use both, although we think the former is a superior measure of the magnitude of external pressure. In addition, we also look at the amount of total foreign aid that a country receives as a percent of its central government budget (AID). This measures the dependence of the government on foreign sources of (non-private)

capital. More external pressure of any sort should be related to lower trade barriers (e.g., Nelson 1990; Kahler 1986).

We include several other variables designed to capture the impact of external pressures of various sorts. These variables seem reasonable to include but they have not figured that much in most of the literature. We use a measure of US hegemony to capture the widespread claim that American power is responsible for economic reform in the developing countries. Because we are interested in trade, we measure hegemony (USHEG) as the sum of American exports and imports as a percent of world trade, much as Mansfield and Bronson (1997) among others do. If claims about Hegemonic Stability Theory are correct, then greater American power should induce trade liberalization elsewhere (e.g., Krasner 1976). We also examine the impact of the GATT/WTO on these countries. Joining GATT/WTO for whatever reason should induce countries to lower their trade barriers. This multilateral commitment mechanism for lower barriers has become increasingly important over time. We include a lagged variable indicating whether a country is in GATT/WTO (GATT=1) or not.

A third factor cited by many scholars involves the ideas that leaders have about the best policies available to them. Many claim that the turnabout in trade policy was caused by a change in the ideas that leaders held about the policies that would best promote economic development. Whether these new ideas resulted from policy failure or external pressure is debated. But the claim is that in their search for better development strategies, leaders decided that an open trade regime was preferred to the ISI one. It is difficult to find measures of such ideational change. One measure we use is the number of years a government has been in office (OFFICE). A new government might indicate a

change in leadership and hence a change in ideas. Others have examined whether governments in their first year of office are more likely to reform (e.g., Abiad and Mody 2002); we considered this (FIRST=1 if OFFICE<2; 0 otherwise), but it was never significant in the regressions.

Quinn (2001) has also developed an indicator of changing global ideas about economic policy. He uses a measure of the degree to which the top five advanced industrial countries have opened their capital markets (FIVEOP) to suggest how changes in ideas globally about the ideal set of foreign economic policies are evolving. Increases in this measure indicate that anti-capitalist sentiment is waning worldwide. This variable captures both changes in ideas about optimal policies and the potential contagion of those ideas from powerful developed states to the LDCs. We thus try to control for all of the main alternative explanations for trade liberalization in the LDCs.

Estimation Results:

The basic equation we use to estimate the relationship between democracy and trade policy is:

$$\begin{aligned} tradepolicy_{i,t} = & \beta_0 + \beta_1 REGIME_{i,t-1} + \beta_2 SIGNED_{i,t-1} \\ & + \beta_3 OFFICE_{i,t-1} + \beta_4 GDPPC_{i,t-1} + \beta_5 LNPOP_{i,t-1} + \beta_6 ECRISIS_{i,t-1} \\ & + \beta_7 BPC_{i,t-1} + u_i + \varepsilon_{i,t} \end{aligned}$$

We also include USHEG, GATT, and FIVEOP in some equations to check for robustness. TSCS data such as ours have numerous problems that violate the standard assumptions necessary for OLS to be unbiased and efficient. We try to correct for these in all of the standard ways. We use panel corrected standard errors to mitigate problems caused by various forms of heteroskedasticity, as recommended by Beck and Katz

(1995). We include country fixed effects and a time trend (DATE) or decade fixed effects to deal with problems of omitted variable bias. The use of a time trend allows us to address concerns about whether the relationship between democracy and trade policy is simply related to their both trending in one direction over time. The use of country fixed effects is particularly interesting in this model.¹² The fixed effects--or “within”--estimator helps exploit the time series component of the data around the country averages. The within estimator examines variation over time and thus helps address the question of what is the impact on trade policy of a change in regime type. This question is central to our model. We address problems of serial correlation by using an AR1 correction. In the logistic model, we estimate a natural spline function with three knots; we thus use the count variable and three splines generated by this procedure to handle the temporal dependence of the data, as recommended by Beck, Katz, and Tucker (1998). We estimate several regressions for each dependent variable (see tables 2-4).

