ESSAYS ON TRADE OPENNESS AND AUTHORITARIAN SURVIVAL

By

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ABSTRACT

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This dissertation consists of three essays that integrate theories in the fields of international political economy and democratization to advance the understanding of trade politics under dictatorships. The core argument is that dictators can utilize trade policies to prolong their political survival. Thus, economic globalization inhibits, not facilitates, democratization.

In the first essay, I address a substantive question: What factors motivate dictators to expand the trade regime of their countries? Scholars have been focusing on the difference in trade openness between democracies and dictatorships. They conclude that democracies have more trade openness than do autocracies. However, these works fail to systematically assess the high variation of trade openness among dictatorships. In addition, from the perspective of modernization theory, trade-induced economic growth may facilitate democratization in dictatorships. Accordingly, it looks like committing political suicide for political leaders of some authoritarian countries, such as China and Vietnam, to significantly engage their countries in the world economy. Based on the Heckscher–Ohlin model of international trade and theories of democratic transitions, I argue that rising inequality is a key determinant for dictators to expand the trade regimes. In other words, inequality is a cause, rather than a consequence, of trade openness under dictatorships.

Building on the argument of the first essay, I expect that increase in trade openness not only reduces inequality but also helps dictators strengthen their authoritarian rule. Thus, my second essay focuses on the effects of signing preferential trade agreements (PTAs) on inequality and authoritarian survival. In this chapter, I demonstrate that once a dictatorship successfully signs PTAs with other countries, it can further reduce both economic inequality and prospects of regime breakdown. This finding explains why the some authoritarian countries, China in particular, become more resilient against democratization after signing numerous PTAs.

The third essay investigates whether types of protectionism also differ by types of authoritarianism. The current literature finds that single-party dictatorships, due to their larger winning coalitions, are more open to trade with lower tariffs than other types of authoritarian regimes, such as personalistic or military dictatorships. In this essay, I offer a caveat to this research agenda by showing that larger sizes of winning coalition also result in more complicated tariff schedules of single-party dictatorships. Those complicated tariff schedules help dictators protect more members of their winning coalitions and consolidate their authoritarian rule under single-party dictatorships.

By integrating dictators' strategic choice of trade policies into this analytic framework, I conclude that trade liberalization leads to authoritarian consolidation. Overall, my dissertation offers an economic anatomy of authoritarian survival to the ongoing research agenda on dictatorships in the age of globalization.

To my late grandmother and late sister, who taught me virtues of courage, kindness, and fortitude.

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CHAPTER 1
INTRODUCTION

This dissertation investigates trade politics under dictatorships.[1] The literature has developed theories to explain how different democratic institutions result in varieties of trade policies (Grossman and Helpman 1996; Rogowski 1987), and how trade policies differ between democracies and autocracies (Mansfield, Milner, and Rosendorff 2000). Yet, we have limited understanding about the determinants of trade policymaking in authoritarian countries. However, it is crucial for researchers to complete this missing piece, because authoritarian countries, as Figure 1.1 illustrates, have been further involved in the world economy in the age of globalization.[2] Although democracies tend to trade more than autocracies (Aidt and Gassebner 2010; Milner and Kubota 2005), Figure 1.1 suggests that the average trade volume of autocracies began to increase since the early 1990s, especially after China entered the World Trade Organization in late 2001.

Nevertheless, the surge of autocracies' trade in the 21th century is not solely contributed by China. In Figure 1.2, I plot each country's average trade volume against its average level of democracy during 2000 and 2008.[3] As Figure 1.2 shows, many autocracies

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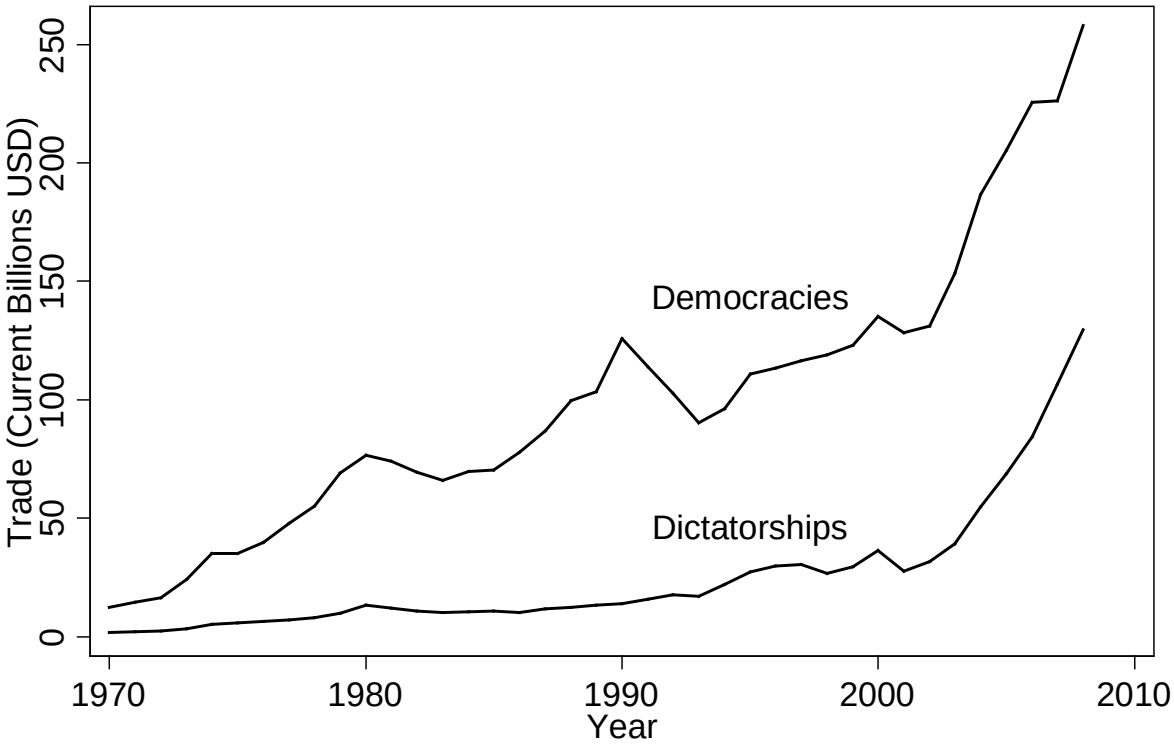
[1] Throughout this dissertation, I use dictatorship, autocracy, and authoritarian country interchangeably.

[2] In Figure 1.1, I use a binary variable to measure democracy and dictatorship based on the dataset of Global Political Regimes constructed by Geddes, Wright, and Frantz (2012).

[3] In Figure 1.2, I use a continuous variable to measure democracy and dictatorship. The measure of level of democracy is taken from the Polity IV Project of Marshall and Jaggers (2002) and normalized to an interval between 0 and 1, with 0 indicative of perfect autocracy and 1 indicative of perfect democracy.



Sources: Correlates of War Project; Global Political Regimes (Geddes et al. 2011)

Figure 1.1 Average Trade Volume by Regime Types, 1970–2008

trade as much as their democratic counterparts, and some democracies even have lower trade than other autocracies. In other words, although the literature concludes that democracies, on average, trade more than autocracies, it is still unclear why autocracies trade and some of them trade a lot.

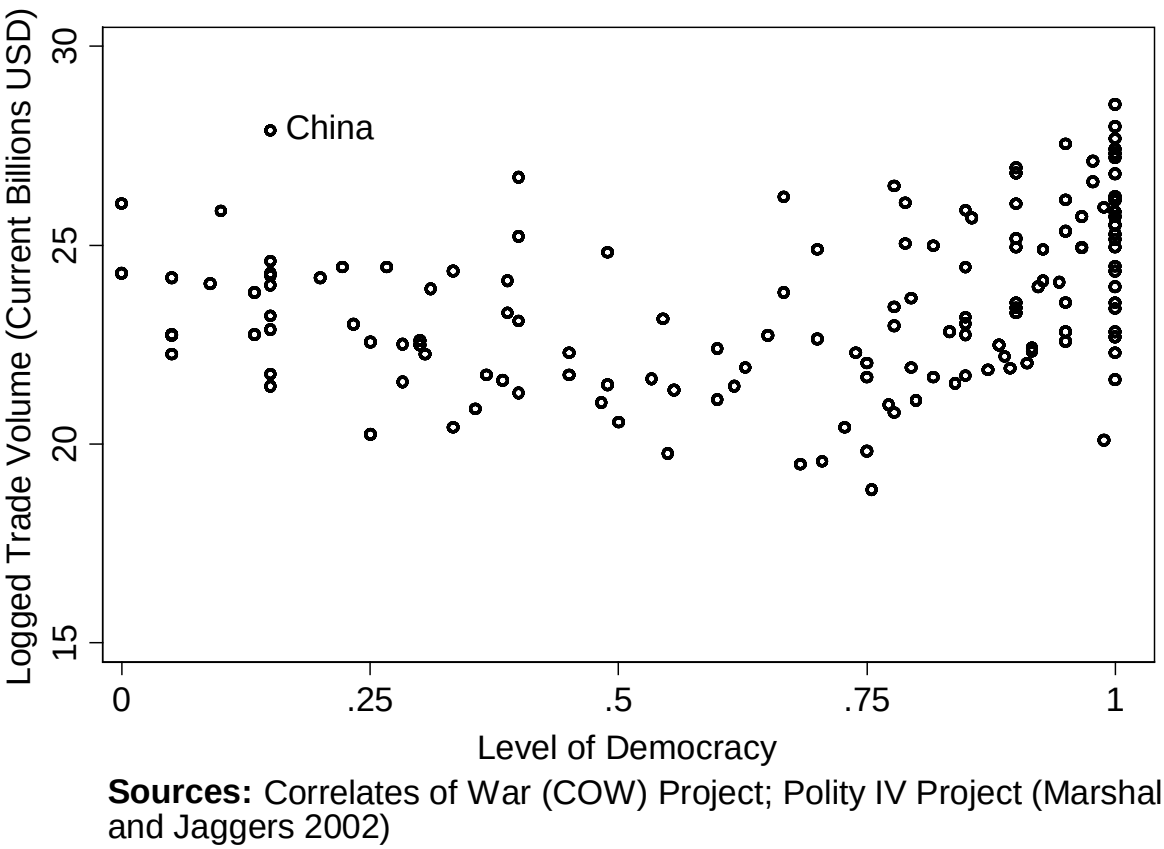


Figure 1.2 Average Trade Volume and Level of Democracy, 2000–2008

Inspired by the variation of trade openness among dictatorships, this dissertation investigates the following three research questions: First, why do some authoritarian leaders expand trade regimes of their countries while others do not? Second, what are the consequences of trade openness on authoritarian politics? Third, does the pattern of protectionism differ by types of authoritarianism? In this dissertation, I argue that the logic of political survival can provide a theoretical framework to answer all of the three questions. Specifically, authoritarian leaders can utilize trade policies, such as signing preferential trade agreements or differentiating tariffs schedules, to secure their incumbency. In this introductory chapter, I will elaborate on how to apply the logic of

political survival to analyze trade politics under dictatorships.

1.1 Three Puzzles about Trade Openness under Dictatorships

The main puzzle that motivates this dissertation is the variation of trade openness across authoritarian countries. On the one hand, scholars argue that democracies are less able to sustain protectionism than autocracies, because electoral competition makes political leaders no longer able to rely on rents created by protectionism when financing their incumbency. Instead, they have to expand the trade regimes of their countries to benefit more citizens and garner more political support (Bueno de Mesquita et al. 2005; Milner and Kubota 2005).

On the other hand, however, proponents of modernization theory contend that the economic growth induced by trade openness may promote democratization (Lipset 1959), because the newly rich middle class will demand more political rights to protect their property from state intervention (Ansell and Samuels 2010; Moore 1966). Thus, authoritarian leaders may intentionally isolate their countries from the world market and trade less than democracies do (Aidt and Gassebner 2010; Banerji and Ghanem 1997).

However, there is an inconsistency between theory and evidence regarding trade openness among authoritarian and democratic countries. Scholars do find that democracies tend to trade more than their autocracies. Meanwhile, many dictatorships also have high levels of trade openness. If more trade implies more surrender of protectionism rents, and if trade-induced economic growth facilitates democratization, then why do some authoritarian countries still trade a lot more than many democracies? Obviously, the current literature fails to explain the huge variance of trade openness

among authoritarian countries. Therefore, we need a theory to answer the following questions: Why do some authoritarian leaders choose to open their trade regime while others do not? Are those authoritarian leaders choosing to open the trade regime not afraid of being threatened by the forces demanding democratization? Or, do they have other concerns that enforce them to open their trade regimes, regardless the threats of democratization? I call this set of questions the *trade openness puzzle*.

Answers to the *trade openness puzzle* can not only resolve the inconsistencies between theoretical implications and empirical evidence discussed above, but also help researchers and policymaker to better understand the normative dimension of trade openness. Specifically, theories of international trade have demonstrated that engaging in international trade eliminates price distortion as well as deadweight loss generated by protectionism, and thereby enhances the aggregate welfare of both trading countries (Krugman and Obstfeld 2006). This effect of welfare enhancement is the main ground for politicians and economists to promote free trade after the Second World War (Irwin 1996, 2009). Although some other scholars have forcefully criticized the "dark side" of free trade (Stiglitz 2003), such as the deteriorated terms of trade and widened economic inequality in developed countries, their criticisms mainly center around the distributional effects and preconditions of free trade, not on free trade *per se* (Rodrik 1997).

More importantly, there is a normative reason to study trade politics under dictatorships, because over one-third of the world's population lives in authoritarian countries (The Economist 2010). The move to free trade would generate significant political and economic consequences for those citizens' day-to-day life.

The *trade openness puzzle* is related to what scholars have been debating now:

Whether or not trade openness will promote democratization in authoritarian countries. Empirical evidence is inconclusive regarding this question (Milner and Mukherjee 2009). Take East Asian countries for example. One the one hand, some East Asian countries, including Taiwan and South Korea, adopted export-oriented trade policy and democratized after their economies prospered in the late 1980s. Both cases suggest that trade openness may facilitate democratization. On the other hand, however, there are still other authoritarian countries with extreme high trade openness in East Asia, including China, Malaysia, and Singapore. Political scientists even find that the authoritarian control in China and Malaysia becomes more resilient after both countries further engage their economies in the world market (Nathan 2003; Pepinsky 2009).

In addition to East Asian countries, empirical results of large-N cross-national studies are inconclusive on the relationship between trade openness and democratization. On the one hand, some scholars find evidence to support the proposition that trade fosters democratization (Eichengreen and Leblang 2008; Epstein et al. 2006). On the other hand, however, others provide counterevidence to challenge their findings (Li and Reuveny 2003; Teorell 2010). As Milner and Mukherjee (2009, 170) summarize, "More sophisticated empirical work needs to be done to carefully evaluate the effect of trade openness on democracy in developing countries."

In this dissertation, I regard these inconsistent results about the relationship between trade openness and democratization as the *democratization puzzle*. Similar to the *trade openness puzzle,* there are both positive and normative reasons to investigate this *democratization puzzle*. First, answers to the *democratization puzzle* can advance the understanding of *trade openness puzzle*. If trade facilitates democratic transitions, then we

can explain why many authoritarian countries stay isolated from the world economy. By contrast, if trade strengthens authoritarianism under dictatorships, then it becomes theoretically intriguing that many dictatorships still embrace protectionism.

Second, the issue on whether trade facilitates or inhibits democratization matters to ordinary citizens under dictatorships, since transitions to democracies usually enhanced politicians' accountability as well as citizens' welfare, such as lower infant mortality rates and better education opportunities (Gerring, Thacker, and Alfaro 2012; Stasavage 2005). In other words, answers to the *democratization puzzle* give a moral foundation for developed countries to promote free trade among developing and less developed countries. In the next section, I will elaborate on how to deal with this *democratization puzzle* from the theoretical perspective of political survival.

The third puzzle this dissertation intends to explore is the relationship between protectionism and the typology of dictatorships. Scholars in the field of comparative democratization have proposed many topologies to classify dictatorships, and Geddes' typology is widely applied in the literature. Specifically, Geddes (1999a, 1999b) argues that there are four types of dictatorships: Personalistic, military, monarchy, and single-party dictatorships, Furthermore, she claims that each type of dictatorships generates its own policy outcomes. For instance, Geddes (1999b, 135) finds that single-party dictatorships usually have longer horizons of regime survival, because "their institutional structures make it relatively easy for them to allow greater participation and popular influence on policy without giving up their dominant role in the political system." By contrast, other scholars find that personalistic dictatorships engage in less efficient use of foreign aids as well as more corruption (Chang and Golden 2010; Wright 2010), because personalistic

dictators have to maintain smaller sizes of constituencies and perceive shorter time horizons of their incumbency.

Based on Geddes' typology of dictatorships, many scholars have demonstrated that single-party dictatorships are more open to trade with lower tariffs than other types of dictatorships (Hankla and Kuthy 2012; Milner and Kubota 2005). The causal mechanism is that political leaders under single-party dictatorships have to maintain larger winning coalitions to sustain their incumbency. Since politicians are less able to finance their incumbency with private goods when the sizes of their winning coalition increase, they have to expand trade regimes to benefit more citizens. However, one remaining puzzle is whether we can conclude that single-party dictatorships are less protectionism-oriented given their higher trade openness and lower tariff rates. As Kono (2006) has forcefully demonstrated, protectionism can be exercised in more sophisticated ways beyond mean tariff levels when countries face a higher demand of free trade. Specifically, although democracies have lower tariffs than dictatorships due to electoral competition, Kono (2006) finds that they establish more non-tariff trade barriers that are more obscure to voters. Since dictatorships generally rely more on protectionism to sustain their authoritarian rule (Aidt and Gassebner 2010), it might be the case that single-party dictatorships just use other forms of protectionism when they have to lower their mean tariffs.

Figure 1.3 further illustrates the issue of tariffs of dictatorships. I plot each dictatorship's mean tariff against its tariff dispersion during 2000 and 2009. As illustrated in Figure 1.3, single-party dictatorships have lower mean tariffs, but at the same time their tariff schedules seem to be more dispersed than other types of dictatorships. Although a lower mean tariff is indicative of less protectionism, a higher level of tariff dispersion is

regarded as protectionism because it suggests that some products receive more protection than others (Deardorff 2006). As a result, it is puzzling to observe that single-party dictatorships have lower but more dispersed tariffs. I call these inconsistent trade policies as the *tariff puzzle*.

The *tariff puzzle* is related to the first two puzzles I introduced in this section. It also provides additional evidence to suggest that *trade openness puzzle* is intertwined with the *democratization puzzle*. As single-party dictatorships are found to have longer time horizon of regime survival with more trade openness, it is argued that regime longevity contributes to trade openness under single-party dictatorships (Hankla and Kuthy 2012; Milner and Kubota 2005). Both arguments imply that trade would eliminate, not facilitate, the momentum of democratization under single-party dictatorships. Therefore, answers to the *tariff puzzle* may further suggest that trade policy can be used to consolidate politicians' incumbency. I will elaborate on how the logic of political survival can explain this *tariff puzzle* in the next section.

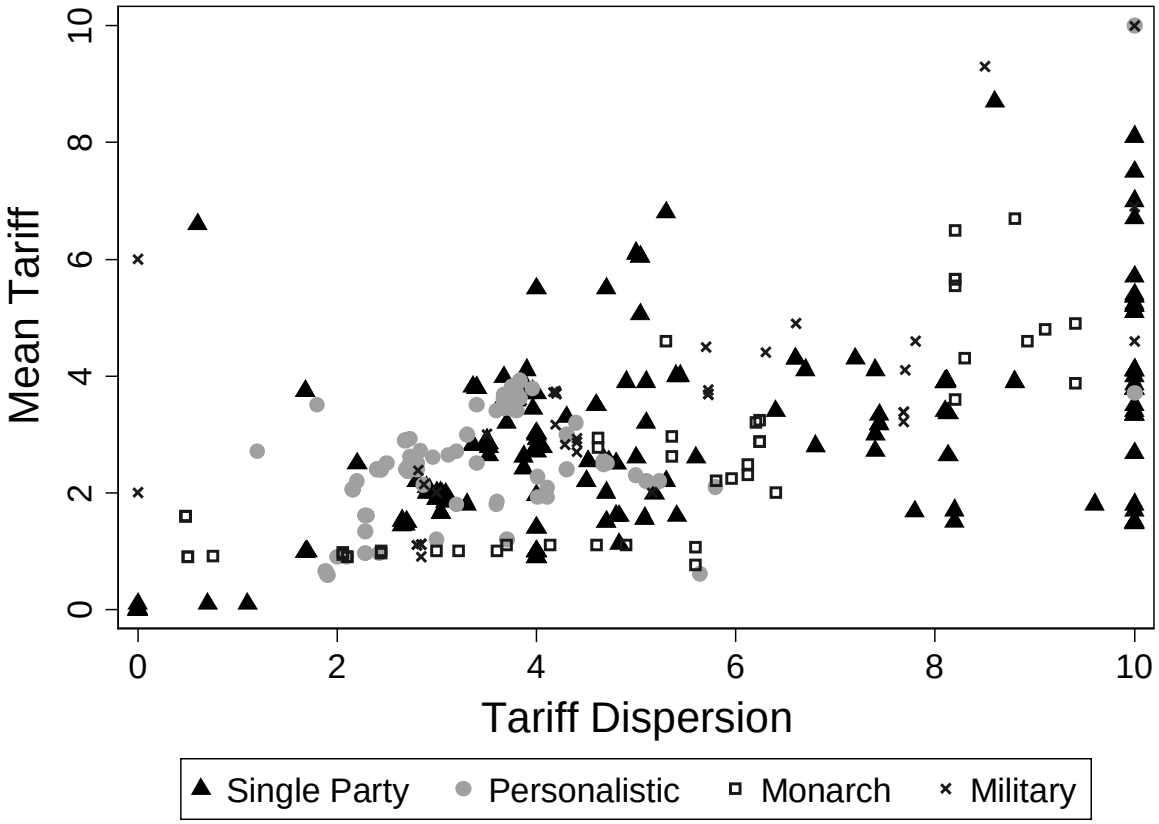


Figure 1.3 Mean Tariff and Dispersion of Tariff under Dictatorships

1.2 The Arguments

The three puzzles about the relationships between trade openness and authoritarianism presented in the previous section are inter-connected. Specifically, they can be explained under the logic of political survival in authoritarian regimes. In the past two decades, scholars specializing in the field of comparative democratization have been focusing on the ways how dictators maintain their dominant incumbency and achieve "authoritarian consolidation." (e.g., Brownlee 2007; Gandhi 2008b; Levitsky and Way 2010; Magaloni 2006). For example, one of the arguments is that the establishment of quasi-democratic political institutions, legislatures and one-party dominance in particular,

helps authoritarian leaders not only signal credibility but also co-opt or collapse the opposition forces. Thus, the democratization prospects in those countries are doomed as those quasi-democratic institutions are established.

The argument that quasi-democratic institutions would consolidate authoritarian rule sounds counterintuitive, but it is in fact reasonable after further investigation. Like their counterparts in democracies, politicians in authoritarian countries have to get compliance from citizens in order to stay in power (Tullock 1987). However, there are usually no certain rules, such as regular elections, to replace top political leaders in authoritarian countries. Thus, the main task of authoritarian leaders is to make sure that their ruling status is solid enough to avoid coups, rebellions, or revolutions (Brownlee 2009; Tullock 1987). Put differently, the key to sustain political survival for authoritarian leaders is to make their potential challengers' costs of involving in opposition movements outweigh the benefits of successful replacing the incumbent dictators (Bueno de Mesquita et al. 2005).

Wintrobe (1998) synthesizes this issue of political survival as the dictator's choice between repression and loyalty. On the one hand, dictators can rely on violence, such as secret police or military, to deter and destroy potential challengers. On the other hand, they can enhance citizens' benefits of living under the authoritarian control by providing patronage or public goods in exchange for their political support. Thus, the question is why some authoritarian leaders can, while others cannot, make credible threats of initiating violence and/or commitments of improving benefits in front of their citizens to survive the challenges against their ruling status.

Scholars have been investigating the commitment problem of authoritarian survival for decades (Myerson 2008; Olson 1993; Tullock 1987; Wintrobe 1998), and one

prevalent perspective focuses on the role of political institutions (Gandhi 2008b; Levitsky and Way 2002; Svolik 2009). Overall, this institutionalist's approach emphasizes on the intention of authoritarian leaders to make credible commitment through establishing political institutions, such as judiciaries, legislatures, or regular elections. With political institutions, authoritarian leaders not only "bind their hands" to limit their capacity of seizing citizens' property (North and Weingast 1989), but also share their power as a way to co-opt opposition forces in exchange for the minimum stability of the authoritarian control (Gandhi and Przeworski 2006, 2007). Using Olson's terminology, we can say some authoritarian leaders establish institutions to become "stationary bandits" who protect their citizens from being looted by other "roving bandits" (Olson 1993, 2000). Thus, those dictators belonging to the type of stationary bandits can get the compliance of their citizens and successfully dominate their authoritarian regimes.

Similar to the institutionalist's argument discussed above, in this dissertation I argue that trade policy is also included in the toolbox of dictators to sustain their political survival. Thus, my answer to the *trade openness puzzle* is straightforward: Authoritarian leaders choose to expand their trade regimes to ease the pressure of democratization incurred by rising economic inequality. Scholars have been arguing that economic inequality fosters the momentum of democratization. In particular, as the median voter is the voter whose preference determines the results of election (Downs 1957), the median voter may demand more redistribution from the rich people as income inequality increases (Acemoglu and Robinson 2005; Boix 2003; Meltzer and Richard 1981). In other words, higher economic inequality gives the poor more incentives to demand more redistribution, resulting in democratic transitions that empower the poor median voters to set higher

taxes rates on their rich fellow citizens.

Although the role of median voter in authoritarian regimes is usually absent or weak due to non-free or unfair elections (Schedler 2006), the impacts of economic inequality is still a significant issue in authoritarian regimes, since high inequality implies "enough of a redistributive reward to make revolutionary activity extremely profitable" (Schofield and Levinson 2008, 269). One recent study also demonstrates that countries with high inequality are more likely to engage in organized conflicts (e.g., civil wars and armed violence), since the poor people expect that they can significantly benefit from expropriating through violence (Boix 2008). Accordingly, to prevent inequality from fostering anti-regime momentum, authoritarian leaders use either "carrots" to pacify or "sticks" to suppress the poor people (Gallagher and Hanson 2009), and trade openness belongs to the former category.

In this dissertation, I argue that increases in inequality compel authoritarian leaders to consider expanding their trade regimes as an alternative to redistribution without taking money from the rich. According to the Heckscher-Ohlin model, international trade will benefit domestic abundant production factors, because the principle of comparative advantage makes the production costs lower for the abundant factor (Krugman and Obstfeld 2006). In addition, the owners of abundant factor will earn higher wages because their products can be exported to other countries where the factor used in this product is scarce. This effect is articulated in the well-known Stopler-Samuelson theorem (Stolper and Samuelson 1941).

Based on the implications of Heckscher-Ohlin model and the Stopler-Samuelson theorem, I develop the following theory to explain the *trade openness puzzle*. Since

authoritarian countries are usually abundant with poor and unskilled labors (Milner and Kubota 2005), engaging in international trade brings wage premiums to the poor, alleviate economic inequality, and then eases the pressure of democratization. In addition, while direct income transfer may incur the backlash or capital flight of the rich (Boix 2003), expanding trade regimes helps authoritarian leaders enrich the poor without taxing the rich in their countries. As a result, trade openness is a better choice than taxation to address rising economic inequality in authoritarian regimes, especially for those with abundant labors.

In short, this dissertation focuses on how increases in inequality facilitate trade openness that can stop inequality from rising. Previous studies mainly focus on the political and economic consequences of inequality level, but they ignore the impacts of changes in inequality. However, rising inequality may be more salient than high inequality for authoritarian politics. Authoritarian leaders may be well-equipped to deal with opposition forces when inequality is high, but when inequality is higher, it means that they need to invest more to prevent potential uprisings. In short, increases in inequality change the equilibrium conditions of the status quo and enforce the dictators to update their policy tools to ensure their ruling status.

To sum up the discussions in this section so far, my hypothesis about the *trade openness puzzle* can be formulated as follows:

- **Hypothesis 1:** *As income inequality increases, trade openness also increases in authoritarian countries.*

Based on Hypothesis 1, I derive another hypothesis to disentangle the *democratization puzzle*. While the literature is inconclusive on whether trade will facilitate democratic

transitions, Hypothesis 1 implies that trade expansion would be beneficial to the incumbency of political leaders for its alleviation of inequality. Nevertheless, it is difficult to empirically test this implication of Hypothesis 1, since there is an issue of endogeneity between trade and democratization (Milner and Mukherjee 2009).

Scholars have applied econometric techniques to deal with the endogeneity between trade and democratization. For example, Eichengreen and Leblang (2008) estimate with instrumental variable models to show that trade facilitates democratization. This finding is further concurred by López-Córdova and Meissner (2008) when they use the generalized method of moments (GMM) estimator. However, the empirical models estimated by Li and Reuveny (2003) and Teorell (2010) suggest that more trade further impedes the prospects of democratization. In addition, Ahlquist and Wibbels (2012) present their empirical results derived from dynamic probit models and conclude that trade expansion does not affect democratic transitions. Again, those inconclusive findings generate the *democratization puzzle*.

In this dissertation, I use signing preferential trade agreements (PTAs) as a proxy of trade to disentangling the *democratization puzzle*. Note that my answers to the *trade openness puzzle* suggest that trade policy is included in politicians' toolbox to reduce inequality and secure their incumbency. Since PTAs can further boost the trade volume of their signatories (Baier and Bergstrand 2007), authoritarian leaders may intentionally sign PTAs with other countries to prolong their political survival.

Based on this reasoning, the *democratization puzzle* can be explained by the following causal mechanism. When the poor people's demand for redistribution is met via gains from trade induced by PTAs, authoritarian leaders can neutralize democratization forces and

secure their incumbency. Thus, I derive the following two hypotheses regarding the *democratization puzzle*:

- **Hypothesis 2**: *Signing PTAs reduces economic inequality under dictatorships.*
- **Hypothesis 3**: *Signing PTAs reduces the probability of authoritarian breakdown.*

Strictly speaking, while the first two puzzles emphasize on determinants and consequences of trade openness, the main focus of the *tariff puzzle* is protectionism under dictatorships. Nevertheless, we can still apply the logic of political survival to explain the *tariff puzzle*. In this dissertation, I propose the following causal mechanism to explain this puzzle. According to the selectorate theory (Bueno de Mesquita et al. 2005), authoritarian leaders subject to larger winning coalitions have to reduce the overall tariffs. However, it does not mean that they will totally renounce protectionism and exclude those special interests groups from their winning coalitions. Instead, they need to further differentiate their protection on members of their winning coalitions. Thus, a dispersed tariff schedule is just a result from differentiated responses of authoritarian leaders to members and non-members of their winning coalitions.

Meanwhile, it should be emphasized that authoritarian leaders' capacity to differentiate their responses to special interests groups is also determined by their capacity to exercise their authoritarianism. If a dictatorship is more capable of exercising authoritarianism, defined by its capacity to repress citizens and the level of institutionalize autocracy, to intervene civil society, it is more capable of levying taxes to maximize its revenues. Since tariffs are taxes on imports, dictatorships with higher levels of authoritarianism would be more able to set tariff schedules that consist of differentiated and dispersed tariff rates.

To summarize my discussions on the *tariff puzzle,* in this dissertation I will test the following two hypotheses regarding tariffs dispersion under dictatorships:

- **Hypothesis 4:** *Tariff schedules are more dispersed under single-party dictatorship than under personalistic, military, or monarchy dictatorships.*
- **Hypothesis 5:** *The level of tariff dispersion increases with the level of authoritarianism.*

1.3 Outline of the Dissertation

To empirically test the hypotheses proposed in the previous section, this dissertation is organized as follows. Following this introductory chapter, Chapter 2 investigates how authoritarian leaders employ trade openness as a response to rising inequality. Based on the Heckscher-Ohlin model of international trade and models of democratic transitions, I argue that unskilled laborers under authoritarian regimes can benefit from engaging in international trade thus becoming more compliant to the authoritarian rule as their countries integrate into the world economy. Accordingly, dictators in labor-abundant countries expand trade to neutralize democratization threats initiated by rising inequality. This argument is supported by the data of 80 odd authoritarian regimes from 1963 to 2003 and different model specifications. More importantly, the issue of endogeneity between trade and inequality is also addressed by dynamic panel data and instrumental regression models in this chapter. In short, the findings in Chapter 2 suggest that inequality is a cause, rather than a consequence, of international trade in authoritarian regimes.

Chapter 3 explores consequences of signing preferential trade agreements (PTAs) in authoritarian countries. I argue that dictators choose to sign PTAs as a means of

consolidating their authoritarian rule. Specifically, PTAs reduce economic inequality by enriching unskilled poor laborers without taxing rich citizens under dictatorships. Furthermore, the gains from trade introduced by PTAs help dictators acquire more compliance from citizens and prolong their authoritarian rule. Thus, the threat of democratization triggered by widening economic inequality is neutralized after signing PTAs. With data from 88 authoritarian regimes from 1969 to 2000, I demonstrate that signing PTAs reduces both economic inequality and the probability of authoritarian breakdown, thereby contributing to ongoing debates on the effects of economic globalization on democratization.

While the literature concludes that single-party dictatorships are more open to trade with lower tariffs, Chapter 4 of this dissertation investigates why tariffs under single-party dictatorships are more dispersed and complicated than other types of dictatorships. I argue that when dictators have to maintain larger winning coalitions under single-party dictatorships, they still need to satisfy the demand for protection from special interests groups included in their winning coalitions. Accordingly, dictators under single-party dictatorships set *ad hoc* tariffs in response to different members of their winning coalitions. In addition, I argue that political leaders under dictatorships with more consolidated authoritarianism, defined by their coercive capacity and the level of authoritarian institutionalization, are more capable of designing tariff schedules to optimally collect revenues from imports. Both arguments on the relationship between tariff dispersion and authoritarian politics are supported by the panel data on 42 dictatorships from 2000 to 2009. The findings of this chapter contribute to the emerging research on authoritarian trade politics in the age of globalization.

In Chapter 5, I discuss implications of main findings in this dissertation and offer some concluding remarks. Overall, this dissertation offers an economic anatomy of trade politics under dictatorships to studies on the authoritarian resilience in the age of globalization.

1.4 Contributions

Based on the discussions in this chapter, this dissertation has the following contributions to the literature of democratization and international political economy.

First, this dissertation can clarify the relationships among inequality, trade openness, and authoritarian survival. The current debates over the relationship between trade openness and democratization neglect the role of inequality. However, the democratization literature argues that high inequality fosters the momentum of democratic transition, so it is necessary to combine both fields of studies together to resolve the theoretical and empirical inconsistencies about the impacts of trade openness on democratization.

This dissertation disaggregates this issue in two steps. On the one hand, it agrees that inequality may result in political instability in authoritarian countries, so dictators have to find some ways to release or oppress the pressure of redistribution. On the other hand, however, it argues that the pressure of redistribution can be offset by means of trade openness instead of democratization under dictatorships. Since the poor's demand for redistribution can be met through trade openness, politicians can use trade policies, including signing PTAs, to consolidate their incumbency via distributing gains from trade to the abundant poor laborers.

The theoretical argument that trade openness can be used to sustain political survival

is crucial for the current debates over the impacts of globalization on democratization. In particular, it offers a novel perspective on the absence of democratic transitions in many globalized authoritarian states. That is, involvement in economic globalization strengthens, not weakens, authoritarianism with gains from trade, because citizens are benefited from international trade and become more compliant to the state. Take China for example. The authoritarian control in China seems to become more resilient against democratization as China increases its involvement in the world economy after the early 1990s (Nathan 2003), and its middles class becomes more conservative as Chinese economy grows (Unger 2006). Thus, this dissertation challenges the implication of modernization theory elaborated by Lipset (1959) as well as the theory of "democratization from the outside-in" proposed by scholars of international relations (Pevehouse 2005).

Second, this dissertation contributes to the understanding about the pattern of protectionism in different types of authoritarian regimes. While the literature concludes that single-party dictatorships have lower mean tariffs due to their larger winning coalitions, this dissertation presents a caveat. In particular, it demonstrates that protectionism can be exercised via tariff complexity rather than tariff level under single-party dictatorships. This finding complements to the research agenda on politicians' choices of trade and non-trade barriers under different constraints of political institutions (Grossman and Helpman 2005; Kono 2006; Rickard 2012).

In addition, the finding that single-party dictatorships have more complicated tariff schedules contributes to studies investigating the longevity of single-party dictatorships. While scholars argue that political elites under single-party dictatorships are more willing to compromise with each other when facing political and economic crises (Geddes 1999b),

this dissertation points out an economic foundation for them to make compromises. Put differently, a complicated tariff schedule can be regarded as a result of compromise among political elites under dictatorships when they have to liberalize trade regimes, because special interests groups can lobby different political elites of different factions in the parties for tariffs that are more favorable to their industries.

To sum up, this dissertation contributes to the ongoing research agenda on the authoritarian resilience of dictatorships in the age of economic globalization. It clarifies the impacts of globalization on democratization by demonstrating that trade policies, including trade liberalization and protectionism, can be included in dictators' toolbox to secure their incumbency. Therefore, economic globalization will inhibit democratic transitions under dictatorships.

CHAPTER 2
INEQUALITY AND TRADE OPENNESS IN AUTHORITARIAN COUNTRIES

Economists and political scientists have developed numerous theories to analyze trade politics within democracies. Yet, only a few pay careful attention to trade politics within autocracies. This inadequacy is understandable for two reasons. First, autocracies are generally more isolated from the world economy than democracies, so it is straightforward to investigate why democracies trade more than autocracies instead of only focusing on trade politics under dictatorships (e.g., Aidt and Gassebner 2010; Mansfield, Milner, and Rosendorff 2002; Milner and Kubota 2005). Second, policy-making in autocracies is usually exclusive for political elites, so it is difficult to empirically test theories aiming to explain trade politics under dictatorships. However, as Figure 2.1 illustrates, many autocracies are not only participating in the world economy in the age of globalization, but also have higher levels of trade openness than many democracies.[4] Even though recent studies have concluded that democracies, on average, engage in more international trade than autocracies (Aidt and Gassebner 2010; Milner and Kubota 2005), we still need to explain why some authoritarian countries have higher trade openness than other democracies and autocracies.

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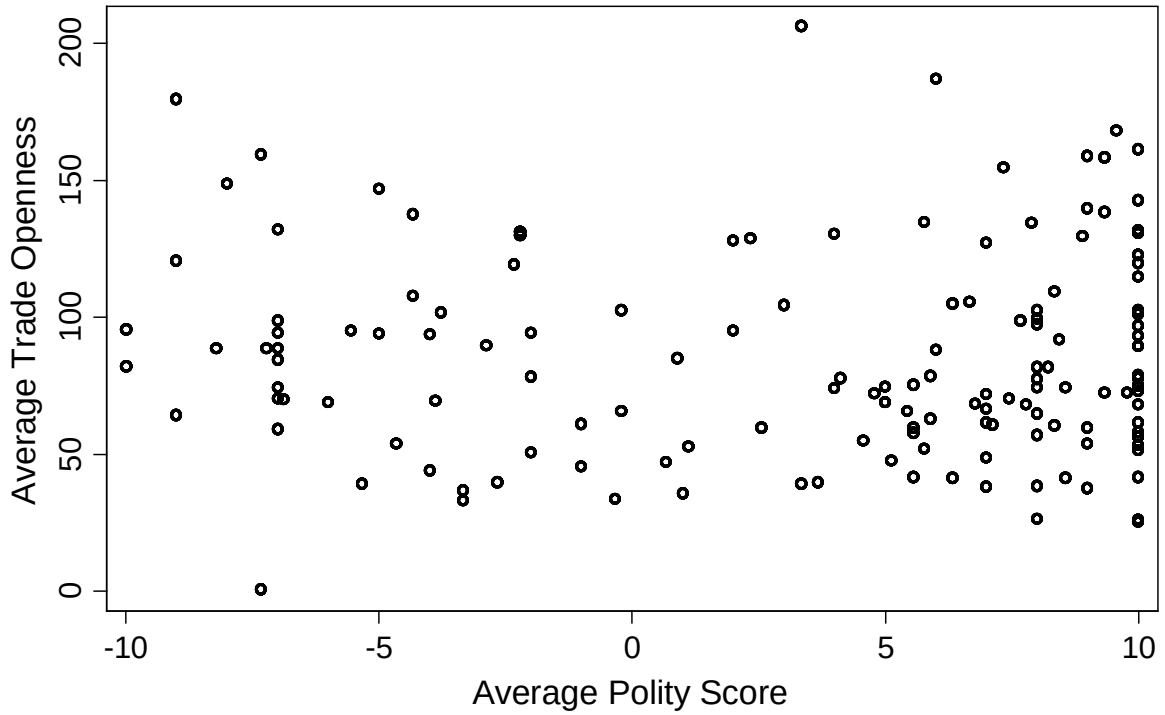
[4] The most striking example is China. In 2009 China became the largest exporter of merchandise in the world, and in 2010 it accounted for 10% and 9% of world merchandise exports and imports, respectively.



Note: Trade openness is measured by trade volume as a percentage of GDP. Singapore is not shown in the figure (Trade openness: 417; Polity score: -2.

Figure 2.1 Trade Openness among Democracies and Autocracies, 2000–2008

This is paper proposes a theory to analyze how rising economic inequality affects the degree of trade openness in authoritarian countries. I argue that rising inequality causes dictators in labor-abundant countries to increase the level of trade openness as a way to pacify popular demand for redistribution. In other words, authoritarian leaders facing rising inequality, which is associated with threats of losing incumbency, will open their trade regime as redistribution to enrich the poor without taxing the rich. This argument is supported by the data of 80 odd authoritarian regimes from 1963 to 2003 and different model specifications.

The argument of this chapter is based on two lines of existing research. One includes

theories of democratic transitions developed by Boix (2003) and Acemoglu and Robinson (2001, 2005). The other derives from the Heckscher-Ohlin model of international trade (Heckscher and Ohlin 1991). Recent scholarship has noticed about the effect of inequality on democratization. Extending the redistributive model developed by Meltzer and Richard (1981), Boix (2003) conceptualizes democratization as a game of redistribution in which non-rich citizens attempt to impose higher tax rates on their rich counterparts. Nevertheless, as the poor's demand for redistribution increases with the level of inequality, the rich are simultaneously more resistant to redistribution in that they do not want to pay more taxes. Thus, when a society is more equal, rich citizens are more willing to accept democratization. Otherwise, they will favor oppression on democratization forces. Accordingly, Boix (2003) claims that democratic transition is more likely to occur when inequality is lower.

However, Acemoglu and Robinson (2005) disagree with Boix's conclusion. On the one hand, Acemoglu and Robinson concur with Boix that rich citizens have a strong incentive to oppress poor citizens' revolutionary threats when inequality is high. On the other hand, however, they claim that poor citizens do not have enough incentives to initiate democratization when inequality is low. As a result, democratic transition is most likely to occur when inequality is in the middle range. Although there is a disagreement on the consequence of low inequality, both studies agree that higher inequality poses greater pressures of redistribution and democratization on elites. To secure their authoritarian rule, dictators need to either meet or suppress the popular demand for redistribution.[5]

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[5] The Boix-Acemoglu-Robinson mechanism of democratic transitions is challenged by

The Heckscher-Ohlin model of international trade gives the other theoretical foundation to my theory that trade openness can neutralize democratization threats. This model predicts that countries will export goods that intensively use their abundant production factor, and import products using production factors scarce to them (Heckscher and Ohlin 1991). One important implication of this model is that owners of the abundant factor will benefit while those of the scarce factor will suffer from international trade (Stolper and Samuelson 1941).[6] Given that engaging in international trade creates wage differentials among owners of different production factors, Rogowski (1989) argues that different political coalitions will emerge along with the cleavage of production factors to support or resist protectionism. In particular, owners of abundant production factors support free trade while owners of scarce factors oppose it. Based on these insights, in this chapter I expect that labor-abundant dictatorships would be more likely to participate in the world economy when their political leaders face more threats of democratization implied by rising inequality.

The argument of this chapter is close to Ahlquist and Wibbels' recent study on the relationship among trade, inequality, and democratization. Also based on the Boix-Acemoglu-Robinson mechanism of democratic transition, Ahlquist and Wibbels (2012) argue that countries with similar labor endowment face similar pressures of regime breakdown when an exogenous shock hits the international economy, because political

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other studies (e.g., Ahlquist and Wibbels 2012; Houle 2009). I will discuss them in the next section.

[6] For example, China is abundant with labor but scarce with capital, so it will export labor-intensive textiles to and import capital-intensive airplanes from capital-abundant countries, such the United States. Thus, the wages of laborers in China and the returns to capital owners in the United States both increase after they trade with each other.

leaders of those countries would bear a similar burden of redistribution imposed by the common shock. Thus, more involvement in international trade facilitates democratization in labor-abundant dictatorships but not in labor-scarce ones. However, Ahlquist and Wibbels (2012) do not find empirical support for this argument, casting a serious challenge to distributive models of democratic transitions.

Nevertheless, the finding presented by Ahlquist and Wibbels (2012) is compatible with the argument of this chapter. Specifically, Ahlquist and Wibbels (2012) provide a "bottom-up" perspective to analyze how laborers' demand for redistribution facilitates democratization via trade, whereas this chapter takes a "top-down" perspective by focusing on political leaders' incentive to take advantage of international trade conditional on the labor endowment of their countries. When facing more demand for redistribution, dictators may be tempted to attract more external resources to ease their budget constraints instead of relying on taxation. Thus, it is reasonable to observe that more engagement in international trade does not facilitate democratic transitions in labor-abundant dictatorships. Instead, we should expect that dictators facing rising inequality will use trade openness in response to the poor's demand for redistribution.

This chapter contributes to the literature in two ways. First, it advances the understanding of trade politics under dictatorships. Although there are numerous studies investigating the political economy of trade policies, most of them either focus on democracies (Goldberg and Maggi 1999; Grossman and Helpman 1994; Park and Jensen 2007; Verdier 1994), or compare trade policies between democracies and autocracies (Aidt and Gassebner 2010; Mansfield, Milner, and Rosendorff 2000; Milner and Kubota 2005). In brief, they analyze how the existence of electoral competition and special interests

determine the pattern of trade policies across different political regimes. However, by definition authoritarian politics is mainly determined by non-democratic factors, such as the preferences of top leaders and their inner circles, so the explanatory power of previous studies is inadequate to account for the variation of trade openness among dictatorships.[7] This chapter offers a novel perspective by examining how the logic of political survival of authoritarian leaders affects their decisions to participate in international trade.

Second, this chapter sheds new light on debates over the effects of trade openness on democratization. Based on the modernization theory articulated by Lipset (1959), scholars contend that trade openness, or economic globalization in a broader sense, facilitates democratization after it induces economic growth (Eichengreen and Leblang 2008; Epstein et al. 2006; López-Córdova and Meissner 2008). However, other scholars argue that globalization may strengthen authoritarianism under dictatorships, because the state apparatus becomes financed by external resources and more able to continue its authoritarian control (O'Donnell 1988). This dissenting view is also supported by empirical evidence indicating that trade openness does not facilitate democratic transitions (Li and Reuveny 2003; Teorell 2010). Thus, this chapter adds a new perspective to this view by demonstrating that trade openness is a strategic response of dictators to ease inequality and to neutralize democratization threats.

The remainder of this chapter is organized as follows. In the next section, I elaborate on how inequality affects dictators' decisions to expand trade. Section 2.3 proposes a

[7] One of a few exceptions is Hankla and Kuthy (2012). They argue that dictatorships with longer regime time horizons are more likely to implement trade liberalization. This chapter complements to their finding by showing that trade openness may further prolongs authoritarian survival.

research design to test the hypothesis of this chapter. In Section 2.4, I present the empirical results estimated with different modeling techniques and measurements of inequality, dictatorship, and trade openness. I also deal with the issue of endogeneity between inequality and trade openness in this section. The empirical evidence in Section 2.4 supports the theory of this chapter. The final section discusses implications of this research with concluding remarks.

2.1 Inequality, Trade Openness, and Authoritarian Survival

In this chapter, I argue that increasing the level of trade openness is a feasible policy tool for dictators in labor-abundant countries to meet the demand for redistribution and to sustain their incumbency. I develop my argument on the basis of two existing theories. The first includes the Meltzer-Richard model of redistribution and its extensions to models of democratic transitions (Acemoglu and Robinson 2001, 2005; Boix 2003); the second includes the Heckscher-Ohlin Model of international trade and its implication to distributive politics. I will briefly discuss those theories in turn.

The existing theoretical models focus on the role of the median voter in the relationship between inequality and democratization, arguing that democratization is triggered by the median voter's demand for redistribution. As it is intuitive to expect that the demand for redistribution increases with the level of inequality, Meltzer and Richard (1981) demonstrate that the median voter's preference determines the level of redistribution. The summary of their model is that when the wage of the mean income earner is higher than that of the median income earner, the latter would like to support more taxes on those who are richer and redistribute those taxed money to themselves and

other poorer people. By contrast, if the median income earner's wage is higher than the mean income earner's wage, the median income earner would oppose any redistribution that reduces their welfare.

Based on the Metzler-Richard model, scholars conceptualize democratization as a process of redistribution. They argue that economic inequality is one of the driving forces of democratization that introduces a more comprehensive scheme of redistribution among the populace (Acemoglu and Robinson 2001, 2005; Boix 2003). Although poor citizens always prefer higher levels of redistribution in the form of higher taxes on the rich, democratic transitions cannot occur without the support of the middle class. Since higher economic inequality implies that the median voter (the median income earner in the Metzler-Richard model) would benefit from redistribution, it imposes more pressure of redistribution on the rich and political elites. If the elites fail to respond to the median voter's demand for redistribution, then democratization will be triggered by revolution and result in redistribution.[8]

The rich citizens, however, have an incentive to resist redistribution and then to favor suppression against the poor. With this reasoning, Boix (2003) posits a negative linear relationship between inequality and prospects of democratization. He further points out that democratization becomes more likely in two scenarios. First, when a society is more equal, the rich are more willing to accept democratization, because their wealth loss would be small after redistribution. Second, when the rich can move their assets (e.g., capital)

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[8] In other words, democracy is an institution in which the poor can ensure that the rich can fulfill their promise of redistribution in exchange for the poor's self-restraint from initiating revolution.

abroad to avoid taxation, they will be less likely to refuse redistribution implied by democratization. Freeman and Quinn (2012) extend this thesis further. They find that as an autocracy is more financially integrated into the world economy, the rich elites can diversify their asset portfolios in the international market to leverage the risk of being taxed and thus become less resistant to democratization.

Acemoglu and Robinson (2001) take a different perspective to analyze the relationship between inequality and democratization. They propose an inverted U-shaped relationship between two variables. On the one hand, rich citizens have strong incentives to resist redistribution when inequality is high, so they are more willing to bear costs of repression rather than accept redistribution. On the other hand, however, poor citizens have little incentive to initiate revolution when inequality is low, because they will not benefit much from post-revolution redistribution. Thus, democratization is most likely to occur when inequality is in the middle level. This conclusion implies that increases in inequality may facilitate democratization, unless dictators are either confident in their coercive capacity to repress the demand for redistribution or willing to implement redistributive policies via taxation.

However, the models of democratic transitions discussed above are challenged from both theoretical and empirical perspectives. Theoretically, these models overemphasize the role of the median voter in authoritarian regimes where elections are unfair, or even absent (Schedler 2006). In addition, those models either ignore the problem of collective action among the poor to initiate revolution (Houle 2009), or assume that the rich class is so unified that there is no conflict of economic interests among them (Ansell and Samuels 2010). Empirically, their conclusions are drawn from either data with poor quality or case

studies, so the external validity of their arguments is subject to further debate (Alemán and Yang 2011). Nevertheless, economic inequality is still a significant issue under dictatorships in that high inequality implies "enough of a redistributive reward to make revolutionary activity extremely profitable" (Schofield and Levinson 2008). Two recent studies also demonstrate that countries with high inequality are more likely to incur organized conflicts and killings, because the poor expects to benefit significantly from expropriating the rich via violence (Boix 2008; Nepal, Bohara, and Gawande 2011). Accordingly, to prevent inequality from fostering anti-regime momentum, authoritarian leaders use either "carrots" to pacify or "sticks" to suppress the poor people (Gallagher and Hanson 2009), trade openness being a key aspect of the former category in that it can enrich the poor and alleviate inequality.

The second cornerstone of my argument is the Heckscher-Ohlin Model of international trade. This model predicts that countries benefit from exporting goods produced with their domestically abundant factors (Heckscher and Ohlin 1991). Stolper and Samuelson (1941) make an important extension of this model by demonstrating that the return to the owner of abundant factors will increase after trade expansion. The logic here is intuitive: If a production factor is abundant, it makes production costs cheaper than scarce factors. Thus, countries should utilize their abundant factors to produce goods, and export those products to countries for whom those factors are scarce. Rogowski (1989) extends this argument by demonstrating that political coalitions will emerge along with the cleavage of production factors and take different positions on protectionism. That is, owners of abundant factors favor free trade whereas owners of scarce factors embrace protectionism. The implication of Rogowski's argument is critical: International trade has

redistributive effects that tend to cause political conflicts among different groups.

In addition to the formation of political coalitions, the Heckscher-Ohlin model implies that abundant laborers in developing countries can benefit from trading with capital-abundant developed countries (Baccini 2012; Mayer 1984). Since most dictatorships happen to be developing or less developed countries, their abundant poor laborers can earn higher income after trading with developed countries. With trade expansion, dictators do not need to worry about either pressures of redistribution from the poor or backlashes against redistribution from the rich. In other words, trade openness can be regarded as a distributive effort without taxing the rich under labor-abundant dictatorships, making it a better policy choice for dictators facing rising inequality.

Based on the implications of the Heckscher-Ohlin model, I extend the theoretical focus in models of democratic transitions developed by Boix (2003) and Acemoglu and Robinson (2001, 2005) from taxation to trade openness. Since trade expansion enriches laborers in labor-abundant dictatorships and meets the popular demand for redistribution, dictators will be tempted to expand trade when inequality is increasing.

It should be emphasized that the focus of this chapter is the increase in inequality rather than the level of inequality. Previous studies mainly investigate the political and economic consequences of inequality levels, but they ignore the impact of changes in inequality. Rising inequality, however, is more salient than high inequality for authoritarian politics. Dictators may be well-equipped to use force against opposition when inequality is high, but as inequality is getting higher, they have to either strengthen their control to prevent potential uprisings or share power to quell unrest. Put differently, increases in inequality change the equilibrium conditions of the status quo and enforce dictators to

update their policy tools to maintain authoritarian control. Thus, we should consider changes in inequality in addition to the level of inequality when analyzing how inequality affects authoritarian politics.

The causal mechanism of this article emphasizes the interactive effects between trade openness and inequality on democratic transition. It is similar to the argument elaborated by Wibbels and Ahlquist (2012). To disentangle the issue of endogeneity between trade openness and democratization, Wibbels and Ahlquist use the expansion of world trade as an exogenous variable to test whether or not engaging in more trade facilitates democratization in authoritarian regimes. They argue that if economic growth induced by trade fosters democratization, more exposure to world trade would increase the probability of democratic transitions in labor-abundant dictatorships. Also, it should be expected that countries with similar factor endowments face similar pressures of democratization when there is an exogenous shock to world trade. However, Wibbels and Ahlquist (2012) find no evidence suggesting a positive effect of labor abundance or international trade on democratization once the regional forces of democratization are controlled in their empirical models.

At first glance, the finding of Wibbels and Ahlquist (2012) seems to reject the argument of this chapter, since it implies that neither trade nor inequality has impacts on democratization. However, their finding is theoretically compatible with the causal mechanism proposed here. When dictators face rising inequality, their incentive to maintain incumbency plays a crucial role. It is possible that trade openness is a strategic response of dictators to ease their budget constraint of redistribution as inequality rises. Thus, it is reasonable to observe no positive relationship between trade openness and

democratization after strategic reactions. Meanwhile, it can be expected that changes in trade openness respond to changes in inequality under dictatorships.