Regime Type. In almost all of the regressions, regime type is correctly signed and significant. The regressions on tariff rates are the most direct test of our model. As table 2 shows, more democratic regimes tend to have lower tariff rates. Setting all the other variables at their means in equation (2), a one standard deviation increase in democracy from its mean leads to a 12.5% decrease in tariff rates. Moving from an absolute autocracy (-10) to a perfect democracy (10) induces a 31% decline in tariffs. These results are robust to a wide variety of controls.

Table 2 also shows that using other measures of regime type does not undermine our result. The DICTATOR variable is negative and quite significant, indicating again

¹² . In all the regressions, a Hausman test rejects the suitability of using random effects, not surprisingly. Results for REGIME are even stronger if we omit the country fixed effects.

that systems with larger selectorates tend to have lower trade barriers. An increase in DICTATOR by one standard deviation from its mean leads to roughly a 13% reduction in tariff rates. The dichotomous ACLP variable is also negative, but it is not significant at conventional levels. Interestingly, when we combine the REGIME variable from Polity with dummy variables for the three major types of autocracies, the type of autocracy matters, even when controlling for overall regime type. More democratic countries still tend to have lower barriers. But now compared to military controlled regimes, personalistic autocracies seem to have far more protectionist systems, while single party ones are less prone to protectionism. This suggests that variations within both democracies and autocracies may help explain choice of trade policy. We also turned Polity's REGIME variable into a dichotomous variable with countries scoring below 6 as autocracies (=0) and those at or above 6 as democracies (=1). Using equation 1 in table 2, we found that once again the regime coefficient is negative and very significant; more democratic countries have lower trade barriers. Because we are using fixed effect estimators, the interpretation of these results is that changes in the level of democracy from its country mean are associated with changes in the level of tariff rates. Political institutions and changes in them certainly matter for explaining the rush to free trade.

Table 4 shows that increasing democracy also increases the likelihood of a country opening its trade regime. A one unit increase in democracy in equation (5) raises the probability of a change to openness by 0.367. Equivalently, holding all other variables constant, each additional unit of increase in democracy multiplies the log odds of openness occurring by 1.44. Using alternative measures of regime type yields similar results. As above, we created a dichotomous version of Polity's REGIME score, with

countries at or above 6 scoring as democracy. This variable is also positive and very significantly related to trade liberalization. The DICTATOR variable is also positive and statistically very significantly related to trade policy liberalization. The same is true for the dichotomous ACLP variable. More democratic countries are more likely to liberalize their trade policies. As before, we get interesting results as well when using both the Polity measure and dummy variables for autocratic regimes types. The regime measures are all jointly significant ($p > .05$) with REGIME still having a positive relationship and military controlled regimes being more likely than single party regimes to liberalize and personalistic ones being much less likely.

In all of these cases, we are using fixed effects estimators; hence, the correct interpretation of these results is that increases in a country's level of democracy from its average are positively related to increases in the probability that the country will liberalize its trade. The broad Sachs-Warner measure of trade policy used here then gives similar results to the more narrow tariff measure. For the two different measures of trade policy, movement toward democracy is positively associated with a more open trading system, even when we account for the many other influences on a country's trade policy.

In order to test for the robustness of our results, we tried to address concerns about multicollinearity and exogeneity. (The use of panel corrected standard errors helps assuage problems with various types of heteroskedasticity; and the inclusion of country fixed effects, decade fixed effects and a time trend should address concerns about omitted variable biases.) In tables 3 and 5, we undertook to lag the regime variable by two and then three periods. As can be seen this did not affect our results greatly. The regime variable either by itself or jointly with all of the lags was correctly signed and significant.