One immediate objection to the central thesis of this article is that inequality is a consequence, not a cause of trade openness. Numerous studies show that trade openness contributes to increases in inequality (Goldberg and Pavcnik 2007). However, this claim is far from complete, because other studies find that the impact of trade openness on inequality is weak or even absent (Anderson 2005; Babones and Vonada 2009). Some scholars offer an eclectic perspective on this debate, arguing that trade increases inequality in developed countries but reduces it in developing countries (International Monetary Fund 2008). I adopt this eclectic view in this chapter. Furthermore, I employ both system generalized methods of moments (GMM) and instrumental-variable regression models to deal with this issue of endogeneity in the empirical section of this chapter. The estimation results demonstrate that rising inequality causes further trade openness under dictatorships.[9]

Another objection to the argument of this chapter is that dictators may rely on other policy tools, such as military oppression and fiscal redistribution, to mitigate the pressure the inequality. After all, authoritarian leaders by definition have more discretion to govern their countries than their democratic counterparts for the lack of constraints on their power (North and Weingast 1989). However, as forcefully pointed out by Boix (2003) and Acemoglu and Robinson (2005), the rich class will not support political leaders' decision to implement fiscal distribution by imposing higher taxes rates, so inequality may still

[9] Following Higgins and Williamson (1999) and You and Khagram (2005), I use the ratio between two age groups as an instrument of inequality in the empirical section.

prevails. On the other hand, it is costly for dictators to maintain a strong military to oppress the poor's demand for redistribution. Furthermore, the existence of a strong military, as argued by Acemoglu et al. (2010), creates a moral hazard problem in which political leaders may not be able to control the military officers who can initiate military coup. We should also keep in mind that a strong military itself does not eliminate inequality but suppresses the demand for redistribution. Therefore, trade policy becomes a more desirable policy choice than others for dictators to deal with rising inequality, especially in labor-abundant autocracies.

Based on those discussions, in next sections I empirically test the following hypothesis:

- **Hypothesis 2.1:** *As income inequality increases, trade openness also increases under labor-abundant dictatorships*

2.2 Empirical Analysis

To test the hypothesis that increases in inequality facilitate more trade openness in labor-abundant authoritarian regimes, I compile a dataset covering 80 odd authoritarian regimes between 1963 and 2003.[10] The unit of analysis is country-year. The list of authoritarian regimes covered by this chapter is reported in Appendix A.1.

The Dependent Variable. The dependent variable of this chapter is trade openness of an authoritarian regime in a given year. I operationalize trade openness as one country's yearly trade volume divided by its GDP (constant price). I multiply the fractional numbers

[10] I use the data of authoritarian regimes constructed by Geddes, Wright, and Frantz (2012). The dataset is available at http://dictators.la.psu.edu. (Accessed on May 31, 2012)

by 100 to rescale this variable into a percentage form. A higher value of this variable implies that a country's economy has more exposure to the world market. The data of this variable is taken from the Penn World Table (version 6.3) constructed by Heston et al. (2009). Although this measurement of trade openness is the most commonly used in literature, it is subject to critique (e.g., Ahlquist and Wibbels 2012; Pritchett 1996). For example, this variable may just measure the "size" rather than the "openness" of one country's trade regime. Thus, I also use other measurements of trade openness as robustness checks.[11]

Explanatory Variables. The first explanatory variable of this chapter is income inequality (*Inequality*). I use the inequality measure of industrial payment constructed by James Galbraith and his colleagues (Galbraith and Kum 2003; Galbraith 2012). While there are other alternative measures of inequality, such as the one developed by Deininger and Squire (1996), the quality of those Gini-based measurements is usually coarse and problematic. For example, the widely-used Deininger-Squire Gini index and its extensions are constructed on the basis of surveys, so the issue of missing data is usually serious, especially in developing countries. To address the problem of missing values in the Deininger and Squire's dataset, scholars take the average of inequality data over a certain time period (Boix 2003; You and Khagram 2005) or impute the missing data (Solt 2009). However, Galbraith (2012) points out that those methods "involves heroic guesswork," because sometimes the imputation is made on the basis of one observation on a country

[11] I use the binary variable of trade openness constructed by Sachs and Warner (1995) and updated by Wacziarg and Welch (2003). I also adopt the KOF index of economic globalization developed by Dreher (2006). I will discuss the operationalization of those alternative measurements in the next section.

over the whole period under study. Therefore, other scholars try to employ other measures of inequality (e.g., Galbraith and Kum 2003; Houle 2009).

Using statistics of industrial wages surveyed by the United Nations Industrial Development Organization (UN-IDO), the indicator of industrial pay inequality developed by Galbraith and colleagues includes the industrial payment data in 156 countries from 1963 to 2003 (N = 3554, including autocracies and democracies). The inequality dataset derived from the UN-IDO statistics provides a more complete time-series-cross-sectional data structure than does the Gini index calculated by Deininger and Squire (1996), so we do not need to impute the missing data of inequality as other studies do. More importantly, from the theoretical perspective of this chapter, the industrial pay-inequality measure is more preferable than the Gini index, because the expansion of trade have more direct impacts to wages than household income measured by the Gini index.

The Heckscher-Ohlin model implies that wages in labor-abundant countries will increase after trade expansion, so the second key explanatory variable of this chapter is *Labor Endowment*. I use the variable of relative labor endowment calculated by Ahlquist and Wibbels (2012, 455). This variable measures a country *i*'s labor endowment with the following formula: $(Population_i / World\ Population) / (GDP_i / World\ GDP)$. A larger value of this variable indicates a higher level of labor abundance, because it means that country *i* uses more laborers to create the same output as other countries. Following Ahlquist and Wibbels (2012), I take the logarithm of this variable to address skewness.

I include a set of control variables in my empirical models. First, I use GDP per capita (*GDPpc*, in hundreds of US dollars) to account for the effect of economic development on trade openness. The data of GDP per capita are taken from the Penn World Table (version

6.3). Second, I include two variables measuring a country's endowment of natural resources, metals and oil in particular. The variables *Metal* and *Oil* measure one country's total production of industrial and precious metals and oil divided by its population size, respectively. Although it can be expected that countries with abundant natural resources are more likely to export them to the world market, it can also be argued that those resources-abundant countries are relatively closed to the world market due to the underdevelopment of other industries. Thus, I am theoretical agnostic to the signs of both variables in my empirical estimation. The data on natural resources are taken from Haber and Menaldo (2011).

Third, I include the membership of *GATT/WTO* to control for the impact of international trade agreements on trade openness. While some scholars argue that a country's participation in the *GATT/WTO* boosts its trade volume (Goldstein, Rivers, and Tomz 2007; M. H. Kim 2011), others disagree (Rose 2004). In line with the argument of this chapter, I expect that the impact of joining *GATT/WTO* on trade openness is positive among authoritarian regimes. The data on the *GATT/WTO* membership is taken from Ulfelder (2011).

Fourth, I re-investigate how political institutions affect the level of trade openness under dictatorships. Previous studies argue that single-party dictatorships, due to their larger winning coalition sizes, have higher trade openness than other types of dictatorships, including military, monarchy, and personalistic dictatorships (Hankla and Kuthy 2012; Milner and Kubota 2005). Thus, I expect that single-party dictatorships are associated with higher trade openness. The data on the typology of authoritarian regimes are taken from Geddes (1999a).

Last, I control for the impacts of authoritarianism on trade openness. Existing studies find that trade openness is positively correlated with the level of democracy (Aidt and Gassebner 2010; Milner and Kubota 2005; Milner and Mukherjee 2009). Yet, the argument of this chapter implies that dictators use trade policies to sustain their authoritarian rule. Thus, I expect that more authoritarianism will be associated with more trade openness.[12] I take the variable *Autoc* from the Policy IV project to measure authoritarianism (Marshall and Jaggers 2002).[13]

Appendix A.2 reports the descriptive statistics of variables used in this chapter.

Model Specification. Since the main interest of this research is how changes in inequality conditional on labor endowment affect changes in trade openness under dictatorships, I use error correction models (ECMs) to conduct empirical analysis. The main advantage of this modeling strategy is to estimate how long it takes for the deviation from the equilibrium, caused by changes of explanatory variables, to return to the equilibrium path. In other words, ECMs are used to estimate both short-run and long-run impacts of independent variables on the dependent variable (Boef and Keele 2008). From the theoretical perspective of this chapter, it is appropriate to employ error correction models, because my focus is how changes of inequality affect changes, rather than levels, of

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[12] This argument is related to the study of Hankla and Kuthy (2012). While they find that dictatorships with longer regime time horizons are more likely to implement liberal trade policies, this chapter argues that trade openness is a strategy to prolong authoritarian time horizon.

[13] The variable *Autoc* in the Polity IV project measures competition for the executive recruitment, constraints on the executive power, and political participation. Thus, a higher value of *Autoc* indicates a higher level of authoritarianism. Alternatively, since *Autoc* measures how tightly political leaders maintain their authoritarian incumbency, it can be a proxy of political time horizon of dictatorships.

trade openness under dictatorships.

Methodologically, ECMs take the first difference of the dependent variable and regress it on the lagged dependent variable, lagged independent variables, and the first differences of independent variables. In the general form of ECMs, the lagged variables represent the long-run impacts and the first-differenced explanatory variables capture the short-run impacts on the dependent variable. Formally, in this chapter I establish the following error correction model to estimate the impact of inequality on trade openness in authoritarian countries:

$$\begin{aligned}\Delta TradeOpen = {} & a + b_0 TradeOpen_{i,t\text{-}1} + b_1 Inequality_{i,t} + b_2 \Delta Inequality_{i,t} + \\ & b_3 LaborEndowment_{i,t\text{-}1} + b_4 \Delta LaborEndowment_{i,t} + \\ & b_5 (Inequality_{i,t\text{-}1} \times LaborEndowment_{i,t\text{-}1}) + \\ & b_6 \Delta (Inequality_{i,t} \times LaborEndowment_{i,t}) + \\ & b_7 GDPpc_{i,t\text{-}1} + \Delta b_8 GDPpc_{i,t} + \\ & b_9 Oil_{i,t\text{-}1} + b_{10} \Delta Oil_{i,t} + b_{11} Metal_{i,t\text{-}1} + b_{12} \Delta Metal_{i,t} + \\ & b_{13} Authoritarianism_{i,t\text{-}1} + b_{14} \Delta Authoritarianism_{i,t} + \\ & b_{15} SingleParty_{i,t\text{-}1} + b_{16} GATT/WTO_{i,t\text{-}1} + e_{i,t}\end{aligned} \quad (1)$$

In equation (1), α is the constant term, the lagged variables capture the long-term effects of explanatory variables, the first-differenced variables represent the short-term effects of changes in independent variables, and $\varepsilon_{i,t}$ is the disturbance term for country *i* in year *t*. Based on the current literature and my discussions so far, I expect that the short-term interactive effects between *Inequality* and *LaborEndowment* (i.e., β_6) to be positive. In other words, short-term increases of inequality conditional on labor

endowment are associated with more trade openness. To account for country-specific heterogeneity and potential heteroskedasticity, I estimate ECMs with fixed effects models and panel-corrected standard errors (Beck and Katz 1995). I also include five-year dummies to control for common economic shocks across authoritarian regimes.[14]

2.3 Empirical Results

The estimation results of error correction models are reported in Table 2.1. In brief, the empirical results indicate that short-term increases in the interaction between inequality and labor endowment also increase future levels of trade openness for authoritarian countries in my sample. The result is robust across most models estimated in Table 2.1, confirming the hypothesis of this chapter. I will discuss those models in detail.

First, I estimate a baseline model without considering the interaction effects. As reported in Model 1, *Inequality* has neither short-term nor long-term effects on trade openness. However, *Labor Endowment* has long-term negative effects, implying that countries with larger population are less involved in international trade (Katzenstein 1985). Model 2 includes two interaction terms between *Inequality* and *Labor Endowment*. The sign of $\Delta(Inequality \times LaborEndowment)$ is positive and statistically significant at 0.1 level. This result supports the hypothesis of this chapter. Since *GDPpc* is highly correlated

[14] A preferred method is using year dummies in the estimation. However, including year dummies will make the variance-covariance matrix highly singular and the panel-corrected standard errors unavailable in Stata 11. Nevertheless, the main estimation results remain the same if I use decade dummies or year dummies in fixed effect models with clustered standard errors.

with *Labor Endowment* and insignificant in Model 1 and Model 2,[15] I follow the practice of Ahlquist and Wibbels (2012) to drop *GDPpc* from estimation and report the results in Model 3. The coefficient of the interaction term becomes slightly larger and significant at 0.05 level.

To check whether the results of Model 3 are sensitive to the choice of dataset on dictatorships, I use another dataset on regime types constructed by Przeworski et al. (2000) and updated by Cheibub, Gandhi, and Vreeland (2009). Similar to Geddes' dataset, Cheibub et al. (2009) use a binary variable to code whether a country is autocratic or democratic. Although their dataset covers fewer dictatorships, the statistical significance of the interaction term $\Delta(Inequality \times LaborEndowment)$ still holds in Model 4.

Some readers may wonder whether my argument about the effects of inequality on trade openness can also be applied to democracies. As I mentioned in the previous section, trade policymaking is subject to different causal mechanisms in democracies and autocracies. Based on Model 4, I investigate cases of democracies in Model 5, in which the sign of the interaction term becomes negative and statistically significant. This contrasting result suggests that trade openness may not be a strategy in response to rising inequality in democracies as it may be in autocracies.

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[15] The correlation between *GDPpc* and *Labor Endowment* is -0.73.

Table 2.1 Determinants of Trade Openness under Dictatorships

	Model 1	Model 2	Model 3	Model 4
Trade Openness$_{t-1}$	-0.281***	-0.281***	-0.280***	-0.278***
	[0.082]	[0.082]	[0.082]	[0.085]
Inequality$_{t-1}$	0.073	0.033	-0.022	-0.136
	[0.156]	[0.202]	[0.187]	[0.220]
ΔInequality	0.082	-0.422	-0.531	-0.501
	[0.138]	[0.317]	[0.292]	[0.385]
Labor Endowment $_{t-1}$	-13.993***	-13.515**	-11.642***	-12.111***
	[5.421]	[5.443]	[4.391]	[4.670]
Δ*Labor Endowment*	11.238	8.052	8.873	8.254
	[9.698]	[9.912]	[9.873]	[10.182]
(*Inequality* ×		-0.061	-0.004	0.032
Labor Endowment) $_{t-1}$		[0.128]	[0.119]	[0.129]
Δ(*Inequality* ×		0.403*	0.483**	0.483*
Labor Endowment)		[0.242]	[0.221]	[0.254]
GDP pc $_{t-1}$	-0.024	-0.021		
	[0.018]	[0.019]		
Δ*GDPpc*	-0.005	-0.011		
	[0.044]	[0.044]		
Oil $_{t-1}$	-0.017	-0.027	-0.039*	-0.044*
	[0.023]	[0.028]	[0.023]	[0.024]
Δ*Oil*	-0.023	-0.032	-0.044*	-0.044*
	[0.025]	[0.027]	[0.026]	[0.026]
Metal $_{t-1}$	0.569	0.603	0.773	0.728
	[0.610]	[0.603]	[0.616]	[0.559]
Δ*Metal* $_{t-1}$	2.888***	2.899***	3.007***	2.918***
	[0.879]	[0.874]	[0.869]	[0.860]
Authoritarianism $_{t-1}$	0.695*	0.699*	0.741*	0.670**
	[0.417]	[0.418]	[0.412]	[0.306]
Δ*Authoritarianism*	0.733*	0.733*	0.776**	0.737**
	[0.375]	[0.376]	[0.369]	[0.305]

Table 2.1 (cont'd)

	Model 1	Model 2	Model 3	Model 4
Single Party $_{t-1}$	-1.843	-2.026	-1.761	-2.679
	[4.737]	[4.734]	[4.790]	[4.668]
GAT T /W T O $_{t-1}$	3.458**	3.496*	3.666**	3.040*
	[1.762]	[1.807]	[1.749]	[1.822]
Constant	16.972*	17.067*	13.001	15.370*
	[9.709]	[9.704]	[8.838]	[8.356]
N	1173	1173	1173	1135
No. of Countries	81	81	81	78
R^2	0.195	0.196	0.196	0.19

Note: All models include country fixed effects and five-year dummies (not shown). Panel-corrected standard errors are included in brackets. The dependent variable in Model 1 to Model 4 is Δ*Trade Openness*. Model 4 analyzes the cases of dictatorships covered by Cheibub et al (2009).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Another reasonable doubt may be associated with the effects of Gini-based measure of inequality on trade openness. Although I have explained why it is inappropriate to use household income to measure inequality in this chapter, in Model 6 I use the Gini-based measure of household income inequality constructed by Solt (2009). The result indicates that household income inequality has no significant short-term effects on trade openness, but it can further inhibit trade openness in the long run. Nevertheless, the interaction term $Inequality \times LaborEndowment$ is positive and statistically significant, implying that income inequality between households may facilitate trade openness in labor-abundant countries in the long run.

The results of control variables are worth discussion, too. First, the role of natural resources on trade openness is ambiguous. The estimation suggests that oil production has negative impacts on trade openness while metal production has positive impacts. The

reason for this contrasting result is beyond the scope of this chapter, but it is consistent with a recent study arguing that trade regime is more protected in oil-rich Middle East countries where private sectors are less developed (Malik and Awadallah 2011). Second, the membership of *GATT/WTO*, as argued by Goldstein, Rivers and Tomz (2007) and expected by this chapter, facilitates more trade openness. However, unlike what scholars have found (Hankla and Kuthy 2012; Milner and Kubota 2005), single-party dictatorships do not have higher trade openness than their counterparts, while higher levels of authoritarianism are associated with more trade openness.

One may argue that the dependent variable measuring the ratio between trade volume and GDP is not a choice variable but an outcome variable to measure trade policies, so it is inappropriate to use it as a measure of trade openness. Although it is common in literature to use the trade-GDP ratio as an indicator of trade openness (e.g., Ghosh 2002; Milner and Mukherjee 2009), I adopt two alternatives of trade openness. First, I use the KOF index of economic globalization constructed by Dreher (2006). In addition to actual trade flows, this variable also measures countries' restrictions on trade, such as mean tariff rates and hidden import barriers. As a country with a huger value of this variable has a higher level of trade openness, the results of Model 7 confirm that increases in inequality conditional on labor endowment further facilitate trade expansion.

Table 2.2 Determinants of Trade Openness under Dictatorships

	Mode 5	Model 6	Model 7
Trade Openness$_{t-1}$	-0.145***	-0.105	
	[0.038]	[0.074]	
Econ. Globalization$_{t-1}$			-0.097***
			[0.030]
Inequality$_{t-1}$	0.191*	-0.424**	0
	[0.111]	[0.172]	[0.039]
∆Inequality	0.248	0.022	-0.031
	[0.192]	[0.360]	[0.054]
Labor Endowment $_{t-1}$	-2.973	-17.603***	-0.554
	[1.979]	[5.032]	[0.534]
∆*Labor Endowment*	-6.503	25.863	1.767
	[5.575]	[18.204]	[1.450]
(*Inequality* ×	-0.087	0.258**	0.036
Labor Endowment) $_{t-1}$	[0.103]	[0.117]	[0.030]
∆(*Inequality* ×	-0.248*	-0.098	0.081**
Labor Endowment)	[0.131]	[0.278]	[0.034]
Oil $_{t-1}$	-0.039**	0.225	0.000
	[0.017]	[0.201]	[0.005]
∆*Oil*	0.043	0.337	-0.002
	[0.030]	[0.308]	[0.006]
Metal $_{t-1}$	-0.138	0.834**	0.141*
	[0.099]	[0.360]	[0.076]
∆*Metal* $_{t-1}$	0.462*	3.262***	0.272**
	[0.239]	[0.747]	[0.136]
Authoritarianism $_{t-1}$	-0.253	0.355	
	[0.367]	[0.297]	
∆*Authoritarianism*	-0.259	0.301	
	[0.367]	[0.300]	
GAT T /W T O $_{t-1}$	0.513	4.571***	-0.588
	[1.087]	[1.384]	[0.412]

Table 2.2 (cont'd)

	Model 5	**Model 6**	**Model 7**
Constant	2.032	26.270***	4.499***
	[3.568]	[9.316]	[1.570]
N	1134	1197	942
No. of Countries	66	79	69
R^2	0.319	0.119	0.137

Note: All models include country fixed effects and five-year dummies (not shown). Panel-corrected standard errors are included in brackets. The dependent variable in Model 5 and Model 6 is Δ*Trade Openness*. The dependent variable in Model 7 is *Econ. Globalization*. Model 5 covers cases of democracies included in Geddes (1999). The inequality variable in Model 6 is the household income inequality constructed by Solt (2009); other models use the industrial pay inequality measure constructed by Galbraith (2012).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Alternatively, I use the measure of trade openness constructed by Sachs and Warner (1995) and updated by Wacziarg and Welch (2003). This binary variable measures whether or not a country's trade regime is open on the basis of its tariffs, non-tariffs barriers, and black-market exchange rates. Since this variable is binary, I follow the suggestion of Beck, Katz and Tucker (1998) to use the binary time-series-cross-section (BTSCS) method that addresses the issue of time dependence. In particular, I include a variable that counts the duration of time from when a country's opens itself up to trade (*Closed Years*), and then create three time splines as the smooth function to deal with time dependence (*Spline1, Spline2, and Spline3*). I use clustered standard errors to address heteroskedasticity.

Table 2.3 Effects of Inequality on Trade Openness

	Model 8 (BTSCS)	**Model 9** (BTSCS)	**Model 10** (BTSCS)	**Mode 11** (Sys. GMM)	**Mode 12** (Hausman-Taylor)
Inequality	0.090**	0.145**	0.117	-1.005	-0.058
	[0.040]	[0.073]	[0.091]	[0.995]	[0.162]
Labor Endowment	1.110***	1.512***	1.099	-66.213***	-11.327***
	[0.402]	[0.569]	[0.896]	[24.202]	[1.978]
Inequality × Labor Endowment		-0.050	-0.036	2.802**	0.244**
		[0.055]	[0.077]	[1.354]	[0.116]
Trade Openness$_{t-1}$				0.061	0.788
				[0.355]	[0.033]
Trade Openness$_{t-1}$				0.157**	0.021
				[0.071]	[0.035]
GDPpc	0.049***	0.053***	0.039***		
	[0.009]	[0.009]	[0.010]		
Oil	-0.197**	-0.198***	-0.125***	-0.104	-0.029*
	[0.082]	[0.074]	[0.025]	[0.080]	[0.015]
Metal	-0.037	-0.055	0.017	1.754	1.027***
	[0.136]	[0.143]	[0.230]	[5.487]	[0.379]
Authoritarianism	-0.126*	-0.121*	-0.392***	-0.577	0.377
	[0.068]	[0.067]	[0.123]	[0.769]	[0.254]
GATT/WTO				17.718	4.421**
				[12.755]	[1.957]
Age40-59/Age15-69					-61.080***
					[21.620]
Constant	0.738	0.211	0.629	83.721***	-70.773
	[0.741]	[0.810]	[1.121]	[24.543]	[29.818]
N	1210	1210	1236	1295	1008
No. of Countries	73	73	70	85	82
χ^2	323	352	496	36	1962

Note: The dependent variable in Model 8 to Model 10 is the binary Wacziarg-Welch index of trade openness. The dependent variables in Model 11 and Model 12 are the trade-GDP ratio and the KOF index of economic globalization, respectively. Model 10 covers only cases of democracies. Robust standard errors clustered at the country-level are reported in brackets in Model 8 to Model 11. The *p*-values of Arellano-bond test for AR(1) and AR(2) in first difference are 0.383 and 0.805 in Model 11, respectively. The *p*-value of Hansen *J*-test is 0.509 in Model 11. The *p*-value of Sargan-Hansen test in Model 12 is 0.152. The following variables are not shown in the table: Count for the years since a country's open of its trade regime and three time splines (Model 8 to Model 10), and five-year dummies (Model 11 and Model 12).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Model 9 estimates the effects of *Inequality* and *Labor Endowment* without including their interaction term. The results suggest that both *Inequality* and *Labor Endowment* have positive impacts on trade openness. Yet, the interaction term between both variables is statistically insignificant in Model 10. However, since the dependent variable is bounded between 0 and 1 in logit models, the effect of one independent variable on the dependent variable are not linearly addictive but conditional on values of other covariates. Furthermore, the signs and statistical significance of interaction terms in logit models are not reliable. Accordingly, scholars recommend to graph the effects of interaction terms in nonlinear models (Berry, DeMeritt, and Esarey 2010; Brambor, Clark, and Golder 2006).

To further examine how changes in inequality conditional on labor endowment affect trade openness, I use the *Clarify* package developed by King, Tomz, and Wittenberg (2000) to simulate how the predicted probability for a dictatorship, conditional on different levels of labor endowment, to open its trade regime changes as inequality increases. As Figure 2.2 illustrates, labor-abundant dictatorships are more likely to open their trade regimes, so the effect of rising inequality is smaller in those countries than in labor-scarce dictatorships.[16] It has to be emphasized that the 90% confidence intervals are wider under labor-scarce dictatorships, and they do not overlap with those of labor-abundant dictatorships unless the inequality level is higher than the 8 (i.e., the 80th percentile).

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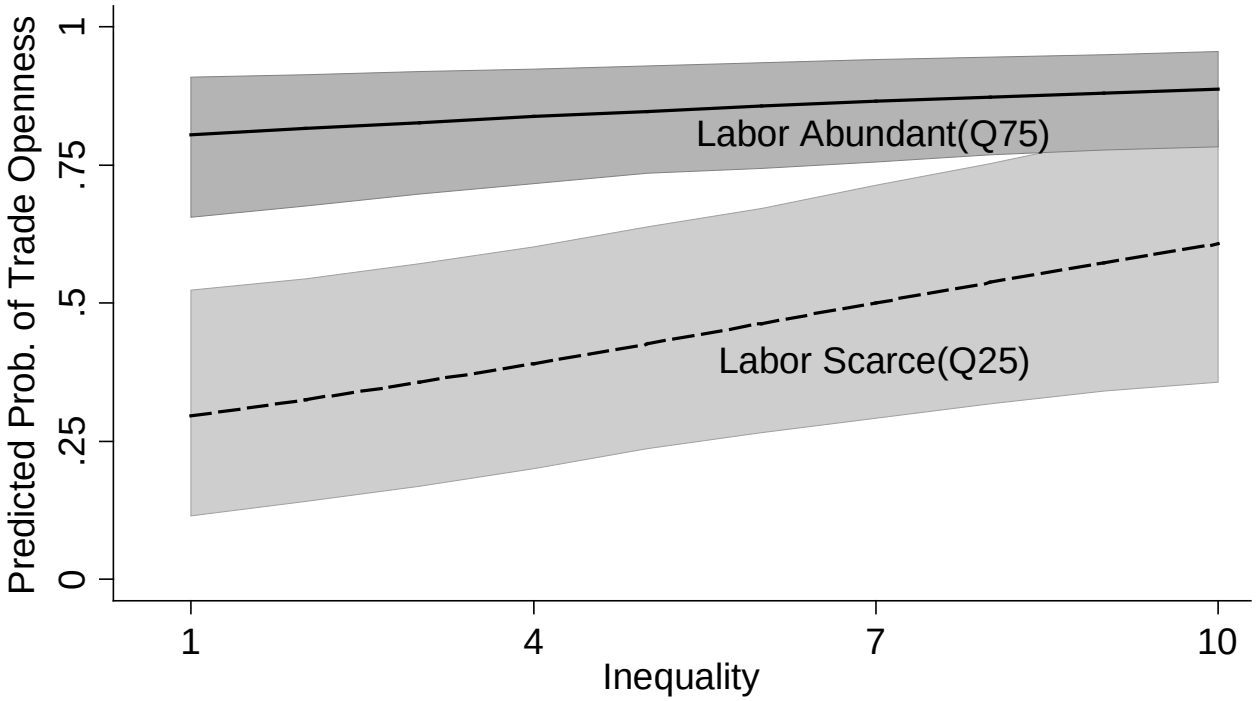
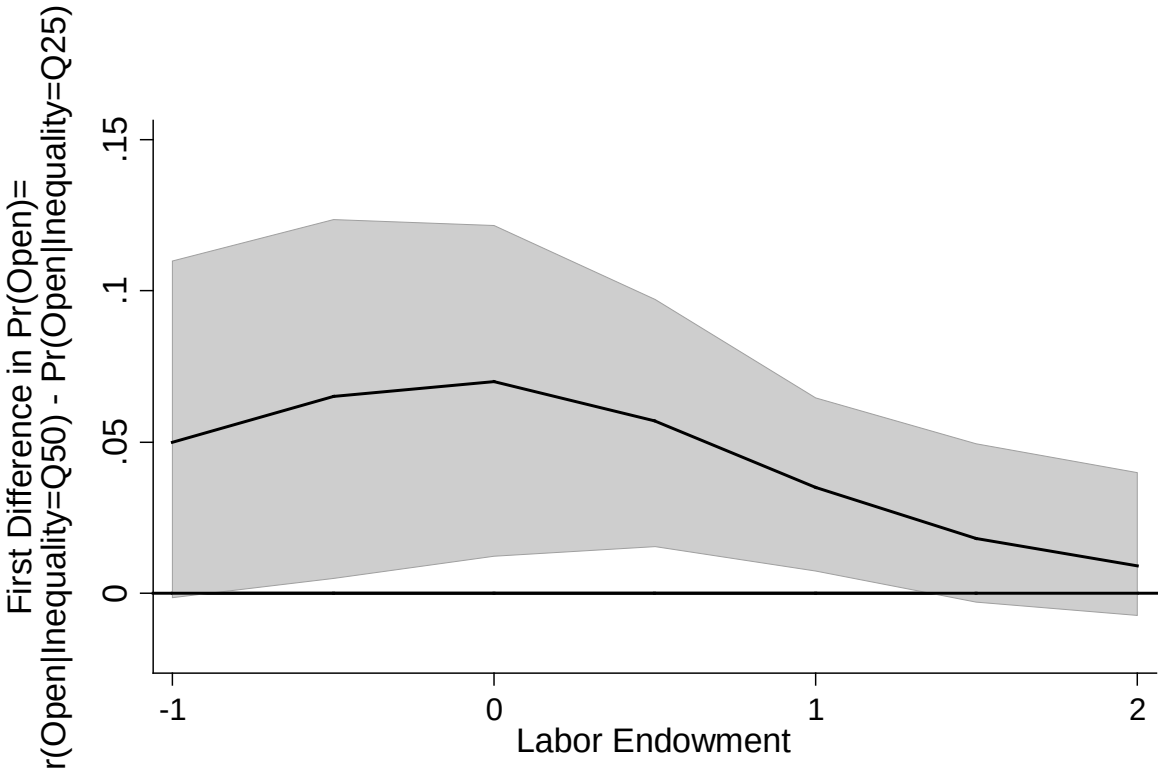
[16] I use the 25th and 75th percentile of *Labor Endowment* to represent labor-scarce and labor-abundant countries, respectively. Other variables are set at their medians except the following four variables generated by the BTSCS method: *Closed Years*, *Spline1*, *Spline2*, and *Spline3*. To minimize the influence of time dependence in the simulation, I set the values of those four variables at 1, -1, -0.88 and -0.54, respectively.