We also lagged the main alternatives to our argument: the crisis variables (ECRISIS and BPC) and the external pressure variables (SIGNED) for two and three periods for both dependent variables. They were significant in only one case and did not affect the REGIME variable.¹³ This suggests that it is probably not multicollinearity (at least among the main alternative hypotheses) that is driving these results. Moreover, it suggests that the effect of REGIME on trade policy is fairly long lasting. We also dropped the outliers from equation 1 in table 2 and reran the regressions, which did not change the REGIME variable sign or significance.¹⁴

In addition, we regressed all the RHS variables in equation 1 of table 2 including the two trade policy measures lagged (each independently) on our measure of regime type. None of the variables, except GDP per capita, the time trend and the log of population, were near statistical significance, implying again that collinearity is not a huge problem. The trade policy measures were never near conventional levels of significance either, suggesting that they may not be causing regime change. In addition, we undertook several tests to see if there were exogeneity problems with the regime variable. First, following Wooldridge (2002: 118-22), we took the residuals from the two regressions of all of our RHS variables on REGIME and included them in regressions identical to those in table 2, equation 1 and table 4, equation 1. We then checked whether the coefficients on the residuals were significant; they were not at the 0.10 level. Again this test indicates that endogeneity is not acute.

¹³ . In the regressions using the Sachs-Warner variable, the second and third period lags of balance of payments crises were negative and significant. The first period lag was never significant, nor were the combination of the three lags. In none of the cases was the coefficient on regime changed in sign or significance.

¹⁴ . This entailed dropping observations whose residuals were more than 2, 3, or 5 standard deviations from the mean.

Another way to deal with endogeneity is to instrument for the variable in question. Finding useful instruments for regime type is not a trivial matter. In our case, they must be measures that predict regime type well and are not related to either trade policy or the errors. We used two instruments for regime: the average age of the party system in a country year (PTYAGE from Beck et. al. 2001) and the level of secondary school completion among the population over 15 years (SSCHOOL from Barro Lee 2001). We expected both variables to be positively related to democracy, but schooling turns out to be highly negatively related. Neither was significant in explaining trade policy, however. Using these two instruments, we estimated the impact of regime on statutory tariff rates in table 6. The regime variable remains negative and quite significant. A test devised by Davidson and MacKinnon (1993), which is similar to the (Durbin-Wu-)Hausman test, reveals that the null hypothesis that an OLS version of the same equation would be consistent can be rejected at the 0.01 level, suggesting that the instrumental variables are useful. A Sargan-like test for overidentification does not allow rejecting the null hypothesis that the instruments are useful and uncorrelated with the error term at the 0.05 level. These results give some confidence that even correcting for possible endogeneity, regime type still affects trade policy.

The Political Control Variables. Our first set of control variables explored the impact of economic crisis on a country's decision to liberalize. We included two distinct variables, ECRISIS and BPC, to capture the pressures from such crises. These variables do not seem to matter significantly, either independently or jointly. But their different signs do point out an interesting result. Economic crises related to inflation and/or recession seem to induce a reduction in tariffs, whereas balance of payments crises tend

to produce just the opposite. However, such economic crises tend to lead to greater closure according to the Sachs-Warner measure of trade policy, as do balance of payments crises. These results are not unexpected. Most of the claims about the role of crises have come from case studies that tend to select on the dependent variable; that is, they explore cases of economic reform and often find that crises (of varying types) existed as well. But they rarely look at the cases where countries experienced crises and did not reform.¹⁵ As noted earlier, many scholars noted that the debt crisis of the early 1980s did not lead to trade liberalization, but to greater closure. The effect of crises on political leaders may be highly contingent on the environment. Moreover, different types of crises may well have different effects on countries. Sorting through the myriad types of economic crises and their various political effects seems to be an important area for future research.

The second main set of external political factors we examine is the impact of external pressures. The main way we measured this was to look at whether countries had signed an agreement with the IMF in the previous period (we explored up to three lags). This variable was rarely, if ever, significant (at greater than the 0.10 level) in any of the regressions. It appears as if increases in external pressure via the IMF have little measurable effect on trade policy, and when they do (in the regressions on Sachs-Warner openness) it is to increase the closure of the economy, not to open it. The variable operates in the opposite fashion predicted by conventional wisdom. We also tried using whether a country was under any IMF agreement (in 1-3 previous periods), and this was

¹⁵ . A simple cross-tabulation of our data show that in 3% of the cases, liberalization according to Sachs-Warner occurred just after a bout of economic crisis; in 3% of cases, such crises occurred with no trade liberalization; and in 30% of them liberalization occurred with no crisis beforehand. For balance of payments crises, 40% of the cases had crises but no trade policy reform, compared to 16% with crises preceding the reforms.

never significant either. These results may not be that surprising given the findings of Przeworski and Vreeland (2000), among others, which show that countries do not receive IMF loans when they are most vulnerable and in crisis and that conditionality rarely seems to have much impact on policy. We also employed a variable measuring the amount of foreign aid a country received relative to its government budget. While this measure has many fewer observations, it was not significant either.

Our other measures of external influence do better. Whether a country is in GATT/WTO or not has a significant influence on both tariff rates and on Sachs-Warner openness. But the relationship is quite unexpected. Being a member raises one's tariff rates and lowers the probability that a country has an open trading regime. This finding, however, is consistent with recent research by Rose (2002a & b) where he shows that being a member of GATT/WTO does not increase a country's trade flows nor does it lead them to reduce their trade barriers. Many countries, it seems, choose to reduce their barriers before they enter the GATT or even if they have no plans for entering it. Furthermore, countries that are already in the international organization are much less likely to become open, *ceteris paribus*. In part, this results from the myriad exceptions in GATT rules (some tightened by the WTO) to reducing barriers. Among these exceptions the Generalized Special Preference Scheme (GSP) was very important for the LDCs; it allowed them to maintain their barriers while still gaining access to developed countries' markets. In part, this finding may reflect the fact that many of these countries decided to lower their trade barriers unilaterally before joining GATT/WTO. Once in the organization, further liberalization might be quite slow given the glacial pace of recent multilateral trade negotiations.

American hegemony also seems to have an impact but one contrary to the theory. In the Sachs-Warner liberalization case, increases in hegemony raised the probability that countries will have closed economies, *ceteris paribus*. While scholars have speculated that rising hegemony makes free trade more likely around the globe, the results here cast doubt on that claim. Rather, they seem to imply that rising hegemony may prompt others to fear the US more and act to close their economies to its burgeoning influence.

Our final political control looked at the change in ideas around the globe. We used a measure of how long governments had been in office to explore whether new government were more likely to undertake trade policy reform. This variable was only significant in the case of tariff rates, and here the findings were surprising. The longer governments had been in office, the lower were their tariff rates, *ceteris paribus*. This finding suggests that trade policy reform may require political stability and a government with a firm hold on power. A variable for whether the government was in its first year or not was never significant in any of the regressions, suggesting that in general new governments either did have new ideas about trade policy or they could not implement them.

Our measure of the global spread of pro-capitalist ideas, FIVEOP, has weak and inconsistent results. As predicted, in table 2 it suggests that the spread of pro-capitalist sentiments leads to reductions in tariff rates. In most cases it is not statistically significant. On the other hand, in tables 4 and 5, we see that it has the opposite effect on the likelihood that a country has an open trade regime. Rising pro-capitalist sentiment increases the probability that a country has a closed economy, *ceteris paribus*. These

political control variables produce some unexpected results, pointing up new avenues for future attention.

We looked at several other, less obvious factors that might affect economic reforms like trade policy liberalization. We included a variable for a government's relative political capacity (Feng, Kugler and Zak 2000). This measures a government's ability to extract resources from its society. One might expect a more capable government to need to use trade taxes less and hence be more likely to liberalize. It was not significant in regressions on either dependent variable (equation 1 in tables 2 and 4) and did not affect the sign or significance of the REGIME variable. We also included a variable indicating whether a country was involved in a war that year or previously.¹⁶ War is expected to make protectionism more likely and reduce the chances of trade liberalization. Its effect on tariff rates was positive but nowhere near conventional levels of significance. Its effect on liberalization was negative, as expected, and significant in some cases. It did not alter the sign or significance of the REGIME variable, however. In addition, we employed a variable intended to show the similarity between the foreign policy interests of an LDC and the US by measuring the overlap in UN voting (Gartzke and Jo 2002). We expect that such similarity should be associated with a more open economy and hence lower trade barriers. This variable had no statistically significant impact on Sachs-Warner liberalization, but it sometimes had a modestly negative impact on tariff rates. It did not materially affect the REGIME variable. Finally, we added data on inequality (Feng, Kugler and Zak 2000). These data are few and of low quality (some are imputed) so results should be regarded with low confidence. But for neither

¹⁶ . WAR was coded from the latest Correlates of War dataset and includes all three types of war.

dependent variable was inequality near conventional levels of significance, nor did it affect the sign or significance of the REGIME variable.