Note: Results are generated with *Clarify* in Stata 11 based on Model 9 in Table 2. All variables are controlled at their medians except *Closed Years* and three time *Splines* (see footnote 16). Dash lines are 90% confidence intervals. Labor endowment of country *i* is measured by ln(*i*'s Population/World Population)/(*i*'sGDP/World GDP).

Figure 2.2 Predicted Probability of Trade Openness under Dictatorships



Note: Results are generated with *Clarify* in Stata 11 based on Model 9 in Table 2. All variables are controlled at their medians except for *Closed Years* and three time *Splines* (see footnote 16). Dash lines are 90% confidence intervals. Labor endowment of country *i* is measured by ln(*i*'s Population/World Population)/(*i*'s GDP/World GDP).

Figure 2.3 First Difference Measuring the Effect of Inequality on Trade Openness

Following the recommendation of Berry, DeMeritt, and Esarey (2010), I further calculate the differences in predicted probabilities when inequality increases from its 25th percentile to 75th percentile under dictatorships at different levels of labor endowment. Figure 2.3 illustrates the results and suggests an inverted U-shaped relationship: Increases in inequality have more impacts on trade openness when a dictatorship's level of labor abundance locates at the middle range. This result is reasonable, not only because the dependent variable is bounded between 0 and 1, but also because countries with higher labor endowment, as implied in Figure 2.3, are already more likely to open trade regimes.

I also check whether rises in inequality facilitate trade openness in democracies. As Model 10 demonstrates, none of the variables associated with inequality or labor endowment is statistically significant.[17] This result is similar to what we have seen in Model 5 and suggests that trade openness in democracies may not be driven by inequality.

Although the evidence I presented so far indicates that rising inequality facilitates trade openness under dictatorships, one reasonable challenge against this finding is the endogeneity between trade openness and inequality. Numerous studies, as discussed in the previous section, contend that trade liberalization increases inequality in both developed and developing countries, so the causal direction may be reversed against the one specified in this chapter. Yet, note that I also investigate cases of democracies in Model 5 and Model 10 in which there is no positive relationship between inequality and trade openness. Thus, the endogeneity issue is not as prevalent as one may argue. Nevertheless, I estimate two more models to deal with endogeneity.

First, I estimate a model using the system generalized methods of moments estimator (system GMM). Theoretically, the system GMM models use both lagged and differenced values of endogenous variables as instruments to deal with endogeneity, because those instruments derived from previous periods are unlikely to be correlated with the error term of the current period. Model 11 presents the results of a GMM model.[18] Since the

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[17] The results do not change if I drop $Inequality \times LaborEndowment$ from estimation.

[18] I use lagged and differenced variables from the last 2 to 10 periods as instruments. I also use robust standard errors to correct the bias generated from the two-step system GMM estimation. The number of instruments is 42, while the number of estimated groups is 85. The Hansen *J*-statistic is 23.19 (*p*-value = 0.51), suggesting that the used instruments are exogenous. For other test statistics of Model 12, see Table 2.2.

interaction term $Inequality \times LaborEndowment$ is positive and statistically significant at 0.05 level, we can make the same inference that a dictatorship's increases in inequality conditional on its labor endowment would facilitate more trade openness.

In addition to using lagged variables as instrumental variables with a system GMM model, I also employ an instrumental variable regression model to deal with the issue of endogeneity. While it is difficult to find a useful instrumental variable for inequality, in this chapter I follow the suggestion of Higgins and Williamson (1999) and use a country's mature cohort size relative to its adult population as an instrument of inequality. Higgins and Williamson argue that a larger portion of mature adults aged between 40 to 59 years old relative to the whole adult population aged between 15 and 69 years old implies lower inequality. Their insight is that when those mature cohorts account for a larger portion of the entire adult population than younger and older age groups (i.e., 15 to 39 years old and 60 to 69 years old, respectively), the inequality of wages in the labor market would be smaller than the one with a larger portion of younger and older laborers. This variable is also adopted by Leigh (2006) and You and Khagram (2005) as an instrument of inequality when they analyzing the effects of inequality on fraternity and corruption, respectively.

With this instrument *Age40-59/Age15-69*,[19] I use the Hausman-Taylor estimator to deal with endogeneity between inequality and trade openness. The reason for me to use this modeling technique is that the variable *Age40-59/Age15-69* is time-invarying in the original dataset constructed by You and Khagram (2005), so the conventional regressional

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[19] Similar to *LaborEndowment*, I take the logarithm of this variable to deal with skewness. The correlation between *Age40-59/Age15-69* and industrial pay inequality is -0.40. The correlation between *Age40-59/Age15-69* and Trade-GDP ratio is -0.13.

models using instrumental variable with two-stage least squares will get incorrect results. Hausman and Taylor (1981) propose an estimator to make time-invarying instruments work in instrumental variable regression models.[20] Model 12 presents the estimation results of Hausman-Taylor instrumental variable regression model, suggesting positive influences of inequality, conditional on labor endowment, over trade openness. Note that the *p*-value of Sargan-Hansen test of overidentifying restrictions is 0.47, indicating that *Age40-59/Age15-69* is a valid instrument for being uncorrelated with the error term.

Taken together, the hypothesis that dictators in labor-abundant countries respond to rising inequality with more trade openness is supported by the empirical evidence and different model specifications in this section.

2.4 Discussion and Conclusion

Based on the Heckscher-Ohlin model of international trade and models of democratic transitions, this chapter argues that increases in economic inequality force dictators to use trade openness as a way of neutralizing democratization threats. The causal mechanism is that abundant unskilled laborers in under dictatorships not only benefit from engaging in international trade, but also become more compliant to the authoritarian rule as inequality reduces. This argument is supported by the data of 80 odd authoritarian regimes from 1963 to 2003.

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[20] The Hausman-Taylor estimator fits panel-data random-effects models in which some of the covariates are correlated with the unobserved individual-level random effect, and none of the covariates are correlated with the idiosyncratic error. For technical details, see Stata Press (2009, 165-179).

The main finding of this chapter has both theoretical and policy implications. First, while the current literature of democratic transitions investigates the impacts of inequality on the prospect of democratization, this chapter pushes this research agenda a step further by showing that dictators can use trade policies to alleviate the pressure of redistribution and to nullify threats of democratization. This result sheds new light on the research agenda of "authoritarian consolidation" in the age of globalization (Li and Reuveny 2009). That is, globalization does not facilitate democratization but delays or even inhibits it. This result contradicts to what proponents of modernization theory assert (Boix and Stokes 2003; Boix 2011; Epstein et al. 2006; Lipset 1959).

The main policy implication of this chapter is to reconsider the role of trade flow between developed and developing countries. Many developed countries believe in the modernization theory, expecting that trade-induced economic growth will facilitate democratization in less developed dictatorships. Thus, those developed countries give preferential trading treatment to less developed countries. Yet, the finding of this chapter implies that engaging in more trade helps dictators sustain their authoritarian rule rather than democratize. Policymakers should be aware of the unintended consequences of authoritarian consolidation when using trade policies to coax dictators to improve the levels of democracy in their countries.

Taking a broader view, my argument is in line with other scholars' work on the relationship between government revenues and regime stability. Based on the selectorate theory (Bueno de Mesquita et al. 2005), there is an emerging literature analyzing how "unearned income" or "non-taxed revenues" stabilize authoritarian regimes (Bueno de Mesquita and Smith 2009; Morrison 2009; Smith 2008). When facing the threat of

revolution, politicians can either increase the provision of public goods if their winning coalition is large, or suppress the provision of public goods but compensate their core supporters with private goods if their winning coalition is small. In either case, politicians distribute available resources as unearned income to their supporters and consolidate their incumbency. Additionally, Morrison (2009) finds that non-taxed revenues will help governments tax elites less in democracies and spend more on welfare policies in autocracies, respectively. The findings of these studies are consistent with the argument of this chapter, because trade premiums enable dictators to increase the overall welfare of their countries, especially that of laborers.

Known limitations of this chapter include poor inequality data as well as further empirical estimation. Although I have tried to use a comprehensive inequality dataset to conduct empirical analysis, some dictatorships are excluded from the analysis due to missing data. One solution is to use other indicators as a proxy of inequality. For example, Blaydes and Kayser (2011) use the consumption of calories as an alternative to inequality. They find that individuals in democracies consume better calories in terms of quantity and quality. Thus, the argument of this chapter can be tested with different proxies of inequality in the future.

Second, although the question of whether or not trade openness facilitates democratic transitions is still unsettled in the field of comparative political economy, this chapter provides a new perspective on why some dictators choose to expand trade as a way to consolidate their regimes. However, the effect of this policy tool is not empirically evaluated in this chapter, and it needs to be carefully scrutinized in future research. In the next chapter, I will elaborate on one possible direction of this research project.

CHAPTER 3
PREFERENTIAL TRADE AGREEMENTS AND AUTHORITARIAN SURVIVAL

One emerging pattern in the international trading system is the growing number of preferential trade agreements (PTAs) that allow signatories to give preferential treatments of goods or services to each other. As of 2011, all member states of the World Trade Organization except for Mongolia have signed at least one (WTO 2011). Not surprisingly, an ongoing research agenda in the field of international political economy focuses on probing the causes and consequences of PTAs signing (Baccini and Dür 2012; Büthe and Milner 2008; Maggi and Rodríguez-Clare 2007; Schiff and Winters 1998).

Despite the extensive literature on PTAs, two puzzles continue to perplex scholars. First, conventional wisdom holds that autocracies tend to isolate themselves from international trade more than democracies since they rely more heavily on protectionism to finance patron-client networks (Aidt and Gassebner 2010; Milner and Kubota 2005). However, this perspective fails to explain why some authoritarian countries have signed more PTAs than many democracies. As Figure 3.1 indicates, while democracies have signed more PTAs than autocracies on average as of 2000, the medians of these two groups are the same (i.e., 5 PTAs).[21] Additionally, it is paradoxical that trade-induced growth enriches

[21] See the database of the World Trade Organization: http://rtais.wto.org/UI/publicPreDefRepByCountry.aspx. (Accessed on August 1, 2011)

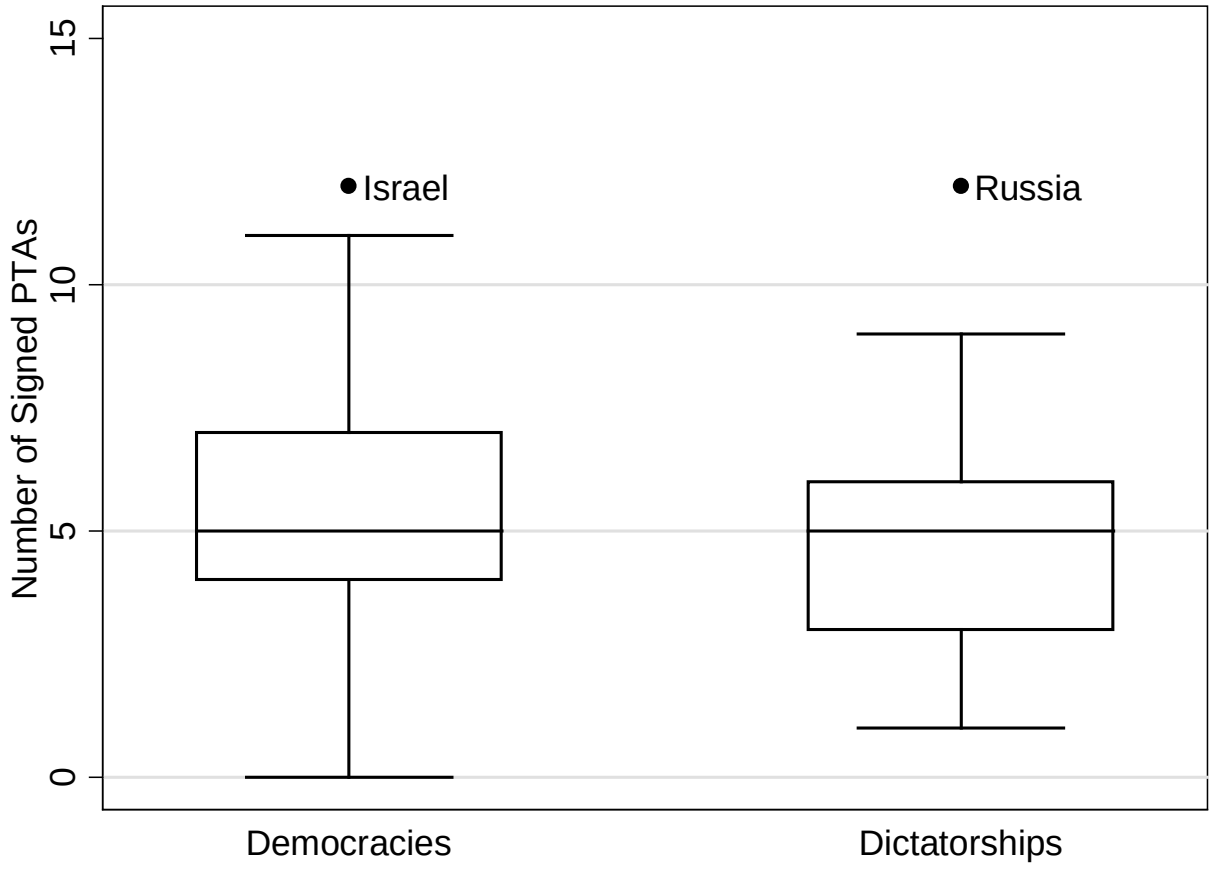

Figure 3.1 Number of Signed PTAs of Democracies and Dictatorships in 2000

ordinary citizens but fails to facilitate democratization in many dictatorships that are actively involved in international trade. Instead, some dictatorships, such as China and Malaysia, become more resilient to the pressures of democratization even after their PTAs induce more trade and economic growth (Nathan 2003; Pepinsky 2009).

This chapter provides a theory to disentangle these two puzzles. The key argument is that dictators sign PTAs as a way of consolidating their authoritarian rule by collecting support and compliance from citizens through gains from trade. Similar to the previous chapter, I develop my argument on the basis of two well-known theories in political

economy: The Heckscher-Ohlin model of international trade and the Metzler-Richard model of redistribution. According to the Heckscher-Ohlin model, countries gain comparative advantages in trading goods produced with their relatively abundant production factors. Since labor is usually more abundant to capital in most authoritarian countries (e.g., China and Vietnam), trading with other countries increases wages as well as the welfare of laborers under dictatorships.

On the other hand, the Metzler-Richard model posits that as the level of economic inequality increases, the popular demand for redistribution also increases. Extending from this insight, scholars have conceptualized democratization as a game of redistribution (Acemoglu and Robinson 2001, 2005). The essence of this theory is that higher economic inequality instigates more discontent among the poor and makes the alternative political scheme of mass redistribution more attractive to them. Meanwhile, rich citizens have a strong incentive to resist redistribution in which they have to pay more taxes. As a result, rising economic inequality in authoritarian states represents a potential trigger for either democratic regime transition or political oppression.

This chapter weaves together the insights from these perspectives and constructs a unifying theoretical framework to account for the calculus of signing PTAs in authoritarian regimes. I argue that when facing the pressure of democratic transition triggered by the demand of redistribution, dictators would respond by signing PTAs to boost their trade that enriches laborers in their countries. In other words, signing PTAs and engaging in economic globalization help dictators ameliorate the pressure of redistribution from the

poor and neutralize threats of democratic transition.[22] Simply put, PTAs reduce economic inequality and contribute to authoritarian survival.

To test both hypotheses, I compile a dataset that covers 88 authoritarian regimes from 1969 to 2000. I first investigate whether signing PTA ameliorates economic inequality among dictatorships. Then I test whether signing PTAs reduces the probability of regime collapse in authoritarian countries. The results suggest that signing PTAs reduces both economic inequality and the probability of authoritarian breakdown. These findings are robust across different model specifications, including using different measurements of the PTA variable and controlling for other variables that are believed to be influential on economic inequality and authoritarian breakdown, respectively.

My findings have significant implications for the literature of authoritarian politics and international political economy. In particular, my theory offers a new perspective to the unsettled debate over the effects of trade openness, or economic globalization in a broader sense, on regime transition. One reason for the lack of consensus among scholars on this issue can be attributed to the measurement issue. Conventionally, trade openness is measured by the ratio between a country's trade volume and its GDP. However, this measurement has been criticized for only tapping into the size of trade flows and not trade openness *per se* (Ahlquist and Wibbels 2012; Pritchett 1996). Other alternative measurements, such as tariff rates or the level of non-tariff barriers, are also problematic

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[22] Although economic globalization usually refers to both trade openness and financial integration into the world economy, due to the limited space of this chapter I mainly focus on the role of trade openness in democratization. For the role of financial globalization, see Li and Reuveny (2003), Eichengreen and Leblang (2008), and Milner and Mukherjee (2009).

because of their poor quality in developing countries (Milner and Kubota 2005), making it more difficult to perform cross-national analysis.

In this chapter, I take a different approach and focus on PTAs signing as the proxy of trade openness. Intuitively, a larger number of PTAs implies more involvement in the world economy and more surrender of rents generated from protectionism (Ornelas 2005). Importantly, my argument challenges the theory of "democratization from the outside-in" by showing that PTAs help authoritarian states pacify domestic discontent stemming from the demand for redistribution and hence consolidate authoritarian rule.

The remainder of this chapter is organized as follows. Section 3.1 briefly reviews studies about the effects of trade openness on regime transition. Section 3.2 proposes a theory of PTA formation in the context of authoritarian countries. I discuss the research design and present empirical analysis in Section 3.3. I discuss the implications of my findings in the concluding section.

3.1 Trade Openness and Regime Transition

How international economy influences domestic politics has been a continuous concern for many social scientists over the past decades. In the literature, one particularly debated issue is the effect of trade openness on the stability of authoritarian regimes. On the one hand, scholars suggest at least three causal mechanisms through which trade openness would facilitate the regime transition for authoritarian countries.

First, modernization theory suggests that trade-induced economic growth fosters democratization, because the enriched middle class would demand more political rights and favor democratic transitions (Lipset 1959; Moore 1966). As Boix (2011, 827)

concludes in a recent study, economic "development has a causal effect on democracy." More specifically, economic growth makes the civil society become more educated and stronger to demand for more democratic practices from the state. Since involvement in international trade, including signing PTAs, induces economic growth (Hur and Park 2012), it can be expected that signing PTAs will facilitate democratic regime transitions.

Second, trade openness eliminates authoritarian leaders' financial resources generated from protectionism and then destabilizes their incumbency. Scholars have argued that political leaders set trade barriers to collect rents from industries so as to sustain their patron-client network and their incumbency (Grossman and Helpman 1994; Krueger 1974; Milner and Kubota 2005; Ornelas 2005). Thus, dictators may be less able to secure their incumbency and face more challenges of democratization forces as their countries engaged in more international trade.

Third, the move to free trade may simultaneously open the door for democratization forces from outside. The idea is that engaging in the world economy creates an international linkage between dictatorships and the outside world, and such a linkage may become an influential leverage for foreign countries to promote democratization in those dictatorships via sanctions or other diplomatic tools. As Pevehouse (2002, 2005) have demonstrated, regional international organizations with a sizeable portion of democratic members may assimilate their authoritarian counterparts into democracies. Levitsky and Way (2005, 29) echo this proposition of "democratization from the outside-in" and contend that that the negotiations of North American Free Trade Agreement not only exposes the Mexican government to more international scrutiny on its domestic politics but also facilitates its political reform, resulting in the peaceful government turnover after

the 2000 presidential election.

On the other hand, however, a rivalry thesis argues that international trade impedes the progress of regime transition for authoritarian states.[23] For instance, Rodrik (1997) argues trade openness creates economic losers (at least in the short run), and governments may fail to compensate them due to fiscal constraints or other political considerations. Under such circumstances, the discontent instigated by economic globalization may result in political instability that further dooms the prospect of democratization. As a consequence, only countries that provide those globalization losers with enough welfare transfers as "safety nets" can increase their levels of democracy when they participate in the world economy (Rudra 2005).

In addition, trade openness enhances state capacity to counter democratization forces in less developed or resource-abundant countries. In particular, the dependency theory purports that authoritarian governments in less developed countries can collide with multi-national companies headquartered in developed capitalist countries (O'Donnell 1988). Under such alliances, authoritarian leaders keep exploiting their citizens and share gains from trade with those multi-national companies. As a result, even though those developing countries are significantly involved in the world economy, they are unlikely to experience regime transitions.

Empirical evidence is equally inconclusive about the effects of trade openness on regime transition. For instance, while Boix (2011) shows trade openness promotes

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[23] Also see Li and Reuveny (2003) and Eichengreen and Leblang (2008) for two comprehensive reviews.

democratization via economic development,[24] Ahlquist and Wibbels (2012) find no relationship between trade openness and democratization once the regional cluster of democratization is controlled in their empirical models. Other studies even find that trade inhibits democratization (Li and Reuveny 2003; Teorell 2010).

This chapter attempts to reconcile this debate through a unique angle by using PTA signing as an alternative measure of trade openness. This measurement is ideal for my analysis for two reasons. First, Ornelas (2005) demonstrates that PTAs destruct rents of protectionism enjoyed by import-competing industries, while Baier and Bergstrand (2007) find that PTAs boost trade of their signatories. Thus, PTAs capture both trade activity and trade barrier at the same time. Second, the data on PTAs, unlike other legal trade barriers, are more transparent and widely available for most countries in the world, so researchers are able to perform empirical analysis with more reliable data.

Using PTA signing as an alternative measure of trade openness, I show that international trade results in authoritarian consolidation. The causal mechanism is that dictatorships engage in international trade to reduce economic inequality and preempt citizens' demands for redistribution. In so doing, dictators are able to collect citizens' compliance.

Taking a broader perspective, my argument is in line with the emerging literature on how dictators utilize available policy tools to maintain their dominant incumbency and

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[24] When investigating the effects of economic development on democracy, Boix (2011) follows the practice of Acemoglu et al. (2008) and uses a country's trade-share with other countries as an instrument of GDP. However, while Acemoglu et al. (2008) find no causal effects of income on democratization, Boix (2011) demonstrates that increases in income facilitate democratic transition and contribute to democratic consolidation. Boix (2011) also finds a declining marginal effect of income on the level of democracy.

then achieve "authoritarian consolidation." (e.g., Brownlee 2007; Gandhi 2008b; Levitsky and Way 2010; Magaloni 2006). One prevalent argument in the literature highlights how the establishment of quasi-democratic political institutions, such as competitive elections and binding legislatures, helps authoritarian leaders co-opt or collapse the opposition forces. Specifically, by creating political institutions, authoritarian leaders bind their hands to limit their capacity of seizing citizens' property (North and Weingast 1989) and share their power with opposition forces (Boix and Svolik 2010; Gandhi and Przeworski 2006, 2007; W. Kim and Gandhi 2010).[25] As a result, authoritarian regimes with binding political institutions not only enjoy higher economic development but also have longer regime horizon (Gandhi and Przeworski 2007; J. Wright 2008b).

Parallel to this insight, in the next section I argue that authoritarian leaders choose to embrace international trade as a way to neutralize the threat of democratization and thus to consolidate their rule. I will elaborate this argument in the next section.

3.2 International Trade and Authoritarian Survival

The central argument of this chapter is that signing PTAs helps dictators consolidate their authoritarian rule because it introduces external resources to ease domestic demand of redistribution. Accordingly, I expect that signing PTAs would reduce both economic inequality and the probability of regime breakdown under dictatorships. In other words, I will test the following two hypotheses:

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[25] Using Olson's terminology, some authoritarian leaders establish political institutions to become "stationary bandits" who protect their citizens from being looted by other "roving bandits" (Olson 1993, 2000).

- **Hypothesis 3.1**: *Signing PTAs reduces economic inequality under dictatorships.*
- **Hypothesis 3.2**: *Signing PTAs reduces probability of authoritarian breakdown.*

I develop my argument on the basis of two existing theories. First, the Heckscher-Ohlin model of international trade posits that countries engaging in globalization can gain from trade by utilizing the comparative advantages and exporting goods produced with their domestically abundant factors (Heckscher and Ohlin 1991). Since the production costs of using abundant factors are lower, the wage premiums of owners of those abundant factors will increase after trading with other countries where the same production factors are scarce (Stolper and Samuelson 1941). Thus, workers in labor-abundant countries, typically developing and authoritarian ones, can enjoy gains from trade after their countries sign PTAs with other capital-abundant countries (Baccini 2012).[26]

There are two political implications of the Heckscher-Ohlin-Stolper-Samuelson mechanism. On the one hand, Rogowski (1989) argues that political coalitions will form along with the cleavage of production factors in the area of trade politics. That is, owners of abundant production factors support free trade while owners of scarce factors oppose it. On the other hand, gains from trade expansion can further mitigate domestic conflicts because it promotes economic development and increases the costs of using violence (Barbieri and Reuveny 2005). Taken together, trade expansion fosters political stability since governments can use gains from trade to collect compliance from ordinary citizens

[26] For example, since China is endowed with abundant labor, the wages of Chinese workers have increased significantly after China's engagement in the world economy after 1980s. The effect of wage-enhancement is especially true for workers in urban areas and the eastern coastal regions in China (Chen and Ravallion 2004).

(Adserà and Boix 2002; Rodrik 1998).

The second headstone of my theory is the Metlzer-Richard model of redistribution and its extension to models of democratic transitions. In their seminal work, Metzler and Richard (1981) demonstrate that the preference of the median voter determines the size of government (i.e., redistribution). The intuition is that when the wage of mean income earners is higher than that of median income earners, the latter would support higher levels of tax rates on their richer fellow citizens and redistribute the taxed money so as to increase their own welfare. Thus, the model predicts that the demand for redistribution increases with the level of inequality.