The Economic Factors. We included several obvious economic controls for trade policy. Our variable measuring country size, LOGPOP, is always significant but not as expected. Big countries tend to have higher tariff rates, as often suggested, but they tend to be more likely to liberalize, *ceteris paribus*. The level of economic development (GDP PC) seems to matter at times. But among the LDCs more developed countries have more restrictive trade regimes, *ceteris paribus* (tables 2 and 3).

We looked at a number of other economic factors that might have some relationship to trade policy, although most of these have fewer theoretical linkages. First, we tried to control for countries with heavy dependence on oil and fuel exports. Unfortunately, given the use of country fixed effects and that the oil-producers change little over time, we were unable to address this point. Second, we looked at a country's flows of direct foreign investment as a percent of GNP (Global Development Finance 2000). We are not sure why this would affect trade policy; indeed, it is more natural to think that trade policy affects these flows. But these flows were sometimes positively related to tariff rates, had no statistically significant relationship to trade liberalization, and did not change the sign or significance of REGIME. Third, we included a measure of a country's exchange rate regime measured along a continuum of fixed to floating (Levy-Yeyati and Sturzenegger 2002). This variable had no statistically significant relationship to tariff rates, a mildly negative impact on trade liberalization à la Sachs-Warner; its inclusion did not affect the sign or significance of REGIME. Finally, we also looked at (lagged) yearly changes in GNP per capita, GDP, and inflation (World Development

Indicators). These variables had no statistically significant relationship to tariff rates, a positive impact on the Sachs-Warner measure of trade liberalization; however, their inclusion never affected the sign or significance of REGIME.

In sum, these results support our claim that the democratization leads to a more open trade regime. This finding was robust to three different measures of regime type. Moreover, this influence was not negligible in any version, even when controlling for many alternative explanations. It also withstands a variety of robustness checks for collinearity, exogeneity, and outliers.

V. Conclusions:

Why countries that long pursued protectionism should suddenly liberalize their trade regimes is an important and underexplored question. Many developing countries began liberalizing trade in the mid 1980s, and the rush to free trade since has been remarkable. While economists have long preached the benefits of free trade, developing countries have only recently begun to heed their advice. Indeed much of the extant literature argues that economic reforms like trade liberalization rarely occur or do so very slowly.

Our central proposition is that a change in the political regime toward more democracy should be followed eventually by a move to liberalize trade. Autocratic political leaders in LDCs can cater to the capital-rich segment of the population because the “selectorate” that picks them is limited. Trade barriers are then imposed on capital-intensive imports so that wealth is redistributed from those who are not part of the selectorate to those who are. Democratization, which implies an increase in the selectorate’s size, changes the calculations of political leaders about the optimal level of

trade barriers; it induces the adoption of trade policies that better promote the welfare of consumers/voters at large, which implies trade liberalization in this context.

Our model is highly stylized and has a number of limitations. One is that it focuses on only one aspect of democracy, electoral control over political leaders. There are other aspects, such as the role of the legislature, the nature of the party system, or the form of electoral rules, which could be important. We think that future research should try to disaggregate regime type further. Our data suggest that autocracies may well vary in the likelihood of economic reform, with single party and military controlled systems being more likely than personalistic ones. The two former types of regimes rely on a broader electorate and are not as able to use protectionism to garner political support. It is likely that the likelihood of reform also varies given the type of democratic institutions in place. Examining the impact of different political institutions on trade policy is an unexplored area of great potential interest.

Another issue is that we view democratization as exogenous. It might be that trade policy exerts an impact on the type of political regime. Although we lag all of our independent variables (from one to three periods), this could be a much longer-term effect. Most models predicting regime type, however, do not include trade policy or even the extent of openness of the economy as a predictor (e.g., Przeworski et. al. 2000; Barro 1997). Moreover, we found no evidence of such an impact in our data; trade policy (lagged) did not predict democracy. And even after instrumenting for democracy, it still seemed to play an important role in explaining the rush to free trade. Regime type matters for trade policy. Democracies choose lower levels of trade barriers, even when holding many other factors constant. The rush to free trade has been strongly associated

with the movement toward democracy. For a broad range of trade policies, more democratic regimes have chosen more open trade policies.

We have tried to control for other political factors that might be related to trade liberalization. By and large these variables did not seem to play a consistent role in explaining trade policy. Although there has been much discussion of the role of economic crises, external pressures and the role of ideas on economic reform, little systematic research has done. The empirical analysis here does not support the conventional wisdom. Neither crises, nor international pressures, nor new ideas seem to account very well for the rush to free trade. Moreover, international institutions which were supposed to foster trade liberalization, such as the GATT/WTO and the IMF, do not appear to be playing that role. As Rose (2002a & b) has argued, the GATT does not seem to promote a more liberal trade policy for most countries; indeed, GATT members were less likely to liberalize in our data. Compared to these factors, the role of domestic political institutions looms large.

In general, more democratic countries tended to be more willing to open their markets to the international economy, even when holding many other factors constant. This suggests that democratization may be helping promote the globalization that has been occurring in the past two decades. As we show relative to trade and as Quinn (2001) has shown relative to capital markets, democracies may be more likely to choose to join the global economy by eliminating the barriers protecting their markets. Democratization may have fostered the increasing globalization of the past two decades. Whether the new democracies will survive and thrive in a globalized world is another issue that should command future research.

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TABLE 1: SUMMARY STATISTICS

Variable	Obs	Mean	Std. Dev.	Min	Max
DATE	5370	1984.5	8.657	1970	1999
TARIFF	907	20.538	15.062	0	102.2
Sachs-Warner	2790	.310	.462	0	1
REGIME	3367	-2.074	6.947	-10	10
ACLP	4187	.300	.458	0	1
DICTATOR	4213	4.561	2.998	1	8
SINGLE PTY	5370	.403	.491	0	1
PERSONAL	5370	.374	.484	0	1
MILITARY	5370	.319	.466	0	1
SIGNED	4008	.146	.354	0	1
BPC	2636	.591	.492	0	1
ECRISIS	3403	.064	.246	0	1
FIVEOP	5012	12.025	.987	10.2	13.2
GATT	5034	.406	.492	0	1
US HEG	5370	.270	.016	.243	.308
GDP PC	3691	2885.512	4645.597	0	44164.5
LN POP	4880	15.107	2.003	10.5712	20.949

TABLE 2: TARIFF RATES

Dependent Variable:	Statutory Tariff Rates	newtar		
	(1)	(2)	(3)	(4)
REGIME	-0.317***			-0.214**
	(0.108)			(0.096)
DICTATOR		-0.718***		
		(0.246)		
ACLP			-1.282	
			(1.278)	
SINGLE PTY				-7.248***
				(1.720)
PERSONAL				5.109***
				(1.451)
SIGNED	0.140	-0.098	0.009	-0.058
	(0.372)	(0.372)	(0.382)	(0.359)
BPC	0.775	0.950	1.029	0.678
	(0.719)	(0.683)	(0.713)	(0.671)
ECRISIS	-0.469	-0.536	-0.516	-0.556
	(0.688)	(0.647)	(0.653)	(0.669)
OFFICE	-0.183***	-0.173***	-0.129**	-0.190***
	(0.057)	(0.058)	(0.058)	(0.056)
GDP PC	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
LN POP	35.016***	29.079***	29.865***	39.757***
	(6.447)	(6.590)	(6.724)	(6.145)
US HEG	22.537	27.269	30.615	18.637
	(18.177)	(18.925)	(19.486)	(16.966)
GATT	2.275**	1.973*	2.340**	2.516**
	(1.159)	(1.070)	(1.052)	(1.153)
FIVEOP	-1.566	-0.656	-0.384	-2.659*
	(1.585)	(1.776)	(1.818)	(1.534)
Constant	2,665.092***	2,704.084***	2,844.722***	2,780.057***
	(338.316)	(329.609)	(333.032)	(328.162)
Observations	694	732	732	694
# of countries	97	108	108	97
R2	0.80	0.79	0.79	0.81
Wald chi2	791	16422	2997	1097
Prob > chi2	0.00	0.00	0.00	0.00

Panel corrected standard errors in parentheses. Country fixed effects, time trend, AR(1) correction included. All RHS variables lagged one period. * significant at 10%; ** significant at 5%; *** significant at 1%.