While subsequent studies engage in a lengthy debate regarding whether or under what conditions the Metzler-Richard model would hold, what is more pertinent to this chapter is the literature on democratization and redistribution. Based on the Metzler-Richard model, Acemoglu and Robinson (2001) conceptualize democratic transition as a solution to the time-inconsistency problem involving redistribution. The idea is that when economic inequality increases, dictators need to deal with the demand for redistribution from the poor either via coercive repression or policy concession. However, when facing the poor's threat of revolution dictators' policy commitment of redistribution cannot be seen as credible, since they can always renegade their promise after the revolutionary threat is nullified. Under such circumstances, democratization solves this credibility issue because it enables the median voter to dictate policies in the future. As a result, the occurrence of democratic transition depends on how dictators and the rich compromise with the poor.[27]

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[27] In their subsequent book, Acemoglu and Robinson (2005) propose an inverted

Based on those theories, I extend the theoretical insights from Acemoglu and Robinson's seminal work and examine the impact of globalization on the regime stability of authoritarian regimes. I conceptualize trade openness, including signing PTAs, as an alternative way to increase the welfare of the poor without taxing the rich. In other words, engaging in international trade enriches laborers in authoritarian countries and hence reduces income inequality and eases their demand for redistribution. Ultimately, signing PTAs helps dictators consolidate their authoritarian regimes.[28]

Note that I focus primarily on the impact that signing of PTAs has on authoritarian breakdown, instead of focusing on the impact of PTAs on democratic transition as investigated by previous studies. The difference between these two concepts is subtle but crucial to our analysis. The theoretical models developed by Acemoglu and Robinson (2001, 2005) and Boix (2003) assume that changes in inequality would initiate a regime's process of democratic transition. However, their models do not conclude that democratic

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U-shaped relationship between inequality and democratic transition. On the one hand, rich citizens have strong incentives to resist redistribution via costly repression when inequality is high. On the other hand, poor citizens have few incentives to initiate revolution when inequality is low because they will not benefit much from the post-revolution redistribution. Therefore, according to Acemoglu and Robinson, democratization is most likely to happen when the level of inequality is in the middle level. By contrast, Boix (2003) posits a different perspective on the impacts of inequality on democratization, arguing that transition to democracy becomes more likely when inequality is low and asset mobility is high.

[28] The underlying assumption of this argument is that trade openness ameliorates income inequality. Although some studies find that trade openness increases inequality (for a review, see Goldberg and Pavcnik 2007), others studies present the opposite evidence (Anderson 2005; Babones and Vonada 2009). An eclectic perspective on this debate suggests that trade openness increase inequality in developed countries but reduces it in developing and less developing one. In the empirical section of this chapter, I demonstrate that countries signing PTAs in the past 5 years have lower inequality than those without any PTA signed in the past 5 years.

transition is the only equilibrium. In particular, the rich facing inequality can either resist the demand for redistribution by suppressing the poor's revolution threats or accept democratization that enhances the poor's welfare. When the rich decide to repress the poor's revolutionary threats, the current regime will experience political instability rather than democratic transition. If neither the rich nor the poor can dominate the other group, the confrontation between two groups may collapse the regime. Yet, the type of subsequent regime is not identified in the models established by Acemoglu and Robinson (2005) and Boix (2003). According to other studies, the military may intervene in these conflicts and take over the government (Acemoglu, Ticchi, and Vindigni 2010; Svolik 2012).

Put differently, authoritarian breakdown is a broader concept than democratic transition. As Brownlee (2009, 522) succinctly points out, an authoritarian regime experiences democratic transition when it is "succeeded by a sustained period, at least minimally, democratic rule." By contrast, it may be also the case that the collapsed authoritarian regime is replaced by another authoritarian government, military junta in particular. From our theoretical perspective, inequality intensifies the pressures to democratize that lead to the collapse of an authoritarian government, but it does not ensure the succession and continuation of a democratic regime because the new political coalition may again fail to respond to popular demands for redistribution (Houle 2009). Based on this differentiation, our theoretical interest focuses on how PTAs prolong authoritarian survival rather than how they facilitate democratic transition.

Before proceeding to the empirical sections, I should emphasize that my argument is parallel to a recent study by Hollyer and Rosendorff (2012), which holds that signing PTAs reduces the uncertainty of trade policies and favors politicians' incumbency. They

convincingly show that the effect of PTAs signing on political survival is stronger in democratic than in authoritarian countries, since politicians in democracies are subject to electoral accountability and hence have more incentives to signal policy certainty.

My theory differs from that made by Hollyer and Rosendorff (2012) in two distinct aspects. First, I only focus on cases of dictatorships, because I believe that authoritarian leaders' logic of political survival is driven by distributional effects rather than policy certainty or electoral competition (Bueno de Mesquita et al. 2005; Acemoglu and Robinson 2001, 2005; Boix 2003). As Hollyer, Rosendorff, and Vreeland (2011) demonstrate elsewhere, economic policies in dictatorships are less transparent than in democracies, where political leaders under the pressure of electoral competition need to make their policies more transparent and credible for voters. Meanwhile, authoritarian leaders are less constrained by electoral competition (Schedler 2006), so policy certainty does not weigh as heavily in dictators' calculus of political survival as it does in democratic rulers'. In other words, although politicians in both regimes types have similar incentives to sign PTAs to prolong their incumbency, they are subject to different constraints and need to be analyzed separately.

Second, the outcome of interest in this chapter is regime survival, not the incumbency of individual politicians. This difference results from my theoretical concern about the distributional effects of PTAs on the overall regime stability. While it is theoretically important to investigate how PTAs affect the incumbency of individual dictators, I regard it as a difficult empirical task due to the heterogeneity of political leaders in authoritarian countries. As I have argued, PTAs have distributive effects across different groups within a political regime, and the process for those effects to fully realize may not be limited within

one or two terms in office. Thus, I take a more conservative step to focus on regime survival instead of individual incumbency under dictatorships.

3.3 Data, Operationalization, and Empirical Analysis

To test my hypotheses, I compile a dataset that includes 1777 observations of 88 authoritarian regimes from 1969 to 2000. The Appendix A.3 presents the list of authoritarian regimes analyzed in this chapter.

- **PTAs and Inequality**

I first test whether signing PTAs reduces economic inequality that imposes the pressure of democratic transition on authoritarian leaders. In this chapter, I use the Gini index of Standardized World Income Inequality Database established by Solt (2009) as the dependent variable.

I construct the key independent variable, PTA signing, from the dataset by Büthe and Milner (2008). Specifically, I create five dummy variables to indicate whether a country signs at least one PTA in the past one to five years. This operationalization of signing PTA is more conservative and preferable than using the cumulative number of PTAs in a given year as coded in Büthe and Milner's dataset, because it avoids imposing a strict assumption that each PTA has an equal effect on the outcome of interest. For example, it may be problematic to claim that the North American Free Trade Agreement has the same effect as the Mexican-Bolivia Free Trade Agreement on the authoritarian survival in Mexico.

In addition, I control for a set of variables that are found influential on inequality, including economic development, external resources, and the size of winning coalition.

Economic Development. The level of economic development is perhaps the most

influential factor for income inequality. The well-known "Kuznets curve" argues that as economy develops, inequality rises first but declines in the long run. Kuznets (1955) also suggests that the process of urbanization reduces inequality because it enhances the wealth of low-income groups and lessens the rural-urban income disparity. Thus, I include *Urban Population, Logged GDP per capita* and *Economic Growth* in my empirical models. The data on those variables are taken from the World Development Indicators (WTO 2010).

External Resources. I take into account the effects of other economic resources on inequality, such as foreign direct investment (FDI) and trade openness. Scholars have found that FDI increases inequality, because it introduces technological upgrading and distorts the income distribution between skilled and unskilled laborers (Basu and Guariglia 2007; Beyer, Rojas, and Vergara 1999). On the other hand, however, trade openness enriches the low-income unskilled groups for the creation of employments and wage premiums in less developed countries (Babones and Vonada 2009; Reuveny and Li 2003) and thereby reduces inequality. Based on my theory, I expect that trade openness would have negative effects on inequality reduction.[29]

Oil Revenues. The literature suggests that oil revenues may be associated with lower inequality. For example, Ross (2007) claims that resource-rich countries can reduce inequality via better allocation of their resources. Morrison (2009) further demonstrates that oil revenues lesson the fiscal burden of dictators when they increase social spending that can mitigate inequality. Thus, I control for the effects oil revenues on inequality. I use Harber and Menaldo's (2011) data on a country's overall revenue from oil production

[29] The data on FDI and trade openness are taken from UNCTAD and WDI, respectively. Both variables are measured by a country's total volumes divide d by its GDP.

divided by its population. I take the natural logarithm of this variable to address skewness.

Size of Winning Coalition. According to Malesky, Abrami, and Zheng (2011), dictatorships with larger winning coalitions tend to have lower inequality in authoritarian countries, since politicians subject to larger winning coalitions need to implement more welfare transfers to members of their winning coalitions and then engender more equality. Thus, I control for the effects of winning coalition in my empirical models. The data of winning coalition in this chapter is taken from Bueno de Mesquita et al. (2005).

Appendix A.4 reports the summary statistics of variables used in this chapter.

Model Specification. To estimate whether signing PTAs reduces inequality, I apply OLS regression models with panel-corrected standard errors (Beck and Katz 1995). Following the suggestion Plumper, Troeger, and Manow (2005), I correct for the first-order autocorrelation (AR1) in my empirical estimation. To avoid reversed causality, I lag all independent variables for one period

Empirical Results. Table 3.1 reports the empirical results. As shown in Table 3.1, the PTAs variables have negative and significant coefficients across all models, indicating that countries signing PTAs in the past 5 years will have lower inequality. In addition, the effect of PTAs on reduction of inequality seems to increase as time lapses.[30] This finding supports my theory that signing PTAs helps political leaders reduce inequality under dictatorships. Meanwhile, I also find that higher levels of urbanization, more oil revenues, and larger sizes of winning coalition are associated with lower inequality, while more FDI and GDP per capita are associated with more inequality.

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[30] However, the dummy variable of PTA becomes statistically insignificant when we consider a duration of six years.

Table 3.1 Effects of Signing PTAs on Economic Inequality

	Mode 1	Model 2	Mode 3	Model 4	Model 5
Dummy of Signed PTAs	-0.290*				
(Past 1 Year)	[0.167]				
Dummy of Signed PTAs		-0.481**			
(Past 2 Years)		[0.216]			
Dummy of Signed PTAs			-0.710**		
(Past 3 Years)			[0.287]		
Dummy of Signed PTAs				-0.673**	
(Past 4 Years)				[0.299]	
Dummy of Signed PTAs					-0.773***
(Past 5 Years)					[0.192]
Urban Population	-0.132***	-0.111**	-0.073	-0.113***	-0.109***
	[0.050]	[0.045]	[0.045]	[0.042]	[0.040]
Logged GDP per capita	2.966**	2.611**	0.514	2.495*	2.981**
	[1.370]	[1.261]	[1.480]	[1.354]	[1.249]
GDP Growth	-0.019	-0.021	-0.008	-0.018	-0.027
	[0.020]	[0.021]	[0.022]	[0.021]	[0.020]
FDI	0.182**	0.198*	0.177	0.186	0.186*
	[0.093]	[0.119]	[0.113]	[0.115]	[0.111]
Trade Openness	-0.007	-0.01	-0.01	-0.009	-0.006
	[0.008]	[0.006]	[0.007]	[0.007]	[0.007]
Logged Oil Income	-0.467***	-0.441***	-0.143	-0.389**	-0.445**
per capita	[0.176]	[0.151]	[0.176]	[0.151]	[0.173]
Winning Coalition	-1.023	-1.606**	-2.485**	-1.540**	-1.318*
	[0.793]	[0.683]	[0.975]	[0.746]	[0.770]
Constant	28.057***	30.063***	44.237***	30.876***	26.496***
	[8.859]	[8.255]	[9.674]	[9.041]	[8.265]
N	775	755	740	730	724
No. of Countries	68	68	68	67	67
R^2	0.969	0.967	0.964	0.96	0.962

Note: The dependent variable is Gini index taken from Solt (2009). All right-hand side variables are lagged for one period. Panel-corrected standard errors are included in brackets.
* p<0.1, ** p<0.05, *** p<0.01.

- **PTAs and Authoritarian Breakdown**

I further test the second hypothesis on the relationship between PTAs and authoritarian breakdown. The dependent variable, authoritarian breakdown, is taken from Geddes' dataset on dictatorships. Geddes (1999a) uses a binary variable to indicate whether or not an authoritarian regime collapses in a given year.[31] I limit my sample within authoritarian countries and drop countries that have polity scores larger than 6.[32]

I retain the same PTA variables specified in Table 3.1, and I include the following variables to control for the potential confounding effects on regime breakdown: *Logged GDP per capita, GDP Growth, Military Size, Logged Oil Income per capita, Regional Democratization, Conflict,* and *Single-Party.*

Economic Development. To control for impacts of economic development on democratic transition, I incorporate both GDP per capita and GDP growth in my empirical models. The data of both variables are taken from the World Development Indicators (WTO 2010). Following the standard practice, I take the natural logarithm of the GDP per capita to address the skewness.

Size of Military. The coercive capacity of the state, as argued by Albertus and Menaldo (2012), is an important factor determining the survival of authoritarian regimes. Intuitively, if the state has stronger capacity to counter opposition forces, the regime is less likely to

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[31] If an authoritarian regime prevails in a given year, it enters into the next year of observation and coded as 0 in the dataset. If this regime collapses, it is coded as 1 and exits the observation process in the following year. However, if this regime is just replaced by another authoritarian regime, it stays in the dataset with a new time count starting at 1 to record the age of this newly established authoritarian regime.

[32] I also use a polity score of 0 as the threshold of democracy and dictatorship. The key results reported in this chapter remain the same.

collapse. I include the same variable measuring state capacity used in their empirical model, and I expect authoritarian regimes with larger military sizes to be less likely to collapse.[33]

Natural Resources. A recent debate involves whether natural resources have fueled authoritarianism and delayed democratization (Harber and Menaldo 2011; Ross 1999). In this chapter, I view it as an empirical issue. I use Harber and Menaldo's (2011) data on a country's overall revenue from oil divided by its population to measure the abundance of natural resources. I take the natural logarithm of this variable to address skewness.

Regional Democratization. It is often argued that democratization has a "domino effect" among neighboring countries (Leeson and Dean 2009; Pevehouse 2005). The political unrests in the Middle East in 2011 appear to confirm this argument. Thus, I incorporate the variable used by Harber and Menaldo (2011) to measure the intensity of democracies for a given country's region. Their variable *Regional Democratization* calculates "the percentage of democracies in a country's geographic-cultural region." I expect this variable to be positive.

Conflict. In this research, two competing theories have motivated us to control for the number of conflicts an authoritarian regime is involved in. On the one hand, more conflicts against the government imply higher propensity of a regime to collapse, since it belies the regimes' incapacity to control those conflicts. On the other hand, however, it is highly possible that the emergence of conflicts will lead to the growth of military size, consequently contributing to authoritarian consolidation. Thus, I am theoretical agnostic

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[33] Specifically, I use the data on military size collected by the Correlates of War Project Version 4.0 (Singer 1988), and take the natural log of the number of military personnel per 1000 persons in a country.

regarding effects of conflicts. The variable *Conflict* in my models measures how many armed conflicts an authoritarian government is involved in a given year. The data of this variable are taken from the Uppsala Conflict Data Program (Gleditsch et al. 2002).

Single Party. According to Geddes (1999a, 1999b), single-party authoritarian regimes are more resistant to regime breakdown and enjoy longer time horizons, not only because their political elites are more likely to compromise with each other, but also because the opposition forces are more likely to be co-opted. By contrast, military or personalistic regimes are more vulnerable to the split among elites and have higher probability of experiencing regime breakdowns. I control for the effect of authoritarian regime types in my empirical models by including a dummy variable of single-party dictatorships.

Model Specification. In this chapter, the dependent variable is a binary variable of regime survival, and the observations are time-series-cross-sectional for 88 authoritarian regimes from 1969 to 2000. Thus, I apply binary time-series-cross-sectional (BTSCS) models to conduct empirical analysis. According to Beck et al. (1998), BTSCS models are grouped duration models that can better deal with temporal dependence than the standard logit models. Specifically, the BTSCS models use time splines to "trace out the path of duration dependence" for the dependent variable (Beck et al. 1998, 1270). Thus, I include the age of an authoritarian regime with three time splines of it in my models. Also, I lag all explanatory variables with one period to mitigate the problem of reversed causality. I also use clustered standard errors to account for unit heterogeneity and heteroskedasticity.

Empirical Results. I report the estimation results in Table 3.2. In brief, my theoretical conjecture regarding the effect of signing PTAs on authoritarian breakdown is well supported by the empirical evidence. In Models 6 to Model 10, I investigate how signing

PTAs in the past one to five years affects authoritarian breakdown. The results indicate that signing PTAs prolongs the survival of authoritarian regimes in the next five years, but those newly signed PTAs have no statistically significant effects on regime breakdown of dictatorships after the sixth year.

The results on control variables are broadly consistent with prior studies. First, the signs of *Logged GDP per capita* and *GDP Growth* are negative, but only the latter are statistically significant in all models. The negative and statically significant coefficient of *GDP Growth* provides support for my theory. Since signing PTAs creates economic growth (Wacziarg and Welch 2003), dictators can enjoy more compliance from their citizens if they can keep the economy growing via PTA formation. Furthermore, my models agree on what Geddes (1999a, 1999b) has already pointed out: Single-party authoritarian regimes are less likely to collapse due to elite compromise and cooptation of opposition forces.

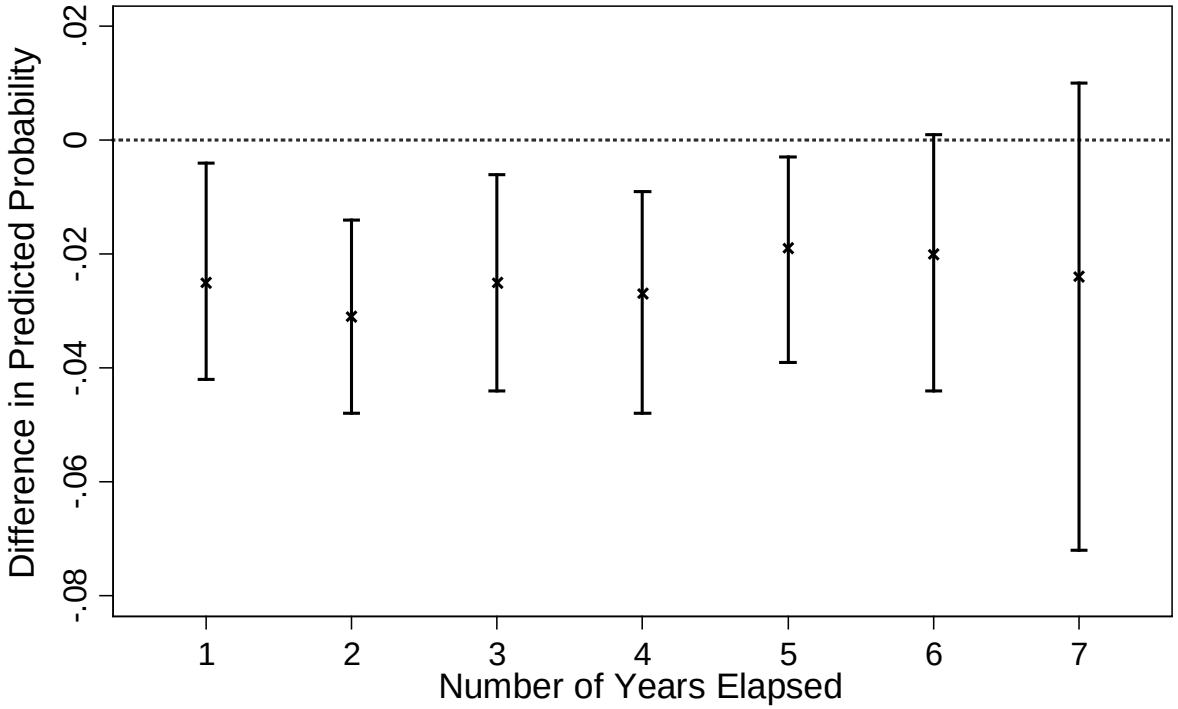
Empirical results also suggest that the state's coercive capacity to counter the anti-regime momentum is crucial for authoritarian breakdown. The variable *Logged Military Size* has negative signs that are statistically significant in all models, indicating that a stronger authoritarian regime is better equipped to resist threats of regime breakdown. Meanwhile, the positive and statistically significant signs of variables *Conflict* and *Regional Democratization* imply that dictatorships beleaguered by more violent conflicts or democratization forces are more likely to collapse.

Table 3.2 Effects of Signing PTAs on Authoritarian Breakdown

	Model 6	Model 7	Model 8	Model 9	Mode 10
Dummy of Signed PTAs	-1.043*				
(Past 1 Year)	[0.576]				
Dummy of Signed PTAs		-1.183**			
(Past 2 Years)		[0.460]			
Dummy of Signed PTAs			-0.782**		
(Past 3 Years)			[0.368]		
Dummy of Signed PTAs				-0.830**	
(Past 4 Years)				[0.351]	
Dummy of Signed PTAs					-0.536*
(Past 5 Years)					[0.286]
Logged Military Size	-0.334**	-0.278*	-0.278**	-0.16	-0.191
	[0.143]	[0.145]	[0.139]	[0.143]	[0.142]
Logged GDP per capita	-0.109	-0.201	-0.235	-0.312	-0.247
	[0.216]	[0.212]	[0.210]	[0.219]	[0.213]
GDP Growth	-0.044***	-0.046***	-0.042**	-0.044***	-0.040**
	[0.016]	[0.018]	[0.017]	[0.017]	[0.017]
Logged Oil Income	-0.127	-0.112	-0.116	-0.108	-0.134*
per capita	[0.080]	[0.076]	[0.075]	[0.077]	[0.081]
Regional Democratization	0.023***	0.023***	0.021***	0.022***	0.020**
	[0.008]	[0.008]	[0.008]	[0.008]	[0.008]
Conflict	0.339**	0.331**	0.322**	0.314**	0.350**
	[0.135]	[0.143]	[0.142]	[0.146]	[0.138]
Single-Party	-0.797***	-0.834***	-0.713**	-0.745**	-0.690**
	[0.309]	[0.317]	[0.304]	[0.305]	[0.302]
Constant	-4.333**	-3.190*	-2.88	-1.671	-2.253
	[1.867]	[1.851]	[1.793]	[1.913]	[1.911]
N	1275	1231	1196	1170	1155
No. of Countries	88	88	88	87	86
Log Pseudolikelihood	-195.193	-188.092	-191.092	-180.056	-181.511

Note: All right-hand side variables are lagged for one period. Time count of authoritarian regime duration and three time splines are not reported. Clustered standard errors are included in brackets.

* p<0.1, ** p<0.05, *** p<0.01



Note: Predicted robabilities with 90% confidence intervals are simulated on the basis of Model 6 to Model 10 with Clarify in Stata 11. Variables are controlled at their means, except for Single-Party, which is controlled at 1 in every simulation.

Figure 3.2 Signing PTA and Differenced Predicted Probability of Regime Breakdown

To better capture the effect of signing PTAs on authoritarian survival, I use the statistical package *Clarify* developed by King, Tomz, and Wittenberg (2000) to simulate the predicted probabilities of regime breakdown based on the estimation of Model 6 to Model 10. I further estimate two models to investigate effects of PTAs in the sixth and seventh year after they are signed. I simulate and calculate the differences in predicted probabilities between signing and not signing PTAs for countries in my sample.[34] Figure 3.2 illustrates the first-differences in predicted probabilities with their 90% confidence

[34] The variables are controlled at their means, except for *Single Party* (set at 1).

intervals, suggesting that the effects of signing PTAs on prolonging authoritarian survival last for five years.

3.4 Discussion and Conclusions

In this chapter, I investigate the impacts of signing preferential trade agreements (PTAs) on authoritarian survival. Based on the Heckscher-Ohlin model of international trade and the Metzler-Richard model of redistribution, I argue that signing PTAs helps dictators enrich poor citizens without taxing rich ones in their countries. As a result, signing PTAs reduces economic inequality in authoritarian regimes, and consequently neutralize the pressure of democratization and hence prolong the duration of authoritarian regimes. My argument is supported by the data collected from 88 authoritarian regimes during 1969 and 2000 after controlling for political and economic variables that may affect economic inequality and/or authoritarian breakdown.

My findings have several implications for the current literature. First, I offer a new perspective to the debates over whether economic globalization facilitates democratization. While scholars use trade inflow or membership in international organization as the measurements of globalization, I use PTA signing as an alternative measurement of economic globalization. With this measurement of PTA formation, I find that signing PTAs helps dictators maintain their authoritarian rule because PTAs ease their budget constraints of redistribution and gather compliance among citizens with gains from trade.

Second, my findings contribute to the understanding of authoritarian consolidation (Göbel 2011), especially for cases like China and other countries with significant involvement in the world economy. As modernization theory fails to explain why so many

dictatorships like China do not collapse as their economies expand through their engagement in the world economy, I provide a plausible explanation to this puzzle from the logic of authoritarian survival. Specifically, authoritarian rule can be strengthened when dictators are financed by external resources, such as trade premiums. As a result, dictators have incentives to sign PTAs with foreign countries as a way to enrich their poor citizens without taxing the rich in their countries.

Taking a broader view, my theory is in line with other scholars' works on the relationship between government revenues and regime stability. Based on the selectorate theory (Bueno de Mesquita et al 2005), Smith (2008) argues that unearned income collected by the government, such as natural resources and foreign aid, can help political leaders to counter revolutionary threats. When facing the threat of revolution, politicians can either increase the provision of public goods if their winning coalition is large, or suppress the provision of public goods but compensate their core supporters with private goods, if their winning coalition is small. In either case, politicians distribute available resources as unearned income to their supporters and consolidate their incumbency. Morrison (2009) makes a similar argument. He finds that non-taxed government revenues, such as natural resources, foreign aids, and government borrowing, have significant effects on regime stability in both democracies and autocracies. Specifically, those non-taxed revenues help governments tax elites less in democracies and spend more on welfare policies in autocracies, respectively. In other words, non-taxed revenues ease the government's budget constraints when implementing redistributive policies. The findings of these studies are consistent with my theory, because trade premium enables dictators to increase the overall welfare of their countries, especially that of laborers.

Additionally, the findings in this chapter cast a doubt on modernization theory elaborated by Lipset (1959). Proponents of modernization theory contend that economic development promotes democratization, because the newly enriched middle class will demand more political rights to protect their property from state intervention (Moore 1966). However, the enriched middle class may not necessarily be opposed to authoritarian rule as their countries become more prosperous. Instead, they are highly likely to be more conservative in that they do not want the process of democratic transition, associated with political instability and social unrest, to damage their current quality of life and benefits. One striking example is China. Although the Chinese economy grows exponentially, its middle class has become more conservative and supportive of the authoritarian status quo (Unger 2006; T. Wright 2010). Based on my theory, one can argue that due to foreseeable political instability, citizens may not want to sacrifice their current trade premiums created by PTAs in exchange for future redistribution associated with costly democratic transition.

Nevertheless, my theory subjects to one immediate objection: If signing PTAs can stabilize authoritarian rule, why do we not observe that autocracies, on average, sign more PTAs than democracies? While a comprehensive investigation on why some authoritarian countries sign more PTAs than others is beyond the scope of this chapter, here I propose two plausible explanations. First, not every dictatorship faces the same levels of income inequality and democratization pressure. Meanwhile, as I have discussed previously, some dictators are better equipped with resources, such as oil or foreign aids, to lessen the pressure of redistribution. Due to the difference in economic endowments, dictators in authoritarian countries have different incentives to rely on PTAs to secure their incumbency.

Second, although it is beneficial for dictators to sign PTAs, not every dictator can successfully implement this strategy. A dictator faces two constraints when he wants to expand the trade regime of his country via PTAs. Internationally, autocracies are less credible than democracies, so they may not be able to induce their trade partners to sign PTAs (Mansfield, Milner, and Rosendorff 2002). Domestically, although signing PTAs can introduce new resources to meet the domestic demand for redistribution, it also implies that dictators have to give up existing rents and resources at hand that finance their patron-client network (Ades and Di Tella 1999; Kurer 1993). As Keefer (2007) compellingly argues, politicians in young democracies are more prone to provide targeted goods via their patron-client network, because they are not able to make credible commitment of providing public goods. Therefore, even though trade openness, as a sort of public goods, relieves the pressure of redistribution and helps dictators create more compliance among citizens, signing PTAs is not equivalently attractive to every dictator. Nevertheless, my theory still prevails: Once a dictatorship has successfully signed PTAs with other countries, its probability of experiencing regime breakdown will decrease.

CHAPTER 4
DISGUISED PROTECTIONISM UNDER AUTHORITARIANISM

In the literature, scholars have drawn two tentative conclusions on trade politics of authoritarian countries. First, politicians are more likely to liberalize trade when their authoritarian control loosens or when their countries democratize (Baccini 2012; Frye and Mansfield 2003, 2004; Milner and Kubota 2005; Milner and Mukherjee 2009). Second, politicians under single-party dictatorships are more likely to adopt liberal trade policies than their counterparts under personalistic, military, or monarchy dictatorships, not only because they need to maintain larger winning coalitions via free trade, but also because they have longer time horizons of their incumbency to invest in public goods that generate long-term revenues (Bueno de Mesquita et al. 2005;Hankla and Kuthy 2012; Milner and Kubota 2005).