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TABLE 3: TARIFF RATES

Dependent Variable:	Statutory Tariff Rates	newtar			
	(1)	(2)	(3)	(4)	(5)
REGIME L1	-0.339***	-0.317***			-0.089^{^^^}
	(0.108)	(0.108)			(0.157)
REGIME L2			-0.313***		-0.267^{^^^}
			(0.102)		(0.181)
REGIME L3				-0.176**	-0.084^{^^^}
				(0.084)	(0.132)
SIGNED	0.144	0.140	-0.085	-0.118	-0.055
	(0.370)	(0.372)	(0.384)	(0.386)	(0.367)
GDP PC	0.001**	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ECRISIS	-0.610	-0.469	-0.478	-0.535	-0.590
	(0.675)	(0.688)	(0.675)	(0.703)	(0.737)
BPC	0.874	0.775	1.108	1.043	0.874
	(0.713)	(0.719)	(0.770)	(0.720)	(0.746)
LN POP	33.643***	35.016***	32.061***	31.947***	34.772***
	(6.382)	(6.447)	(6.805)	(6.327)	(6.048)
OFFICE	-0.184***	-0.183***	-0.218***	-0.147**	-0.235***
	(0.058)	(0.057)	(0.060)	(0.059)	(0.062)
US HEG		22.537	23.157	32.570*	21.966
		(18.177)	(18.251)	(19.173)	(18.482)
FIVEOP		-1.566	-1.124	-0.272	-1.271
		(1.585)	(1.515)	(1.585)	(1.530)
GATT		2.275**	2.646**	2.807***	2.515**
		(1.159)	(1.146)	(1.066)	(1.121)
Constant	2,732.517***	2,665.092***	2,746.501***	2,932.983***	2,655.966***
	(240.701)	(338.316)	(322.158)	(301.376)	(289.834)
Observations	694	694	692	691	671
Countries	97	97	98	98	97
R2	0.80	0.80	0.80	0.79	0.81
Wald chi2	7504	791	811	165599	1976
Prob > chi2	0.00	0.00	0.00	0.00	0.00

Panel corrected standard errors in parentheses. Country fixed effects; time trend; AR(1) correction included. All RHS variables lagged one period. * significant at 10%; ** significant at 5%; *** significant at 1%. ^^ jointly significant at 1%.

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TABLE 4: SACHS-WARNER TRADE LIBERALIZATION

Dependent Variable:	Sachs-Warner Open	dopen_wacz2			
	(1)	(2)	(3)	(4)	(5)
REGIME	0.317***	0.367***			0.213^^
	(0.108)	(0.129)			(0.183)
DICTATOR			0.574***		
			(0.206)		
ACLP				3.724***	
				(1.282)	
MILITARY					1.928^^
					(1.462)
PERSONAL					-4.814***^^
					(2.254)
SIGNED	-0.249	-0.780	-1.132*	-1.136*	-0.833
	(0.568)	(0.641)	(0.647)	(0.646)	(0.684)
OFFICE	-0.075	-0.083	-0.120	-0.093	-0.141
	(0.101)	(0.102)	(0.097)	(0.091)	(0.164)
BPC	-0.200	-0.019	-0.269	-0.243	-0.132
	(0.671)	(0.775)	(0.756)	(0.778)	(0.802)
ECRISIS	-0.664	-0.531	-1.255	-1.232	-1.177
	(0.976)	(1.108)	(1.028)	(1.027)	(1.147)
GDP PC	-0.000	-0.000	-0.001	-0.001	-0.001
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
LN POP	43.026***	69.062***	71.310***	72.752***	75.671***
	(9.192)	(15.040)	(15.006)	(15.234)	(16.173)
GATT		-4.900***	-6.148***	-5.830***	-6.436***
		(1.650)	(1.773)	(1.728)	(2.007)
US HEG		-55.151**	-56.950**	-57.317**	-62.852**
		(24.594)	(23.199)	(23.358)	(25.607)
FIVEOP		-2.632	-3.460*	-2.620	-2.080
		(1.826)	(1.967)	(1.782)	(1.913)
Observations	872	872	913	913	872
LR Chi2	854.45	868.88	919.31	920.43	873.24
Prob> Chi2	0.000	0.000	0.000	0.000	0.000
Log likelihood	-41.54	-34.33	-35.44	-34.88	-32.15