However, both arguments underestimate the role of special interests groups in trade politics (Grossman and Helpman 1994, 2001). On the one hand, special interests groups are usually privileged by protectionism and included in politicians' winning coalitions, so they have a strong incentive to resist trade liberalization when politicians introduce it. On the other hand, politicians under single-party dictatorships need to maintain larger winning coalitions, but it does not necessarily imply that special interests groups will be totally excluded due to their demand for protectionism. Taken together, what is missing in the literature is a theory to explain how dictators interact with special interests groups when they make trade policies.

In this chapter, I argue that although single-party dictatorships are more open to trade

with lower tariffs, they also develop a more sophisticated form of protectionism to meet the demand of special interests groups. In particular, conventional wisdom holds that dictators under single-party dictatorships need to liberalize trade as a sort of public goods to benefit more members of their winning coalitions that sustain their incumbency. Yet, this chapter demonstrates that tariff rates under single-party dictatorships are more particularly designed on each category of imported products and thus more dispersed than those under other types of dictatorships, including personalistic, military, and monarchy dictatorships. More specifically, politicians under single-party dictatorships are more likely to set different tariff rates on different kinds of products, even though those products are similar to each other. Besides, I argue that tariffs are more dispersed under dictatorships with higher levels of authoritarianism, defined by the state capacity to repress citizens and the level of institutionalized autocracy, since authoritarianism enables dictators to collect revenues in more efficient ways. Thus, protectionism is exercised via the complexity rather than the level of tariffs under single-party dictatorships or under dictatorships with higher levels of authoritarianism.

The case of Malaysia provides a typical example of the coexistence of low but dispersed tariff rates. Malaysia has been politically dominated by the National Front since 1974. While Malaysia has reduced its tariff rates from 17.5% in 1988 to 9.5% in 2002, at the same time its tariff dispersion increased from 91% to 210% (Athukorala 2005). According to Athukorala and Wai-Heng (2007), one main source of tariff dispersion in Malaysia comes from the protection on automotive industry. In particular, the Malaysian government established the national automobile corporation Proton in 1983 and gave it enormous protection since then, including duty exemptions and different tariffs on parts of

foreign cars (Jomo 1994; WTO 2002).[35] As a consequence, the overall trend of trade liberalization does not prevent the Malaysian government from protecting its automotive industry. Instead, trade liberalization contributes to the complication of tariffs on automotive imports.

Figure 4.1 further illustrates the core argument of this chapter. In Figure 4.1, I plot the averages of tariff dispersion and authoritarianism for dictatorships from 2000 to 2009.[36] I also draw two simple regression lines with 95% confidence intervals for single-party and other dictatorships, respectively. As shown in Figure 4.1, tariff dispersion increases with the level of authoritarianism under single-party dictatorships. However, a similar pattern does not exist among other types of authoritarian regimes.

The contrast of tariff dispersion between single-party and other dictatorships in Figure 4.1 presents the following puzzle that motivates this chapter: If single-party dictatorships are more open to trade with lower tariffs (Hankla and Kuthy 2012; Milner and Kubota 2005), why are their tariff schedules more dispersed than other dictatorships? According to trade economists, a dispersed tariff schedule usually results from a more complicated tariff schedule and causes more trade distortion, because exporters and importers have an incentive to reclassify their products into other categories subject to lower tariffs (Daly and

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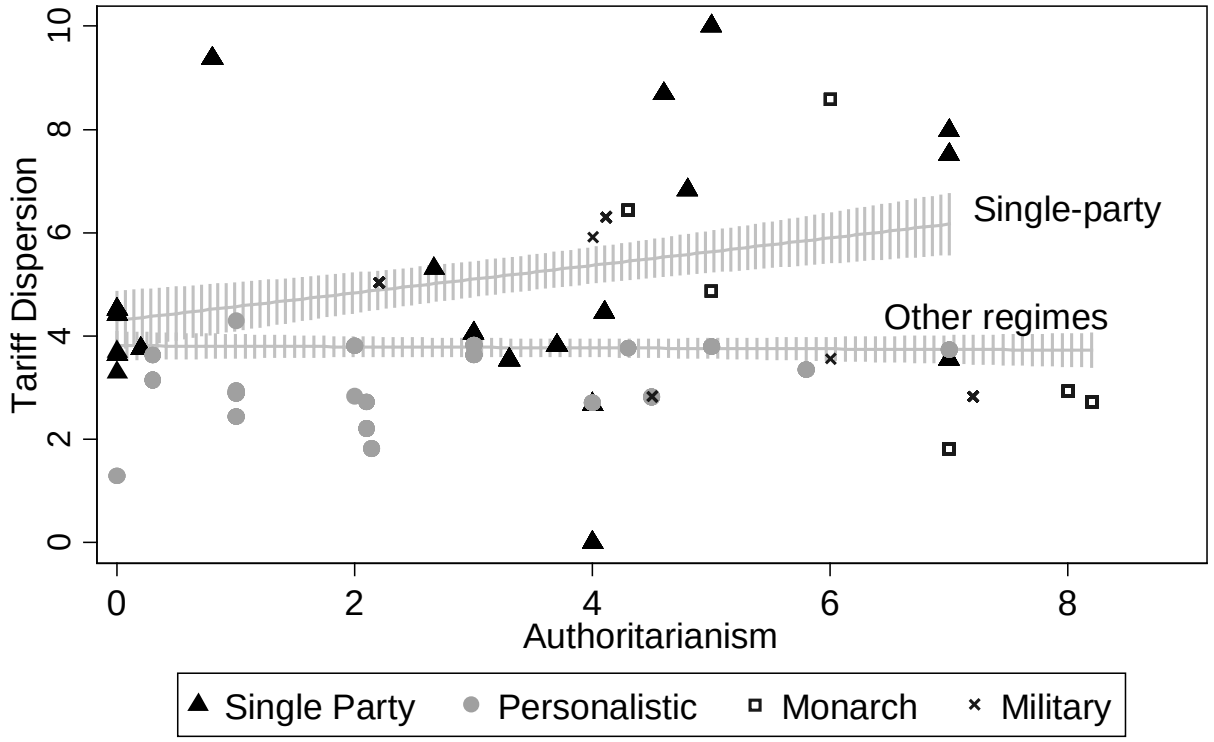
[35] The political connection between Proton and the Malaysian government even made the latter stopped buying imported cars as official vehicles but purchases from Proton during the financial crisis in 1997 (Pepinsky 2009, 129–130).

[36] The measurement of tariff dispersion is taken from the Economic Freedom of the World Project (Gwartney, Lawson, and J. Hall 2011). The measurement of authoritarianism is taken from the variable *Autoc* of the Polity IV Project (Marshall and Jaggers 2002). As I shall discuss operationalization of variables later in the empirical section, a higher value of *Autoc* indicates more institutionalized authoritarian rules.



Note: Vertical bars represent 95% confidence intervals. The measure of authoritarianism is taken from the variable *Autoc* of the Polity IV Project (Marshall and Jaggers 2002).

Figure 4.1 Tariff Dispersion and Authoritarianism under Dictatorships, 2000–2009

Kuwahara 1998; Deardorff 2006). Thus, a dispersed tariff schedule, like a high tariff rate, is not only associated with rent-seeking behavior and corruption (Gatti 1999; Krueger 1974), but also regarded as an alternative form of protectionism in the literature (Gwartney, Lawson, and J. Hall 2011; OECD 2000; Oliva 2000).[37] Additionally, Ehrlich (2011) finds that tariff complexity will impede trade volume in developed countries. This chapter aims to explain the seemingly inconsistent trade policies under single-party

[37] Thus, some economists suggest developing countries using a uniform tariff rate to lower the administrative costs and corruption of custom officials (Gatti 1999; Panagariya and Rodrik 1993).

dictatorships.

In this chapter, I propose two causal mechanisms linking authoritarianism to dispersed tariff schedules. First, when political leaders have to maintain larger winning coalitions under single-party dictatorships, it does not mean that they will exclude all special interests groups from their winning coalitions. Instead, they need to differentiate which special interests groups should be included in and which ones be excluded from their winning coalitions. Thus, dictators will selectively respond to the demand for protectionism or free trade, resulting in different and dispersed tariffs on imported goods. Second, when a dictatorship has institutionalized its authoritarian rule, its political leaders are more capable of balancing forces between protectionism and free trade to stay in power. They are also more capable of collecting taxes with a more dispersed and complicated tariff schedule. Both arguments are supported by the data collected from 42 dictatorships during 2000 and 2009.

This chapter contributes to the literature in two ways. First, it advances the understanding about trade politics under dictatorships. While scholars have found that single-party dictatorships are more open to trade with lower tariffs (Hankla and Kuthy 2012; Milner and Kubota 2005), this chapter offers a caveat to those who might conclude that single-party dictatorships are less protectionist than other dictatorships. This finding is similar to what Kono (2006) finds about the difference in the pattern of protectionism between democracies and dictatorships: Although democracies have lower tariffs, they also have higher non-tariff barriers (NTBs) than dictatorships. According to Kono (2006, 369), these NTBs enable democracies to achieve "optimal obfuscation that allows politicians to protect their markets while maintaining a veneer of liberalization." This chapter

demonstrates how similar economic statecraft is adopted by authoritarian leaders.

Second, this chapter also contributes to studies on authoritarian consolidation in the age of globalization. As modernization theory predicts that economic growth will facilitate democratization (Boix and Stokes 2003; Boix 2011; Epstein et al. 2006; Lipset 1959), it is puzzling that many dictatorships, especially those under single-party rules, are still resilient to democratic transition when they their economy prospers. What is more puzzling is that political leaders under some dictatorships intentionally establish institutions or adopt policies that generate economic growth (Gandhi 2008a, 2008b; J. Wright 2008a). One prevalent approach to analyze both puzzles focuses on authoritarian institutionalization. Specifically, dictators endeavor to institutionalize their authoritarian rule and consolidate their incumbency in two ways. For one thing, dictators share some powers with opposition forces within political institutions in exchange for their support (Gandhi and Przeworski 2007; Svolik 2009). For the other, with those binding institutions both incumbent and opposition can enjoy higher economic growth that will further garner more compliance with the authoritarian status quo among citizens (Gallagher and Hanson 2007, 2009). This chapter extends this research agenda a step further, showing how adeptly setting tariff schedules can be a feasible policy tool for dictators to build their winning coalitions and secure their incumbency.

Before proceeding, I should emphasize that the argument of this chapter is highly relevant to the "access point theory" elaborated by Ehrlich (2007, 2011). According to Ehrlich, more access points to the policymaking process in a political system will result in more policy bias and policy complexity, because special interests groups have more access that "will enable them to push policy more in their favor" (Ehrlich 2011, 12). According to

Ehrlich (2011), example of access points include federalism, bicameralism, number of parties, and number of district sizes. Since special interests groups are usually more capable of overcoming the collective action problem (Olson 1971), they are more likely to take advantage of those access points to influence policy outcomes. Thus, Ehrlich (2007, 2011) argues that more access points would result in higher levels of protectionism in the area of trade policy, including higher tariffs and more complicated tariff schedules. I will elaborate on how to apply the access points theory to analyze trade politics under dictatorships in Section 4.3.

The rest of this chapter is organized as follows. Next section briefly reviews theories of trade liberalization under dictatorships. In Section 4.3, I elaborate on an argument to explain why tariffs rates are lower but more dispersed under single-party dictatorships. In the empirical section, I discuss the operationalization of key variables and perform a series of statistical analysis to test the hypotheses regarding trade politics under dictatorships. The final section draws some implications of my findings and offers concluding remarks.

4.1 Theories of Trade Liberalization under Dictatorships

The current literature develops two approaches to analyze trade politics under dictatorships. The first approach, elaborated by Milner and Kubota (2005), applies the selectorate theory to investigate the pattern of trade liberalization in both democratic and autocratic regimes. According to Bueno de Mesquita et al. (2005), political leaders' incentives to invest in public goods, such as government expenditure or free trade, are determined by two groups of citizens: Selectorate (S) and winning coalition (W). The

selectorate is the group of residents within a country who have the power to express a preference over the selection of leadership; while *W* is the set of individuals within *S* whose support is essential for a leader to remain in power. Bueno de Mesquita et al. (2005) argue that the *W/S* ratio in a polity matters to many policy outcomes. Specifically, the size of *W* determines how many private goods a political leader can exclusively provide for members of his winning coalition, so the significance of private goods decreases as *W* increases. Hence, one important implication of the selectorate theory is that political leaders subject to larger winning coalitions are more likely to provide public goods instead of private goods.

Based on the selectorate theory, Milner and Kubota (2005, 115) argue that "the optimal level of protectionism for political leaders is a declining function of the size of the winning coalition." In other words, political leaders under democracies, which usually require politicians to maintain larger winning coalitions than do dictatorships, have to adopt free trade policies as a sort of public goods to benefit more members of their coalitions.[38] This proposition that democracies trade more than autocracies is reaffirmed by a recent work of Aidt and Gassebner (2010). Additionally, Milner and Kubota (2005)

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[38] Strictly speaking, whether free trade can be regarded as a sort of public goods is open to debate. From the perspective of international trade theories, free trade does not benefit everyone, since import-competing industries or owner of scarce production factors would suffer. Thus, free trade does not fit to the definition of public goods (i.e., indivisible and non-exclusive). The main reason to justify that free trade is a public goods is that "[i]t ensures consumers -- and everyone is a consumer -- that they can have access to quality goods at competitive prices rather than be limited to access to government-propped up industries that are likely to be inefficient ... and over priced relative to the world market price for comparable quality." (Bueno de Mesquita et al. 2005, 196). However, this justification does not consider the distributional effects of trade on the society (Hiscox 2002; Rogowski 1989).

find that single-party dictatorships, also due to their larger winning coalitions, have highest level of trade openness with lowest tariff barriers than those of other types of dictatorships. This finding is consistent with a recent study using different model specifications and measurements of winning coalition in authoritarian countries (Hankla and Kuthy 2012). Taken together, politicians subject to larger winning coalitions are more likely to adopt more liberal trade policies that induce more trade flows.

Other studies demonstrate that the democratization process forces politicians to adopt liberal trade policies, as it usually enlarges the sizes of winning coalitions and fragmentizes political authority. For example, Frye and Mansfield (2003, 2004) analyze cases of post-communist countries and find that nascent democracies are more likely liberalize their trade regime as their political powers are more fragmented among elites. They also find that trade liberalization is more likely to occur after elections. Baccini (2012) extends this argument a step further. He argues that newly democratized countries are more likely to form PTAs with developed countries, but not with developing or less developed ones. The causal mechanism behind this phenomenon is straightforward: Newly democratized countries want to stabilize their trade relationship with developed countries as a way to gain higher welfare of their citizens, especially the welfare of the median voter (Mayer 1984). At the same time, they still compete with other developing countries in terms of production and market access to developed countries. Thus, nascent democracies are less likely to sign PTAs with other developing countries (Baccini 2012). Those studies provide a dynamic perspective to explain why democracies adopt more liberal trade policies than do autocracies.

The second approach to analyze trade politics under dictatorships focuses on how

dictators' perceived time horizons of their incumbency affect their trade policies. Clague et al. (1996) are among the first generation of scholars who argue that political leaders' time horizons affect their incentives to invest in better policies, including provision of infrastructure and protection of property rights. Simply put, if politicians expect to stay in power for a longer period, they are more likely to invest in better policies that generate more revenues for them (Levi 1988; Olson 1993). This theoretical perspective is adopted by recent studies on how dictatorships with longer regime time horizons make long-term policies, including the allocation of foreign aid (J. Wright 2008b), the pattern of health policy (Dionne 2011), and involvement in corruption (Chang and Golden 2010).

In the area of trade policies, Hankla and Kuthy (2012) find that single- and multi-party dictatorships, due to their regime stability and longevity, are more likely to implement liberal trade policies. The reason for those party-dictatorships to embrace trade openness is intuitive: Trade openness will foster long-term economic development that benefits both politicians and their citizens, and only those dictators with longer time horizons of their incumbency would choose to implement free trade. Otherwise, they will keep relying on protectionism to finance their authoritarian rule.

To sum up, the current literature reaches two tentative conclusions about trade politics under dictatorships. First, dictatorships trade less than democracies. Second, single-party dictatorships have higher trade openness with lower tariff rates than other types of dictatorships, including personalistic, military, and monarchy dictatorships. Nevertheless, in the next section I will discuss one important dimension ignored by the current literature: The role of special interests groups.

4.2 Tariff Dispersion under Single-Party Dictatorships

It is well-documented that special interests groups are influential over trade policies in democracies, because they are more organized (Davis 2003; Olson 1971), informative (Milner 1997), or endowed with resources with which they can influence politicians' decisions (Grossman and Helpman 1994, 1996; R. L. Hall and Deardorff 2006). In other words, this interest-group perspective regards protectionism as a result of lobbying that distorts policy outcomes in favor of special interests (Grossman and Helpman 2001).

The leverage of special interests groups can be further constrained or magnified by political institutions, such as electoral rules or party systems. Take studies on trade politics for example. Scholars have found that democracies using majoritarian electoral rules are more protectionist in both tariff and non-tariff barriers than their counterparts using proportional rules, because majoritarian rules usually create more incentives for legislators to protect special interests from their districts (Evans 2009; Grossman and Helpman 2005; Rickard 2012). Similarly, Nielson (2003) argues that presidentialism is less associated with protectionism than parliamentarianism, because the President has to get the majority support in the entire national district.

Ehrlich (2007; 2011) proposes a general theoretical framework, the access points theory, to encompass studies analyzing how political institutions affect trade politics. First, he argues that the political institutions can be conceptualized as "access points" to policymaking process. Second, he claims that a political system with more access points, such as the number of parties or the size of electoral districts, generates more policy bias and complexity, because special interests groups have more opportunities to penetrate into

to policymaking process via those access points. Put differently, policies are more particularly designed when there are more access points within a political system. One important implication of the access points theory to trade politics is that countries with more access points have higher and more complicated tariff rates (Ehrlich 2011).

While Ehrlich provides a convincing theory to explain how different establishments of political institutions generate access points that distort policy outcomes, he does not apply the access point theory to dictatorships with a belief that access points play a different role in non-democracies. First, political systems under dictatorships are either closed or less institutionalized, so they might not have clear access points with which special interests can penetrate into policymaking process. Second, even if there are access points under dictatorships, many authoritarian leaders restrict interest groups from either organizing or becoming influential over their governments. Nevertheless, Ehrlich (2011, 184-185) argues that studies on political institutions under dictatorships, such as the establishment of legislature or opposition parties (Gandhi 2008b), can shed light on the application of access points theory to non-democracies. This chapter concurs with this insight and applies the access points theory to analyze the complexity of trade policy under dictatorships. In particular, I argue that single-party dictatorships, due to their larger winning coalitions, have more access points that result in more dispersed and complicated tariffs schedule.

Although a summary measure of access points under dictatorships does not exist in the literature, I follow Ehrlich's practice of using political party as a proxy of access points when analyzing trade politics under dictatorships. Specifically, Ehrlich (2007; 2011) focuses on how different establishments of political institutions create access points in democracies, and he finds that the number of access points increases with the number of

parties but decreases with party discipline in democracies. Based on this party-based operationalization of access points, in this chapter I argue that dictatorships governed by a single party have more access points than other types of dictatorships, including military, monarchy, and personalistic regimes.

My claim that single-party dictatorships have more access points is supported by two existing theories that are discussed in the previous section: The selectorate theory elaborated by Bueno de Mesquita et al. (2005) and its extension to the typology of dictatorships proposed by Geddes (1999a, 1999b), respectively. For one thing, the selectorate theory contends that political leaders have to maintain winning coalitions that can sustain their incumbency. When the size of winning coalition increases, political leaders are less able to rely on private goods to finance their winning coalitions. Instead, they have to increase the provision of public goods to induce more individuals to stay in their winning coalitions. For the other, scholars have found that single-party dictatorships, due to their larger winning coalitions and longer regime time horizons, are more open to trade with lower tariffs than other types of dictatorships.

Although larger winning coalitions and longer regime time horizons of single-party dictatorships lead to more provision of public goods, including free trade (Bueno de Mesquita et al. 2005; Hankla and Kuthy 2012), it does not mean that special interests groups will be totally excluded from dictators' winning coalitions. As forcefully argued by Levi (1988, 11–17), "[p]olicies are the outcome of an exchange between the ruler and the various groups who compose the polity," and "[r]ulers whose power resources diminish will either have to offer more in exchange or give up some of their ends." In other words, dictators cannot rule alone but seek for support from other elites or social groups. Based

on this insight, I expect that larger winning coalitions require authoritarian leaders to meet the demand of special interests groups in a more selectively way that leads to different policy outcomes.

In the trade polity area, a larger winning coalition not only enforces dictators to give up collecting high tariffs from imported goods in a uniform way, but also induces them to differentiate their trade policies in response to members and non-members of their ruling coalitions. Specifically, dictators can exclude special interests groups that have less contribution to their incumbency. Meanwhile, the special interests groups could increase their "bid" on protectionism or free trade in exchange for dictators' extension of favor. Since some special interests groups can still be privileged by dictators while most others cannot, the overall tariff schedules will have lower means but become more dispersed and complicated under dictatorships with larger winning coalitions, especially under single-party dictatorships.

Based on my discussions so far, the first hypothesis of this chapter is as follows:

- **Hypothesis 4.1:** *Tariff schedules are more dispersed under single-party dictatorship than under personalistic, military, or monarchy dictatorships.*

One may immediately criticize this argument by claiming that the role of special interests is insignificant under dictatorships, where the political systems are more closed and dictators usually disallow influential interest groups to exist. However, many studies have found that special interest politics matters to policy outcomes in authoritarian countries as well. Pepinsky (2008), for example, demonstrates how the economic interests of politicians' ruling coalitions result in different policy responses to economic crisis in Indonesia and Malaysia, respectively. During the Asian Financial Crisis of 1997-1999, the

Indonesian government was supported by the owners of fixed and mobile capitals and responded to the crisis by floating its currency as well as tightening its macroeconomic policy. Those adjustment policies favor capital owners but hurt laborers. By contrast, the Malaysian government is supported by laborers and owners of fixed assets, so it took expansionary macroeconomic policy and imposed capital controls to favor them. Therefore, special interests groups can have significant leverage over policy choices under dictatorships. Another example is China's exchange rate policy. Steinberg and Shih (2012) find that interest groups in the export sector play a significant role in Chinese government's choice of maintaining a undervalued currency that significantly favors Chinese exports. Thus, the key question is not whether there are special interests groups under dictatorships, but how to identify their leverage over authoritarian leaders' decision-making.

In addition to the size of winning coalition, the level of authoritarianism affects tariff dispersion under dictatorships as well. Here, the concept authoritarianism includes two dimensions. First, it refers to the level of institutionalization of authoritarian rule, such as the competitiveness of executive power. Second, authoritarianism is also indicative of state capacity to collect revenues as well as oppress citizens. In other words, a higher level of authoritarianism under a dictatorship implies that the state has more control over the society and more capacity to collect as well as allocate revenues. For example, Escribà-Folch (2008) shows that dictatorships collect more taxes when they can institutionalize their authoritarian rule, because these institutionalized autocracies induce more legitimacy, credibility and compliance among citizens. Less institutionalized dictatorships, by contrast, have to tax on international trade more because it is easier for

their politicians to collect revenues from both imports and exports than from personal income. Based on this reasoning, one can further infer that more institutionalized dictatorships are more capable of imposing differentiated tax rates on imports to maximize their revenues. Accordingly, a higher level of authoritarianism implied by more institutionalization of autocracy may result in a more dispersed tariff schedule.

Gehlbach (2008) offers another theoretical perspective to explain how a higher level of authoritarianism will result in more dispersed tariffs. While previous literature focuses on how the strength of special interests contributes to different level of taxes, Gehlbach (2008) argues that it is the "taxability" among different economic sectors that determines politicians' decision to set taxes. Since not all economic activities can be taxed by the state, politicians will support those economic sectors and industries with public resources when those are easier to be taxed in the future. In other words, the differences in tariff rates among imported products can be attributed to their heterogeneous "taxability" from politicians' perspective on taxation. Although Gehlbach (2008) does not investigate whether politicians will impose higher or lower tariffs on imported goods,[39] one reasonable application of his argument to this chapter is that the taxability of imported goods also depends on the level of authoritarianism. Specifically, higher levels of authoritarianism increase politicians' capacity to efficiently impose optimal tariffs on different imported goods, making the tariff rates more complicated and dispersed.

To summarize my discussions on the relationship between authoritarianism and tariff

[39] While it is intuitive to argue that a higher "taxability" of an imported goods will be taxed more, it does not imply an imported goods with lower taxability will be taxed less. A politician may still impose an extreme high tariff rate on the hard-to-tax goods in favor of domestic producers.

dispersion, the second hypothesis of this chapter is as follows:

- **Hypothesis 4.2:** *The level of tariff dispersion increases with the level of authoritarianism.*

4.3 Empirical Analysis

Data. To test the hypotheses of this chapter, I compile a dataset that includes 42 dictatorships during 2000 and 2009. I use the dataset of authoritarian regimes constructed by Geddes (1999) and updated by Wright (2009). The unit-of-analysis is country-year. It should be clarified that the data quality on authoritarian regimes are usually poor, and the data used in this chapter are no exception. Among 610 observations of 75 dictatorships in Geddes' dataset, I can only find data available for about 300 observations of 42 dictatorships. Nevertheless, most missing values come from countries with relatively closed and backward economy where economic data are not publicly available (e.g., Cambodia and North Korea). In addition, about 40% of the missing data are from single-party dictatorship, so those missing values are slightly balanced between single-party dictatorships and other types of dictatorships combined. Therefore, the issue of missing data should not significantly invalid my analysis.

Appendix A.5 reports the list of dictatorships and their types included in this chapter.

Dependent Variable. The dependent variable in this chapter is *Tariff Dispersion*. While there are many ways to measure tariff dispersion, one common and intuitive way is to calculate the standard deviation of a country's tariff rates (Cooper 1964; Daly and Kuwahara 1998; Gatti 1999). A higher standard deviation of tariffs implies that the overall

tariff rates are more dispersed around the mean tariff. The data on this variable are taken from the annual reports of the Economic Freedom of the World (EFW) Project (Gwartney, Lawson, and Hall 2011).[40] To mitigate the leverage of outliers with extremely high standard deviations of tariff rates, this variable is normalized from 0 to 10. As the EFW Project uses higher numbers to indicate more economic freedom (i.e., lower standard deviation of tariffs), I reorder the variable and use higher numbers to represent higher tariff dispersion.

Independent Variables. Based on the two hypotheses specified in the previous section, there are two key explanatory variables in this research, single-party dictatorships and authoritarianism. To test the Hypothesis 4.1, I include a dummy variable *Single Party* to represent single-party dictatorships in Geddes' dataset. Thus, the baseline group in the empirical estimation would include military, monarchy, and personalistic dictatorships.

To test Hypothesis 4.2, I operationalize authoritarianism from three different theoretical perspectives. First, I use the variable *Institutionalized Autocracy* included in the Polity IV Project as a proxy of authoritarianism. In particular, this variable is constructed additively on the basis of five criteria that evaluate how autocratic a country is in terms of political competition and political participation (Marshall and Jaggers 2002).[41] Thus, a higher value of *Institutionalized Autocracy* not only refers to a higher level of authoritarian

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[40] Available at http://www.freetheworld.com/index.html (Access on March 1, 2012).

[41] The five criteria include (1) Competitiveness of executive recruitment, (2) Openness of executive recruitment, (3) Constraints on chief executive, (4) Regulation of participation, and (5) Competitiveness of participation. A higher value of this variable indicates more institutionalized authoritarian rules with less political participation and competition, and thereby a higher level of authoritarianism.

control in an autocracy, but also implies that authoritarian leaders are more capable of setting tariffs rates in response to forces of protectionism and free trade within their winning coalition. I expect that the variable *Institutionalized Autocracy* have positive impacts on tariffs dispersion.

Second, I use regime durability as another measure of authoritarianism. Theoretically, if an authoritarian regime is stable with a long duration of survival, it has strong durability to resist threats of regime breakdown. Meanwhile, regime durability, as Smith (2004, 2005) argued, may result from successful manifestation of authoritarianism, such as the utilization of natural resources and the establishment of parties. In other words, the level of authoritarianism should base on the level of regime durability under dictatorships. It should be clarified, however, that regime duration is not linearly related to regime durability, because a regime is fragile when it is just established or when it is on the edge of breakdown. I include a year count of regime duration and its squared term to estimate how regime durability affects tariff dispersion via exercises of authoritarianism. If the inverted U-shaped relationship does exist, I expect that the signs of *Durability* and $Durability^2$ are positive and negative, respectively. The data on regime duration of dictatorships are taken from the Polity IV Project (Marshall and Jaggers 2002).