Conditional logit with country fixed effects & decade fixed effects. A natural spline function with three knots & time since last opening occurred included to correct for serial dependence. All RHS variables are lagged one period. Two-tailed tests with asymptotic z-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%; ^^ jointly significant at 5%. sw0103d

TABLE 5: SACHS-WARNER TRADE LIBERALIZATION

Dependent Variable:	Sachs-Warner Openness	dopen_wacz2		
	(1)	(2)	(3)	(4)
REGIME L1	0.367***			0.460***^^
	(0.129)			(0.162)
REGIME L2		0.140		-0.141^^
		(0.106)		(0.152)
REGIME L3			0.057	0.033^^
			(0.093)	(0.107)
SIGNED	-0.780	-1.141*	-1.178*	-0.802
	(0.641)	(0.635)	(0.651)	(0.670)
OFFICE	-0.083	-0.093	-0.110	-0.098
	(0.102)	(0.090)	(0.085)	(0.099)
BPC	-0.019	-0.225	-0.187	-0.004
	(0.775)	(0.746)	(0.739)	(0.786)
ECRISIS	-0.531	-0.578	-0.510	-0.504
	(1.108)	(1.040)	(1.019)	(1.124)
GDP PC	-0.000	-0.001	-0.001	-0.000
	(0.002)	(0.002)	(0.002)	(0.002)
LN POP	69.062***	62.960***	58.863***	64.756***
	(15.040)	(13.658)	(12.849)	(15.334)
GATT	-4.900***	-4.929***	-4.796***	-4.679***
	(1.650)	(1.631)	(1.618)	(1.656)
US HEG	-55.151**	-46.993**	-43.472**	-54.287**
	(24.594)	(22.345)	(22.084)	(25.314)
FIVEOP	-2.632	-3.373*	-2.879*	-1.610
	(1.826)	(1.939)	(1.727)	(1.973)
Observations	872	873	873	842
LR Chi2	868.88	863.20	861.32	823.26
Prob > Chi2	0.000	0.000	0.000	0.000
Log likelihood	-34.33	-37.42	-37.96	-33.21

Conditional logit with country fixed effects & decade fixed effects. A natural spline function with three knots & time since last opening occurred used to correct for serial dependence. All RHS variables are lagged one period. Two-tailed tests with asymptotic z-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%; ^^ jointly significant at 5%.

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TABLE 6: INSTRUMENTAL VARIABLE TARIFF RATES

Instrumental Variable Regression:	Statutory Tariff Rates and REGIME
	newtar
REGIME instrument	-3.508**
	(1.650)
BPC	2.225
	(1.950)
ECRISIS	0.092
	(2.219)
GDP PC	-0.001
	(0.001)
OFFICE	-1.380**
	(0.543)
SIGNED	0.197
	(1.431)
LN POP	22.580
	(17.681)
US HEG	49.390
	(47.186)
GATT	-2.468
	(3.726)
FIVEOP	-1.000
	(4.276)
Constant	688.840
	(1,359.449)
Observations	466
R2	0.85
Wald Chi2	1890.71
Prob> Chi2	0.000

Two-stage least squares (xtivreg) estimates with country fixed effects, time trend, all variables lagged one period. Instruments for REGIME are percent competing secondary school and average age of political parties in system, lagged. Uncentered R2 reported. Asymptotic z statistics in parentheses; two tailed tests: * significant at 10%; ** significant at 5%; *** significant at 1%.

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