The third measure of authoritarianism in this chapter is the size of military. Military troops represent the coercive capacity of state to suppress its opposition forces. Albertus and Menaldo (2012, 152) find that dictatorships with larger military troops are more resistant to democratization, because "a large security force is a function of a strong state, which has a better ability to generate resources, defend its borders, and maintain its monopoly on the use of violence." Following their insight, I use the size of military to

measure the level of authoritarianism. I take the natural logarithm of the number of military personnel plus 1 among every 1000 persons in a country.[42] I expect that a larger value of this variable *Military Size* is indicative of a higher level of tariff dispersion. The data on military size, measured by is taken from the Correlates of War (COW) Project Version 4.0 (Singer 1988).

Control Variables. I include a set of variables in the empirical analysis. First, I control for the effect of mean tariff rates. From the statistical perspective, a tariff schedule is dispersed when there are outliers in the distribution of tariff rates.[43] Thus, it is recommended in the literature to control for the mean tariff when researchers investigate tariff dispersion (Ehrlich 2011; Mikic and Gilbert 2009). The variable of *Mean Tariff* is taken from the EFW Project and normalized from 0 to 10, with a higher value indicating a higher mean tariff.

Second, conceptually tariffs are taxes on imported products, so a country may have a more differentiated and dispersed tariff schedule if it imports a lot of from other countries. Accordingly, I control for the total amount of imports (in US dollars) of each dictatorship. I take the natural logarithm of this variable to address its skewness. The data on *Logged Import* are taken from the World Development Indicators (World Bank 2011).

Third, I control GDP per capita in my models for two reasons. One the one hand, a country with higher economic development may have a more differentiated tariff schedule,

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[42] The qualitative results do not change in my empirical estimation if I add 0.1 instead of 1 to the original variable in the COW Project.

[43] The existence of outliers may not invalid the argument of this chapter, since those outliers may result from a large number of access points favoring certain special interests groups.

since its citizens may be more able to purchase foreign goods. On the other hand, a developed economy is tend to use other trade barriers rather than tariff level to protect its market (Kono 2006). Thus, I am theoretically agnostic to the effect of economic development on tariff dispersion. The data on GDP per capita are taken from the World Development Indicators (World Bank 2011). I take the natural logarithm of it to address skewness.

Appendix A.6 reports the summary statistics of each variable used in this chapter.

Model Specification. Since the dataset of this research includes the data from 42 dictatorships during 2000 and 2009, the pooled time-series cross-sectional analysis usually violates the basic assumptions of ordinary least squares (OLS) estimation and results in non-spherical errors. In this chapter, I follow the advice of Beck and Katz (1995) to use OLS regression with panel-corrected standard errors (PCSEs). In addition, changes of tariffs are usually slow in most countries (O'Reilly 2005), so I correct for first-order serial correlation (AR1) when conducting empirical analysis. To mitigate the issue of reversed causality, I lag all right-hand-side variables for one period.

Empirical Results. Table 4.1 presents the estimation of OLS regression with PCSEs. Model 1 investigates the effects of authoritarian institutionalization and establishment of a single party on tariff dispersion under dictatorships. The results support both hypotheses that tariff schedules are more dispersed under dictatorships governed by a single party and by higher levels of authoritarianism. This finding remains unchanged when I use *Durability*, $Durability^2$, and *Military Size* to measure authoritarianism in Model 2 and Model 3, respectively. However, when I estimate a full model with all measures of authoritarianism

and a dummy variable of single-party dictatorships, the statistical significance of *Authoritarian Institutionalization* collapses. This statistical insignificance may result from the collinearity between *Authoritarian Institutionalization* and *Durability*, since the correlation between these two variables is 0.48.

The control variables are worth some discussions, too. The coefficient of *Mean Tariff* has an expected sign across all models. That is, higher mean tariffs are associated with higher tariffs dispersion under dictatorships, suggesting that protectionism can be exercised in both the mean level and the overall dispersion of tariffs under dictatorships. Second, the statistically significant signs of *Logged Impor*t in Model 1 and Model 2 indicate that a higher volume of import results in more dispersed tariffs. However, the statistical significance of *Logged Import* collapses after *Military Size* is controlled for. The negative signs of *Logged GDPpc* in the empirical models suggest that as a country has higher economic development, it will rely less on tariff barriers. This result is consistent with the finding of Kono (2006) but contradictory to that of Ehrlich (2011). I leave detailed examination on this difference for future work.

In addition to the dataset of dictatorships constructed by Geddes and coauthors, I use another dataset of dictatorships established by Cheibub et al. (2009). In their dataset, Cheibub et al. construct a variable to measure how many parties exist outside the regime front. There are three categories of this variable: No party, One party or multiple parties that belong to regime front, and Multiple Parties. Based on this variable, I construct three dummy variables for each category and use "No party" as a baseline category in my empirical estimation.

Model 5 presents the empirical results and suggests that one-party dictatorships have

more dispersed tariffs than dictatorships without any parties. Nevertheless, it is interesting that tariff schedule of multi-party dictatorships are less dispersed than those of their one-party counterparts. At first glance, this result seems to invalidate the theory of this chapter. However, it is reasonable to get this result from the theoretical perspective of this chapter. Dictatorships may allow the formation of other parties to either generate legitimacy or to split opposition forces (Gandhi 2008). Once opposition parties cannot form a united front to overthrow the regime, a dictator does not need to maintain a large winning coalition to keep his incumbency. Put differently, the existence of multiple parties outside the authoritarian government splits elites and dilutes the influence of special interests groups, making tariffs less complicated.

Readers may argue that the dependent variable used in Model 1 to Model 5 is not an ideal measure of tariff complexity, because the value of standard deviation is sensitive to outliers or extreme values. It is likely that a country has a simple but more dispersed tariff schedule than others (Ehrlich 2011; Kono 2007). For example, a country may have just two of tariff rates, 10% and 90%, and its tariff dispersion is larger than another country with complicated tariff rates that are centering around 50%. Although tariff dispersion cannot perfectly reflect tariff complexity in this simple example, a tariff schedule with a large variance may result from extraordinary influences of some special interests groups lobbying for privileges.

Nevertheless, I use Kono's data on tariff particularism to conduct additional robustness checks. Based on the tariff data of Trade Analysis and Information System constructed by the United Nations, Kono (2007) calculates the concentration of tariff rates applied to imported products in 113 countries during the 1990s. If a country uses only a

few tariff rates to cover many categories of imported goods, it implies that its tariff schedule is less complicated than the one with more tariff rates on the same amount of imported goods. In other words, imposing different tariffs on the same coverage of imported goods symbolizes "particularism" on specific products, and this particularism may result from lobbies of special interests groups. While Kono measures tariff particularism with an interval between 0 and 1, I multiply it by 10 to make it consistent with the variable of tariff dispersion used in the previous models.[44]

Since Kono's dataset of tariff particularism contains a lot of missing values for authoritarian countries,[45] I use OLS with robust standard errors clustered at the country level to conduct empirical analysis. In Model 6, I use Geddes and coauthors' sample of authoritarian regimes. The results are similar to what I have derived from the previous models: Dictatorships ruled by a single party or large military have more dispersed tariff schedules. In Model 7, I use the dataset of dictatorships constructed by Cheibub et al. (2009) and get similar findings, with the exception that the variables on regime durability become statistically insignificant but still bear the expected signs.

To summarize, the empirical evidence suggests that a dictatorship ruled by a single party or by a higher level of authoritarianism has a more dispersed and ad hoc tariff schedule.

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[44] The correlation between the standard deviation of tariff and tariff particularism is 0.57 as of 1995.

[45] Kono's dataset include 295 yearly observations of 113 countries from 1990 to 2000. However, only 85 out of 295 are collected from dictatorships.

Table 4.1 Authoritarianism, Single-Party Dictatorships, and Tariff Dispersion

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Mean Tariff	0.315**	0.333**	0.338**	0.376**	0.309**	0.129***	0.125***
	[0.152]	[0.156]	[0.162]	[0.151]	[0.158]	[0.036]	[0.036]
Logged Import	0.318*	0.417**	-0.021	-0.003	0.016	-0.038	0.101
	[0.168]	[0.194]	[0.230]	[0.232]	[0.246]	[0.383]	[0.520]
Logged GDPpc	-0.354**	-0.546***	-0.057	-0.272	0.044	-0.054	0.039
	[0.174]	[0.180]	[0.206]	[0.218]	[0.262]	[0.388]	[0.463]
Institutionalized	0.112**			0.029			
Autocracy	[0.056]			[0.073]			
Durability		0.113***		0.109***	0.077**	0.023	-0.048
		[0.038]		[0.042]	[0.033]	[0.051]	[0.053]
$Durability^2$		-0.002***		-0.002***	-0.002**	-0.001*	0.000
		[0.001]		[0.001]	[0.001]	[0.001]	[0.001]
Military Size			0.436**	0.468**	0.162	0.813*	0.218
			[0.194]	[0.217]	[0.214]	[0.430]	[0.475]
Single Party	1.077***	0.898*	1.149***	0.964**		0.949*	
	[0.403]	[0.468]	[0.413]	[0.460]		[0.505]	
One Party					3.210**		3.284**
					[1.402]		[1.389]
Multi-Party					0.591		1.189
					[1.276]		[1.426]
Constant	-3.462	-5.186	2.272	2.323	1.145	1.886	-0.383
	[3.703]	[4.443]	[4.748]	[4.827]	[5.385]	[6.789]	[9.954]
N	278	288	256	248	285	74	78
No. of Countries	42	43	42	42	48	37	40
R^2	0.291	0.301	0.302	0.325	0.267	0.603	0.465

Note: Panel-corrected standard errors are included in brackets in Model 1 to Model 5. Model 6 and Model 7 report OLS estimates with clustered standard errors. The dependent variable in Model 1 to Model 5 is the standard deviation of tariffs. The dependent variable in Model 6 and Model 7 is the index of tariff particularism constructed by Kono (2007). All independent variables are lagged for one year except in Model 6 and Model 7. The data on numbers of parties under dictatorships in Model 5 and Model 7 are taken from Cheibub, Gandhi, Vreeland (2009).

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

4.4 Discussion and Conclusion

This chapter investigates the impacts of party organization and authoritarianism on tariff dispersion under dictatorships. While the previous literature concludes that dictatorships ruled by a single party have lower tariffs rates, this chapter demonstrates that they also have more dispersed tariff schedules for two reasons. First, a larger winning coalition of a single-party dictatorship implies more access points for special interests groups to penetrate into the policymaking process. Second, political leaders under single-party dictatorships have to selectively respond to the demand for protectionism within their winning coalitions. In addition, this chapter finds that political leaders under dictatorships with higher levels of authoritarianism are more capable of balancing forces of protectionism and free trade as well as taxing international trade in a more efficient way. As a result, tariff schedules are more dispersed and complicated under dictatorships that are governed by a single party or more institutionalized and consolidated. This argument is confirmed by the data of 42 authoritarian countries during 2000 and 2009.

With these findings, this chapter makes two contributions to the literature of authoritarian politics as well as international political economy. First, it advances the understanding about the determinants of trade policies under dictatorships. While the current literature finds that authoritarianism under dictatorships result in higher tariffs, this chapter further demonstrates that the consolidation of authoritarianism also enables dictators to collect revenues more efficiently from international trade with more dispersed and complicated tariff schedules.

Second, as the current literature emphasizes that larger winning coalitions of

single-party dictatorships have higher trade openness with lower tariff rates, their political leaders are not necessarily more willing to wholeheartedly renounce protectionism. Instead, this chapter demonstrates that they may become adepter to implement more complicated trade policies that can better balance forces of protectionism and free trade of their winning coalitions. Accordingly, this chapter clarifies the varieties of protectionism under dictatorships. As the early literature attributes protectionism to influences of special interests (Grossman and Helpman 1994; Grossman and Helpman 2001), some studies have found that the forms of protectionism depend on other political variables. For example, Kono (2006) has convincingly demonstrated that democracies tend to use non-tariff trade barriers to protect their domestic industries, because voters are less capable of detecting qualitative non-tariff trade barriers as their preference is free trade. This chapter investigates how special interests politics affects the degree of tariff dispersion when mean tariffs are reduced under single-party dictatorships. The finding of this chapter suggests that politicians in autocracies may also rely on sophisticated forms of protectionism as their counterparts in democracies do.

Taking a broader view, this chapter contributes to an emerging research agenda on how political institutionalization affects authoritarian survival (Gandhi 2008; Gandhi and Przeworski 2007; Wright 2008). The tentative consensus of those studies is that some dictators establish binding political institutions, such as parties or legislatures, to consolidate their authoritarian incumbency. Based on those studies, this chapter demonstrates one unintended economic consequence of such political institutionalization: A more dispersed tariff schedule. Additionally, this chapter is relevant to what Keefer and coauthor find about clientelism in young democracies (Keefer and Vlaicu 2008; Keefer

2007). That is, political leaders in nascent democracies are less able to make credible commitment to citizens after democratization, so they will return to rely on previous patron-client network to sustain their incumbency. This chapter provides a parallel explanation about how political leaders under single-party dictatorships maintain their patron-client network via tariff schedules to stay in power.

Nevertheless, this chapter suffers from some limitations. First, the issue of missing data prevents it from including more authoritarian countries into the analysis. About 32 authoritarian regimes are completely excluded from the empirical analysis of this chapter due to data unavailability. Since dictatorships are less transparent than democracies in terms of economic statistics (Hollyer, Rosendorff, and Vreeland 2011), future research should elaborate on addressing this issue when analyzing trade politics of dictatorships.

Second, this chapter does not directly measure the numbers of access points under different types of dictatorships. While in this chapter I argue that single-party dictatorships have more access points due to larger winning coalitions, it does not mean that the role of access points is nonexistent or inconsequential in other types of dictatorships. Thus, future research may focus on how to exactly measure access points in authoritarian regimes.

Third, although I argue that tariff dispersion results from the interaction between special interests groups and dictators, the impact of tariff dispersion on authoritarian survival is not directly analyzed in this chapter. One possible extension of this argument is that more dispersed tariff schedules will prolong the political survival of authoritarian leaders, since they are more capable of responding to the demand of members in their winning coalitions. However, one should keep the issue of endogeneity in mind when pursuing this research idea.

CHAPTER 5
CONCLUSION

This dissertation investigates trade politics under dictatorships. Inspired the variation of trade openness under dictatorships, I argue that political leaders in authoritarian regimes can use trade policies to secure their incumbency, because engaging in international trade creates additional external revenues for politicians to benefit poor citizens without taxing the rich ones. Meanwhile, I argue that some authoritarian leaders can go beyond the level of tariffs to the complexity of tariffs when they intend to protect their domestic industries.

The theoretical foundations of this dissertation include the Heckscher–Ohlin model of international trade, models of democratic transitions, and the logic of political survival. For one thing, rising inequality instigates political instability and may facilitate regime transitions, so political leaders in authoritarian countries have an incentive to mitigate inequality by engaging their countries in the world market to benefit abundant unskilled poor laborers. Accordingly, trade liberalization neutralizes threats of democratic transition and prolongs political survival of dictators. For the other, although political leaders under single-party dictatorships are more open to trade with lower tariffs, they also establish more complicated tariff schedules to efficiently collect revenues when financing their winning coalitions.

Based on those theoretical arguments, the first main finding of this dissertation is that as inequality increases, dictatorships with abundant labor forces will expand their trade regimes. As tested in a series of empirical models in Chapter 2, this finding is not driven by

the rival thesis that trade openness results in inequality. In particular, increases in inequality do not promote further trade openness under democracies. Also, the results of instrumental variables model suggest that rising inequality facilitates trade openness under dictatorships. In other words, trade openness is a consequence, rather than a cause, of inequality in authoritarian regimes.

Second, I find that trade openness would further reduce inequality under dictatorships. In Chapter 3, I use signing preferential trade agreements (PTAs) as a proxy of trade openness, because it is a better measurement to capture both trade volume and trade policies at the same time. On the one hand, PTAs boost the trade flows of their signatories, so it can be a proxy of trade openness. On the other hand, PTAs are indicative of trade liberalization, since they eliminate the rents generated by protectionism. With this operationalization of trade openness, in Chapter 3 I demonstrate that signing PTAs would reduce inequality under dictatorships. At the same time, I find that a dictatorship is less likely to collapse once it can successfully sign PTAs with other countries. Both findings of Chapter 3 provide additional support for the theoretical argument and empirical evidence of Chapter 2: Trade liberalization can be an intentional policy choice of dictators to reduce inequality and sustain their authoritarian incumbency.

In additional to trade liberalization, this dissertation investigates protectionism and finds that political leaders under single-party dictatorships use a more sophisticated form of protectionism to sustain their winning coalitions. In particular, as the literature suggests that single-party dictatorships are more open to trade with lower tariffs, I find that their tariff schedules are more dispersed and complicated. Although political leaders subject to larger winning coalitions have to liberalize trade regimes to benefit more citizens, I

demonstrate in Chapter 4 that larger winning coalitions implies more access points for special interests groups to lobby for protection and result in more *ad hoc* tariffs rates. Meanwhile, I find that dictatorships with higher levels of authoritarianism, defined by their capacity of repression and level of autocracy, are more capable of setting complicated tariff schedules to collect revenues from imports in a more efficient way.

Due to those findings, the main contribution of this dissertation is to advance the understanding of trade politics under dictatorships. Although scholars have been developing theories to analyze how different democratic institutions would results in the varieties of trade policies, studies on trade politics under dictatorships are still underdeveloped. This dissertation explores politics of trade liberalization and protectionism in authoritarian regimes, arguing that dictators can use trade policies, including both trade liberalization and protectionism, to prolong their incumbency.

Taking a broader view, this dissertation sheds new light on the debates over the relationship between globalization and democratization. As the literature is inconclusive on the impacts of globalization on democratization (Eichengreen and Leblang 2008; Li and Reuveny 2009; Milner and Mukherjee 2009), the findings of this dissertation suggest that engaging in the world economy helps dictator consolidate their authoritarian rule, because gains from trade enrich the abundant labor forces in authoritarian regimes and ameliorate income distribution. As a result, the threat of regime breakdown is neutralized after inequality is reduced.

In addition, this dissertation demonstrates that politics of trade liberalization under dictatorships may be more complicated than conventional wisdom posits. When facing the

demand of free trade, authoritarian leaders may develop more sophisticated ways to keep exercising protectionism that can buttress their incumbency.

Based on these findings, there are some possible extensions for further research. First, the quality of data used in this dissertation is far from perfect, since many dictatorships are so isolated from the world market that their economic data, such as trade or inequality, are usually unavailable. Researchers may elaborate more on new ways to measure or operationalize trade as well as inequality. For example, Blaydes and Kayser (2011) use the consumption of calories as an alternative measure of inequality across countries. Similarly, Ahlquist and Wibbels (2012) operationalize a country's trade openness with its trade volume as the ratio of world trade. Thus, future research can seek for other alternative measurements to investigate the relations between trade openness, inequality, and democratic transitions.

Second, while this dissertation finds that tariff schedules are more dispersed and complicated under single-party dictatorships, it does not investigate the effects of tariff complexity on authoritarian survival. One possible extension of arguments raised in Chapter 4 is that tariff complexity, as well as other non-tariff trade barriers, will contribute to authoritarian survival, because dictators can collect more revenues to garner more support for their winning coalition via disguised protectionism. Nevertheless, one should keep the issue of endogeneity in mind when pursing this research agenda, because the finding of Chapter 4 suggests that dictatorships with higher levels of authoritarianism are more able to differentiate tariff rates.

Third, future research may adopt other trade models to investigate the relationship between trade openness and democratization. One of the main theoretical foundations of

this dissertation is the Heckscher-Ohlin model of international trade. There are two key assumptions of this model. For one thing, the factors of production, such as capital or labor, are immobile between countries trading with each other. For the other, the technology of production is identical between countries. Although the first assumption to a large extent can still hold for most dictatorships, the second assumption may not be satisfied in cases of dictatorships. It has been argued that the technological difference among developing countries will result in inequality among skilled and unskilled laborers in both developed and developing countries (Zhu and Trefler 2005), so how to apply this revised Ricadian international technology difference model of international trade to the literature of democratic transitions would be an intellectually rewarding task to pursue.

Fourth, recent studies have noticed about the impacts of financial openness on democratic transitions (Acemoglu and Robinson 2005; Boix and Stokes 2003; Freeman and Quinn 2012). The main finding of this research agenda is that dictatorships are more likely to democratize as they are more financially integrated into the world market, because the rich citizens have less incentive to resist democratization as they can move their assets abroad to avoid taxation. This conclusion is in tension with this dissertation that suggests trade openness will inhibit democratization. One possible solution to this inconsistency is to investigate how the logic of political survival affects dictators' choice between trade openness and financial integration. While trade openness would benefit owners of abundant factors in authoritarian states (i.e., labor), financial openness usually favor rich citizens. Thus, dictators' choice between two related policy tools may depend on the composition of their winning coalitions.

Last, a unresolved puzzle of this dissertation is the existence of those dictatorships that are highly isolated from the world economy, such as North Korea or Myanmar. According to the theoretical arguments of this dissertation, trade liberalization could be a feasible policy choice for dictators, but empirically it is not adopted by all dictatorships. Although I have already offered some explanations in this dissertation, such as factor scarcity or the lack of credibility to negotiate free trade with other countries, the issue on how those internationally isolated dictatorships sustain their authoritarian rule stills awaits future research.

APPENDIX

Table A.1 List of Dictatorships Analyzed in Chapter 2

Afghanistan	Honduras	Peru
Albania	Hungary	Philippines
Algeria	Indonesia	Poland
Armenia	Iran	Romania
Azerbaijan	Iraq	Russia
Bangladesh	Ivory Coast	Rwanda
Benin	Jordan	Saudi Arabia
Bolivia	Kenya	Senegal
Botswana	Korea South	Sierra Leone
Bulgaria	Kuwait	Singapore
Burkina Faso	Kyrgyzstan	Somalia
Burundi	Liberia	South Africa
Cameroon	Libya	Spain
Cen African Rep	Madagascar	Sri Lanka
Chile	Malawi	Sudan
China	Malaysia	Syria
Congo-Brz	Mauritania	Taiwan
Cuba	Mexico	Tanzania
Dominican Rep	Mongolia	Thailand
Ecuador	Morocco	Togo
Egypt	Mozambique	Tunisia
El Salvador	Namibia	Turkey
Eritrea	Nepal	UAE
Gabon	Nicaragua	Uganda
Gambia	Nigeria	Uruguay
Ghana	Oman	Zambia
Greece	Pakistan	Zimbabwe
Guatemala	Panama	
Haiti	Paraguay	

Table A.2 Summary Statistics of Variables Used in Chapter 2

Variable	N	Mean	Std. Dev.	Min.	Max.
Trade Openness (Trade/GDP)	1362	72.23	60.31	2.26	622.63
Trade Openness (Wacziarg and Welch)	1315	0.30	0.46	0	1
Economic Globalization	1087	39.29	18.02	8.68	95.15
Inequality (Industrial Pay)	1458	5.97	5.92	0.10	102.57
Inequality (Gini)	907	45.41	11.26	17.59	75.12
GDP per capita (Hundreds USD)	1362	59.07	94.88	5.07	978.13
Labor Endowment	1385	0.64	0.85	-2.10	2.47
Inequality × Labor Endowment	1385	4.17	9.18	-47.90	160.27
Oil per capita (Hundreds USD)	1409	7.77	40.51	0	631.84
Metal per capita (Hundreds USD)	1434	0.63	1.86	0	14.30
GATT/WTO	1458	0.60	0.49	0	1
Authoritarianism	1449	5.89	2.67	0	10
Single-Party Dictatorship	1458	0.53	0.50	0	1
Age40-59/Age15-69	1409	-1.39	0.13	-2	-1.01
Closed Years	1315	11.74	10.49	0	40
Spline1	1315	-6001.86	9936.05	-64000	0
Spline2	1315	-2192.88	2801.98	-13320.12	0
Spline3	1315	-2991.13	4608.91	-25080.46	0

Table A.3 List of Dictatorships Analyzed in Chapter 3

Algeria	Ghana	Pakistan
Angola	Guatemala	Panama
Argentina	Guinea	Paraguay
Armenia	Guinea Bissau	Peru
Azerbaijan	Haiti	Philippines
Bangladesh	Honduras	Russia
Belarus	Hungary	Rwanda
Benin	Indonesia	Saudi Arabia
Bolivia	Iran	Senegal
Brazil	Jordan	Sierra Leone
Burkina Faso	Kazakhstan	Singapore
Burundi	Kenya	South Africa
Cambodia	Kuwait	South Korea
Cameroon	Kyrgyz Rep.	SriLanka
Central African Rep.	Laos	Sudan
Chad	Lesotho	Syria
Chile	Madagascar	Tajikistan
China	Malawi	Tanzania
Congo	Malaysia	Thailand
Congo Dem. Rep.	Mali	Togo
Coted'Ivoire	Mauritania	Tunisia
Dominican Republic	Mexico	Turkmenistan
Ecuador	Morocco	Uganda
Egypt	Mozambique	United Arab Emirates
ElSalvador	Namibia	Uruguay
Eritrea	Nepal	Uzbekistan
Ethiopia	Nicaragua	Zambia
Gabon	Niger	Zimbabwe
Gambia	Nigeria	
Georgia	Oman	

Table A.4 Summary Statistics of Variables Used in Chapter 3

Variable	N	Mean	Std. Dev.	Min.	Max.
Authoritarian Breakdown	1777	0.042	0.200	0	1
Dummy of signed PTA in the past 1 year	1674	0.103	0.304	0	1
Dummy of signed PTA in the past 2 year	1586	0.192	0.394	0	1
Dummy of signed PTA in the past 3 year	1512	0.277	0.448	0	1
Dummy of signed PTA in the past 4 year	1448	0.356	0.479	0	1
Dummy of signed PTA in the past 5 year	1392	0.432	0.496	0	1
Dummy of signed PTA in the past 6 year	1343	0.503	0.500	0	1
Logged Military Size	1773	-5.682	1.011	-8.042	-2.778
Logged GDP	1459	7.649	0.910	6.084	10.623
GDP Growth	1777	3.708	6.387	-50.248	35.224
Logged Oil Income per capita	1756	2.093	2.878	0	11.054
Regional Democratization	1759	13.748	12.937	0	84.211
Political Instability	1763	0.328	0.631	0	4
Single Party	1777	0.444	0.497	0	1
Urban Population	1777	37.862	21.611	2.372	100
FDI	1705	1.475	3.136	-25.782	39.875
Trade	1701	61.107	32.248	6.320	220.407
Authoritarian Duration	1777	20.737	29.803	1	259
Spline1	1777	-2490.090	3951.058	-20135.84	0
Spline2	1777	-5782.495	9951.521	-52307.55	0
Spline3	1777	-8131.804	15831.040	-90396.910	0

Table A.5 Geddes' Coding of Authoritarian Regimes, 2000–2009

Country	Regime Type	Country	Regime Type
Algeria	Military	Malaysia	Party
Angola	Party	Mauritania	Personal
Armenia	Personal	Morocco	Monarch
Azerbaijan	Personal	Mozambique	Party
Botswana	Party	Namibia	Party
Burkina Faso	Personal	Nepal	Monarch
Cameroon	Personal	Oman	Monarch
Cen African Rep	Personal	Pakistan	Military
Chad	Personal	Russia	Personal
China	Party	Rwanda	Party
Congo/Zaire	Personal	Singapore	Party
Congo-Brz	Personal	Syria	Party
Egypt	Party	Tanzania	Party
Gabon	Party	Togo	Personal
Haiti	Personal	Tunisia	Party
Iran	Party	UAE	Monarch
Ivory Coast	Personal	Uganda	Personal
Jordan	Monarch	Venezuela	Personal
Kazakhstan	Personal	Vietnam	Party
Kenya	Party	Zambia	Party
Kuwait	Monarch	Zimbabwe	Party
Kyrgyzstan	Personal		

Table A.6 Summary Statistics of Variables Used in Chapter 4

Variable	N	Mean	Std. Dev.	Min.	Max.
Tariff Dispersion	274	4.703	2.457	0	10
Tariff Particularism	78	6.580	2.530	0	9.508
Mean Tariff	285	2.674	1.323	0	9.300
Logged Import	285	27.333	1.727	23.745	32.271
Logged GDPpc	285	7.303	1.302	4.745	10.771
Authoritarianism	272	3.526	2.589	0	9
Durability	285	16.295	16.497	0	58
Durability	285	536.723	833.813	0	3364
Military Size	285	3.811	1.690	0	7.941
Single Party	244	0.488	0.501	0	1
One Party	285	0.102	0.303	0	1
Multi-Party	285	0.926	0.262	0	1

BIBLIOGRAPHY

BIBLIOGRAPHY

Acemoglu, Daron, Simon Johnson, James A. Robinson, and Pierre Yared. 2008. "Income and Democracy." *American Economic Review* 98(3): 808–842.

Acemoglu, Daron, and James A. Robinson. 2001. "A Theory of Political Transitions." *American Economic Review* 91(4): 938–963.

———. 2005. *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press.

Acemoglu, Daron, Davide Ticchi, and Andrea Vindigni. 2010. "A Theory of Military Dictatorships." *American Economic Journal: Macroeconomics* 2(1): 1–42.

Ades, Alberto, and Rafael di Tella. 1999. "Rents, Competition, and Corruption." *American Economic Review* 89(4): 982–993.

Adserà, Alícia, and Carles Boix. 2002. "Trade, Democracy, and the Size of the Public Sector: The Political Underpinnings of Openness." *International Organization* 56(2): 229–262.

Ahlquist, John S, and Erik Wibbels. 2012. "Riding the Wave: World Trade and Factor-Based Models of Democratization." *American Journal of Political Science* 56(2): 447–464.

Aidt, Toke S., and Martin Gassebner. 2010. "Do Autocratic States Trade Less?" *World Bank Economic Review* 24(1): 38–76.

Albertus, Michael, and Victor Menaldo. 2012. "Coercive Capacity and the Prospects for Democratization." *Comparative Politics* 44(2): 151–169.

Alemán, José, and David D. Yang. 2011. "A Duration Analysis of Democratic Transitions and Authoritarian Backslides." *Comparative Political Studies* 44(9): 1123 –1151.

Anderson, Edward. 2005. "Openness and Inequality in Developing Countries: A Review of Theory and Recent Evidence." *World Development* 33(7): 1045–1063.

Ansell, Ben, and David Samuels. 2010. "Inequality and Democratization: A Contractarian Approach." *Comparative Political Studies* 43(12): 1543 –1574.

Athukorala, Prema-chandra. 2005. "Trade Policy in Malaysia: Liberalization Process, Structure of Protection, and Reform Agenda." *ASEAN Economic Bulletin* 22(1): 19–34.

Athukorala, Prema-chandra, and Loke Wai-Heng. 2007. "Distortions to Agricultural Incentives in Malaysia." *World Bank Agricultural Distortions Working Paper* No. 48476.

Babones, Salvatore J., and Dorian C. Vonada. 2009. "Trade Globalization and National Income Inequality - Are They Related?" *Journal of Sociology* 45(1): 5–30.

Baccini, Leonardo. 2012. "Democratization and Trade Policy: An Empirical Analysis of Developing Countries." *European Journal of International Relations* 18(3): 455–479.

Baccini, Leonardo, and Andreas Dür. 2012. "The New Regionalism and Policy Interdependence." *British Journal of Political Science* 42(1): 57–79.

Baier, Scott L., and Jeffrey H. Bergstrand. 2007. "Do Free Trade Agreements Actually Increase Members' International Trade?" *Journal of International Economics* 71(1): 72–95.

Banerji, Arup, and Hafez Ghanem. 1997. "Does the Type of Political Regime Matter for Trade and Labor Market Policies?" *World Bank Economic Review* 11(1): 171–194.

Barbieri, Katherine, and Rafael Reuveny. 2005. "Economic Globalization and Civil War." *Journal of Politics* 67(4): 1228–1247.

Basu, Parantap, and Alessandra Guariglia. 2007. "Foreign Direct Investment, Inequality, and Growth." *Journal of Macroeconomics* 29(4): 824–839.

Beck, Nathaniel, and Jonathan N. Katz. 1995. "What to do (and not to do) with Time-Series Cross-Section Data." *American Political Science Review* 89(3): 634–647.

Beck, Nathaniel, Jonathan N. Katz, and Richard Tucker. 1998. "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science* 42(4): 1260–1288.

Berry, William D, Jacqueline H. R DeMeritt, and Justin Esarey. 2010. "Testing for Interaction in Binary Logit and Probit Models: Is a Product Term Essential?" *American Journal of Political Science* 54(1): 248–266.

Beyer, Harald, Patricio Rojas, and Rodrigo Vergara. 1999. "Trade Liberalization and Wage Inequality." *Journal of Development Economics* 59(1): 103–123.

Blaydes, Lisa, and Mark Andreas Kayser. 2011. "Counting Calories: Democracy and Distribution in the Developing World1." *International Studies Quarterly* 55(4): 887–908.

Boef, Suzanna De, and Luke Keele. 2008. "Taking Time Seriously." *American Journal of*

Political Science 52(1): 184–200.

Boix, Carles. 2003. *Democracy and Redistribution*. New York: Cambridge University Press.

———. 2011. "Democracy, Development, and the International System." *American Political Science Review* 105(4): 809–828.

———. 2008. "Economic Roots of Civil Wars and Revolutions in the Contemporary World." *World Politics* 60(3): 390–437.

Boix, Carles, and Susan C. Stokes. 2003. "Endogenous Democratization." *World Politics* 55(4): 517–549.

Boix, Carles, and Milan Svolik. 2010. "The Foundations of Limited Authoritarian Government: Institutions and Power-Sharing in Dictatorships." Working Paper.

Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14(1): 63–82.

Brownlee, Jason. 2007. *Authoritarianism in an Age of Democratization*. New York: Cambridge University Press.

———. 2009. "Portents of Pluralism: How Hybrid Regimes Affect Democratic Transitions." *American Journal of Political Science* 53(3): 515–532.

Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2005. *The Logic of Political Survival*. Cambridge: MIT Press.

Büthe, Tim, and Helen V Milner. 2008. "The Politics of Foreign Direct Investment into Developing Countries: Increasing FDI through International Trade Agreements?" *American Journal of Political Science* 52(4): 741–762.

Chang, Eric, and Miriam A. Golden. 2010. "Sources of Corruption in Authoritarian Regimes." *Social Science Quarterly* 91(1): 1–20.

Cheibub, José Antonio, Jennifer Gandhi, and James Raymond Vreeland. 2009. "Democracy and Dictatorship Revisited." *Public Choice* 143(1-2): 67–101.

Chen, Shaohua, and Martin Ravallion. 2004. "Welfare Impacts of China's Accession to the World Trade Organization." *World Bank Economic Review* 18(1): 29–57.

Clague, Christopher, Philip Keefer, Stephen Knack, and Mancur Olson. 1996. "Property and Contract Rights in Autocracies and Democracies." *Journal of Economic Growth* 1(2): 243–276.

Cooper, Richard N. 1964. "Tariff Dispersion and Trade Negotiations." *Journal of Political Economy* 72(6): 597–603.

Daly, Michael, and Hiroaki Kuwahara. 1998. "The Impact of the Uruguay Round on Tariff and Non-Tariff Barriers to Trade in the 'Quad'." *World Economy* 21(2): 207–234.

Davis, Christina L. 2003. *Food Fights Over Free Trade: How International Institutions Promote Agricultural Trade Liberalization*. Princeton: Princeton University Press.

Deardorff, Alan V. 2006. *Terms of Trade: Glossary of International Economics*. Hackensack: World Scientific.

Deininger, Klaus, and Lyn Squire. 1996. "A New Data Set Measuring Income Inequality." *World Bank Economic Review* 10(3): 565 –591.

Dionne, Kim Yi. 2011. "The Role of Executive Time Horizons in State Response to AIDS in Africa." *Comparative Political Studies* 44(1): 55 –77.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper.

Dreher, Axel. 2006. "Does Globalization Affect Growth? Evidence from a New Index of Globalization." *Applied Economics* 38(10): 1091–1110.

Ehrlich, Sean D. 2011. *Access Points: An Institutional Theory of Policy Bias and Policy Complexity*. New York: Oxford University Press.

Ehrlich, Sean D. 2007. "Access to Protection: Domestic Institutions and Trade Policy in Democracies." *International Organization* 61(3): 571–605.

Eichengreen, Barry, and David Leblang. 2008. "Democracy and Globalization." *Economics & Politics* 20(3): 289–334.

Epstein, David L. et al. 2006. "Democratic Transitions." *American Journal of Political Science* 50(3): 551–569.

Escribà-Folch, Abel. 2008. "Do Authoritarian Institutions Mobilize Economic Cooperation?" *Constitutional Political Economy* 20(1): 71–93.

Evans, Carolyn L. 2009. "A Protectionist Bias in Majoritarian Politics: An Empirical Investigation." *Economics & Politics* 21(2): 278–307.

Freeman, John R., and Dennis P. Quinn. 2012. "The Economic Origins of Democracy Reconsidered." *American Political Science Review* 106(1): 58–80.

Frye, Timothy, and Edward D Mansfield. 2003. "Fragmenting Protection: The Political Economy of Trade Policy in the Post-Communist World." *British Journal of*

Political Science 33(4): 635–657.

Frye, Timothy, and Edward D. Mansfield. 2004. "Timing is Everything." *Comparative Political Studies* 37(4): 371–398.

Galbraith, James K. 2012. *Inequality and Instability: A Study of the World Economy Just Before the Great Crisis*. New York: Oxford University Press.

Galbraith, James K., and Hyunsub Kum. 2003. "Inequality and Economic Growth: A Global View Based on Measures of Pay." *CESifo Economic Studies* 49(4): 527–556.

Gallagher, Mary, and Jonathan K. Hanson. 2007. "``Power Tool or Dull Blade? Resilient Autocracy and the Selectorate Theory.'' Presented at the conference Why Communism Didn't Collapse: Understanding Regime Resilience in China, Vietnam, Laos, North Korea, and Cuba, Dartmouth College, Hannover, NY."

———. 2009. "Coalitions, Carrots, and Sticks: Economic Inequality and Authoritarian States." *PS: Political Science & Politics* 42(4): 667–672.

Gandhi, Jennifer. 2008a. "Dictatorial Institutions and their Impact on Economic Growth." *European Journal of Sociology* 49(1): 3–30.

———. 2008b. *Political Institutions Under Dictatorship*. New York: Cambridge University Press.

Gandhi, Jennifer, and Adam Przeworski. 2007. "Authoritarian Institutions and the Survival of Autocrats." *Comparative Political Studies* 40(11): 1279–1301.

———. 2006. "Cooperation, Cooptation, and Rebellion under Dictatorships." *Economics and Politics* 18(1): 1–26.

Gatti, Roberta. 1999. "Corruption and Trade Tariffs, or a Case for Uniform Tariffs." *World Bank Policy Research Working Paper* No. 2216.

Geddes, Barbara. 1999a. "Authoritarian Breakdown: Empirical Test of a Game Theoretic Argument." Paper Presented at the Annual Meeting of the American Political Science Association, Atlanta, September 2–5.

———. 1999b. "What Do We Know About Democratization After Twenty Years?" *Annual Review of Political Science* 2: 115–144.

Geddes, Barbara, Joseph Wright, and Erica Frantz. 2012. "Authoritarian Regimes Data — Authoritarian Regimes." http://dictators.la.psu.edu/ (Accessed September 4, 2012).

Gehlbach, Scott. 2008. *Representation Through Taxation: Revenue, Politics, and Development in Postcommunist States*. New York: Cambridge University Press.

Gerring, John, Strom C. Thacker, and Rodrigo Alfaro. 2012. "Democracy and Human Development." *Journal of Politics* 74(1): 1–17.

Ghosh, Atish R. 2002. *Exchange Rate Regimes: Choices and Consequences*. Cambridge: MIT Press.

Gleditsch, Nils Petter et al. 2002. "Armed Conflict 1946-2001: A New Dataset." *Journal of Peace Research* 39(5): 615–637.

Göbel, Christian. 2011. "Authoritarian Consolidation." *European Political Science* 10(2): 176–190.

Goldberg, Pinelopi Koujianou, and Giovanni Maggi. 1999. "Protection for Sale: An Empirical Investigation." *American Economic Review* 89(5): 1135–1155.

Goldberg, Pinelopi Koujianou, and Nina Pavcnik. 2007. "Distributional Effects of Globalization in Developing Countries." *Journal of Economic Literature* 45(1): 39–82.

Goldstein, Judith L., Douglas Rivers, and Michael Tomz. 2007. "Institutions in International Relations: Understanding the Effects of the GATT and the WTO on World Trade." *International Organization* 61(1): 37–67.

Grossman, Gene M., and Elhanan Helpman. 2005. "A Protectionist Bias in Majoritarian Politics." *Quarterly Journal of Economics* 120(4): 1239–1282.

———. 1996. "Electoral Competition and Special Interest Politics." *Review of Economic Studies* 63(2): 265–286.

———. 1994. "Protection for Sale." *American Economic Review* 84(4): 833–850.

———. 2001. *Special Interest Politics*. Cambridge, Mass: MIT.

Gwartney, James, Robert Lawson, and Joshua Hall. 2011. *Economic Freedom of the World—2011 Annual Report*. Vancouver: Fraser Institute.

Haber, Stephen H, and Victor Menaldo. 2011. "Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse." *American Political Science Review* 105(1): 1–26.

Hall, Richard L., and Alan V. Deardorff. 2006. "Lobbying as Legislative Subsidy." *American Political Science Review* 100(1): 69–84.

Hankla, Charles, and Daniel Kuthy. 2012. "Economic Liberalism in Illiberal Regimes: Authoritarian Variation and the Political Economy of Trade." *International Studies Quarterly* Forthcoming.

Hausman, Jerry A., and William E. Taylor. 1981. "Panel Data and Unobservable Individual Effects." *Econometrica* 49(6): 1377–1398.

Heckscher, Eli F, and Bertil Gotthard Ohlin. 1991. *Heckscher-Ohlin Trade Theory*. Cambridge: MIT Press.

Heston, Alan, Robert Summers, and Bettina Aten. 2009. "Penn World Table Version 6.3." Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania'."

Higgins, Matthew, and Jeffrey G. Williamson. 1999. "Explaining Inequality the World Round: Cohort Size, Kuznets Curves, and Openness." *National Bureau of Economic Research Working Paper* No. 7224.

Hiscox, Michael J. 2002. *International Trade and Political Conflict: Commerce, Coalitions, and Mobility*. Princeton: Princeton University Press.

Hollyer, James R., and B. Peter Rosendorff. 2012. "Leadership Survival, Regime Type, Policy Uncertainty, and PTA Accession." *International Studies Quarterly* Forthcoming.

Hollyer, James R., B. Peter Rosendorff, and James Raymond Vreeland. 2011. "Democracy and Transparency." *Journal of Politics* 73(4): 1191–1205.

Houle, Christian. 2009. "Inequality and Democracy: Why Inequality Harms Consolidation but Does Not Affect Democratization." *World Politics* 61(4): 589–622.

Hur, Jung, and Cheolbeom Park. 2012. "Do Free Trade Agreements Increase Economic Growth of the Member Countries?" *World Development* 40(7): 1283–1294.

International Monetary Fund. 2008. *World Economic Outlook 2007: Globalization and Inequality*. Washington, D.C.: International Monetary Fund.

Irwin, Douglas A. 1996. *Against the Tide: An Intellectual History of Free Trade*. Princeton: Princeton University Press.

———. 2009. *Free Trade Under Fire*. 3rd ed. Princeton: Princeton University Press.

Jomo, Kwame Sundaram. 1994. "The Proton Saga: Malaysian Car, Mitsubishi Gain." In *Japan and Malaysian Development: In the Shadow of the Rising Sun*, ed. Kwame Sundaram Jomo. London: Routledge, pp. 263–290.

Katzenstein, Peter J. 1985. *Small States in World Markets: Industrial Policy in Europe*. Ithaca: Cornell University Press.

Keefer, Philip. 2007. "Clientelism, Credibility, and the Policy Choices of Young

Democracies." *American Journal of Political Science* 51(4): 804–821.

Keefer, Philip, and Razvan Vlaicu. 2008. "Democracy, Credibility, and Clientelism." *Journal of Law, Economics, and Organization* 24(2): 371–406.

Kim, Myeong Hwan. 2011. "Do We Really Know That the WTO Increases Trade? Revisited." *Global Economy Journal* 11(2): 1–21.

Kim, Wonik, and Jennifer Gandhi. 2010. "Coopting Workers under Dictatorship." *Journal of Politics* 72(3): 646–658.

King, Gary, Michael Tomz, and Jason Wittenberg. 2000. "Making the Most of Statistical Analyses: Improving Interpretation and Presentation." *American Journal of Political Science* 44(2): 347–361.

Kono, Daniel Y. 2007. "'One Policy for Each or One for All? A New Measure of Trade-Policy Particularism.' Paper presented at the 2007 Annual Meeting of the American Political Science Association, Chicago."

———. 2006. "Optimal Obfuscation: Democracy and Trade Policy Transparency." *American Political Science Review* 100(3): 369–384.

Krueger, Anne O. 1974. "The Political Economy of the Rent-Seeking Society." *American Economic Review* 64(3): 291–303.

Krugman, Paul R., and Mauricen Obstfeld. 2006. *International Economics: Theory and Policy*. 6th ed. Massachusetts: Addison-Wesley.

Kurer, Oskar. 1993. "Clientelism, corruption, and the allocation of resources." *Public Choice* 77(2): 259–273.

Leeson, Peter T, and Andrea M Dean. 2009. "The Democratic Domino Theory: An Empirical Investigation." *American Journal of Political Science* 53(3): 533–551.

Leigh, Andrew. 2006. "Does Equality Lead to Fraternity?" *Economics Letters* 93(1): 121–125.

Levi, Margaret. 1988. *Of Rule and Revenue*. Berkeley: University of California Press.

Levitsky, Steven, and Lucan A Way. 2010. *Competitive Authoritarianism: Hybrid Regimes after the Cold War*. New York: Cambridge University Press.

Levitsky, Steven, and Lucan A. Way. 2005. "International Linkage and Democratization." *Journal of Democracy* 16(3): 20–34.

———. 2002. "The Rise of Competitive Authoritarianism." *Journal of Democracy* 13(2): 51–65.

Li, Quan, and Rafael Reuveny. 2009. *Democracy and Economic Openness in an Interconnected System: Complex Transformations*. New York: Cambridge University Press.

———. 2003. "Economic Globalization and Democracy: An Empirical Analysis." *British Journal of Political Science* 33(1): 29–54.

Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *American Political Science Review* 53(1): 69–105.

López-Córdova, J. Ernesto, and Christopher M. Meissner. 2008. "The Impact of International Trade on Democracy: A Long-Run Perspective." *World Politics* 60(4): 539–575.

Magaloni, Beatriz. 2006. *Voting for Autocracy: Hegemonic Party Survival and Its Demise in Mexico*. New York: Cambridge University Press.

Maggi, Giovanni, and Andrés Rodríguez-Clare. 2007. "A Political-Economy Theory of Trade Agreements." *American Economic Review* 97(4): 1374–1406.

Malesky, Edmund, Regina Abrami, and Yu Zheng. 2011. "Institutions and Inequality in Single-Party Regimes: A Comparative Analysis of Vietnam and China." *Comparative Politics* 43(4): 401–420.

Malik, Adeel, and Bassem Awadallah. 2011. "The Economics of the Arab Spring." *CSAE Working Paper Series* No. 2011–23.

Mansfield, Edward D., Helen V. Milner, and B. Peter Rosendorff. 2000. "Free to Trade: Democracies, Autocracies, and International Trade." *American Political Science Review* 94(2): 305–321.

———. 2002. "Why Democracies Cooperate More: Electoral Control and International Trade Agreements." *International Organization* 56(3): 477–513.

Marshall, Monty, and Keith Jaggers. 2002. *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2002*. College Park: Center for International Development and Conflict Management, University of Maryland.

Mayer, Wolfgang. 1984. "Endogenous Tariff Formation." *American Economic Review* 74(5): 970–985.

Meltzer, Allan H., and Scott F. Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89(5): 914–927.

Mikic, Mia, and John Gilbert. 2009. *Trade Statistics in Policymaking—A Handbook of Commonly Used Trade Indices And Indicators*. New York: United Nations.

Milner, Helen V. 1997. *Interests, Institutions, and Information: Domestic Politics and International Relations*. Princeton: Princeton University Press.

Milner, Helen V., and Keiko Kubota. 2005. "Why the Move to Free Trade? Democracy and Trade Policy in the Developing Countries." *International Organization* 59(1): 107–143.

Milner, Helen V., and Bumba Mukherjee. 2009. "Democratization and Economic Globalization." *Annual Review of Political Science* 12(1): 163–181.

Moore, Barrington. 1966. *Social Origins of Dictatorship and Democracy; Lord and Peasant in the Making of the Modern World*. Boston: Beacon Press.

Morrison, Kevin M. 2009. "Oil, Nontax Revenue, and the Redistributional Foundations of Regime Stability." *International Organization* 63(1): 107–138.

Myerson, Roger. 2008. "The Autocrat's Credibility Problem and Foundations of the Constitutional State." *American Political Science Review* 102(1): 125–139.

Nathan, Andrew J. 2003. "Authoritarian Resilience." *Journal of Democracy* 14(1): 6–17.

Nepal, Mani, Alok K Bohara, and Kishore Gawande. 2011. "More Inequality, More Killings: The Maoist Insurgency in Nepal." *American Journal of Political Science* 55(4): 886–906.

Nielson, Daniel L. 2003. "Supplying Trade Reform: Political Institutions and Liberalization in Middle-Income Presidential Democracies." *American Journal of Political Science* 47(3): 470–491.

North, Douglass C., and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *The Journal of Economic History* 49(4): 803–832.

O'Donnell, Guillermo. 1988. *Bureaucratic Authoritarianism: Argentina 1966-1973 in Comparative Perspective*. Berkeley: University of California Press.

O'Reilly, Robert F. 2005. "Veto Points, Veto Players, and International Trade Policy." *Comparative Political Studies* 38(6): 652 –675.

OECD. 2000. *Agricultural Policies in Emerging and Transition Economies 2000*. Paris: OECD Publishing.

Oliva, Maria-Angels. 2000. "Estimation of Trade Protection in Middle East and North African Countries." *IMF Working Paper* No. 00/27.

Olson, Mancur. 1993. "Dictatorship, Democracy, and Development." *American Political Science Review* 87(3): 567–576.

———. 2000. *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships*. New York: Basic Books.

———. 1971. *The Logic of Collective Action; Public Goods and the Theory of Groups*. Cambridge, Mass: Harvard University Press.

Ornelas, Emanuel. 2005. "Rent Destruction and the Political Viability of Free Trade Agreements." *Quarterly Journal of Economics* 120(4): 1475–1506.

Panagariya, Arvind, and Dani Rodrik. 1993. "Political-Economy Arguments for a Uniform Tariff." *International Economic Review* 34(3): 685–703.

Park, Jong Hee, and Nathan Jensen. 2007. "Electoral Competition and Agricultural Support in OECD Countries." *American Journal of Political Science* 51(2): 314–329.

Pepinsky, Thomas B. 2009. *Economic Crises and the Breakdown of Authoritarian Regimes: Indonesia and Malaysia in Comparative Perspective*. New York: Cambridge University Press.

Pepinsky, Thomas B. 2008. "Capital Mobility and Coalitional Politics: Authoritarian Regimes and Economic Adjustment in Southeast Asia." *World Politics* 60(3): 438–474.

Pevehouse, Jon C. 2005. *Democracy from Above: Regional Organizations and Democratization*. New York: Cambridge University Press.

Pevehouse, Jon C. 2002. "Democracy from the Outside-In? International Organizations and Democratization." *International Organization* 56(3): 515–549.

Plümper, Thomas, Vera E Troeger, and Philip Manow. 2005. "Panel Data Analysis in Comparative Politics: Linking Method to Theory." *European Journal of Political Research* 44(2): 327–354.

Pritchett, Lant. 1996. "Measuring Outward Orientation in LDCs: Can It Be Done?" *Journal of Development Economics* 49(2): 307–335.

Przeworski, Adam, Michael E. Alvarez, Jose Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. New York: Cambridge University Press.

Reuveny, Rafael, and Quan Li. 2003. "Economic Openness, Democracy, and Income Inequality: An Empirical Analysis." *Comparative Political Studies* 36(5): 575–601.

Rickard, Stephanie J. 2012. "A Non-Tariff Protectionist Bias in Majoritarian Politics: Government Subsidies and Electoral Institutions." *International Studies Quarterly*. Forthcoming.

Rodrik, Dani. 1997. *Has Globalization Gone Too Far?* Washington, D.C.: Institute for International Economics.

———. 1998. "Why Do More Open Economies Have Bigger Governments?" *Journal of Political Economy* 106(5): 997–1032.

Rogowski, Ronald. 1989. *Commerce and Coalitions: How Trade Affects Domestic Political Alignments*. Princeton: Princeton University Press.

———. 1987. "Trade and the Variety of Democratic Institutions." *International Organization* 41(2): 203–223.

Rose, Andrew K. 2004. "Do WTO Members Have More Liberal Trade Policy?" *Journal of International Economics* 63(2): 209–235.

Ross, Michael L. 2007. "How Mineral-Rich States Can Reduce Inequality?" In *Escaping The Resource Curse*, eds. Macartan Humphreys, Jeffrey Sachs, and Joseph E. Stiglitz. New York: Columbia University Press, pp. 173–193.

Ross, Michael Lewin. 1999. "The Political Economy of the Resource Curse." *World Politics* 51(2): 297–322.

Rudra, Nita. 2005. "Globalization and the Strengthening of Democracy in the Developing World." *American Journal of Political Science* 49(4): 704–730.

Sachs, Jeffrey D., and Andrew Warner. 1995. "Economic Reform and the Process of Global Integration." *Brookings Papers on Economic Activity* 1995(1): 1–118.

Schedler, Andreas, ed. 2006. *Electoral Authoritarianism: The Dynamics of Unfree Competition*. Boulder, Colo: L. Rienner Publishers, Inc.

Schiff, Maurice, and L. Alan Winters. 1998. "Regional Integration as Diplomacy." *World Bank Economic Review* 12(2): 271–295.

Schofield, Norman, and Micah Levinson. 2008. "Modeling Authoritarian Regimes." *Politics, Philosophy & Economics* 7(3): 243 –283.

Simon Kuznets. 1955. "Economic Growth and Income Inequality." *American Economic Review* 45(1): 1–28.

Singer, J. David. 1988. "Reconstructing the Correlates of War Dataset on Material Capabilities of States, 1816–1985." *International Interactions* 14(2): 115–132.

Smith, Alastair. 2008. "The Perils of Unearned Income." *Journal of Politics* 70(3): 780–793.

Smith, Benjamin. 2005. "Life of the Party: The Origins of Regime Breakdown and

Persistence under Single-Party Rule." *World Politics* 57(3): 421.

———. 2004. "Oil Wealth and Regime Survival in the Developing World, 1960-1999." *American Journal of Political Science* 48(2): 232–246.

Solt, Frederick. 2009. "Standardizing the World Income Inequality Database." *Social Science Quarterly* 90(2): 231–242.

Stasavage, David. 2005. "Democracy and Education Spending in Africa." *American Journal of Political Science* 49(2): 343–358.

Stata Press. 2009. *Longitudinal-Data/Panel-Data Reference Manual: Release 11*. College Station: StataCorp LP.

Steinberg, David A, and Victor C Shih. 2012. "Interest Group Influence in Authoritarian States: The Political Determinants of Chinese Exchange Rate Policy." *Comparative Political Studies* Forthcoming.

Stiglitz, Joseph E. 2003. *Globalization and Its Discontents*. New York: W.W. Norton.

Stolper, Wolfgang F., and Paul A. Samuelson. 1941. "Protection and Real Wages." *Review of Economic Studies* 9(1): 58–73.

Svolik, Milan. 2009. "Power Sharing and Leadership Dynamics in Authoritarian Regimes." *American Journal of Political Science* 53(2): 477–494.

———. 2012. *The Politics of Authoritarian Rule*. Cambridge: Cambridge University Press.

Teorell, Jan. 2010. *Determinants of Democratization: Explaining Regime Change in the World, 1972-2006*. New York: Cambridge University Press.

The Economist. 2010. "Democracy in Retreat." *Global Forecasting Service*. http://gfs.eiu.com/Article.aspx?articleType=wif&articleId=407 (Accessed January 8, 2011).

Tullock, Gordon. 1987. *Autocracy*. Dordrecht: Kluwer Academic Publishers.

Ulfelder, Jay. 2011. "Country Memberships in Selected Intergovernmental Organizations and Accession to Selected Regional and Global Treaty Regimes: Global, Country-Year Format, 1955-2010." Inter-university Consortium for Political and Social Research (ICPSR). http://dx.doi.org/10.3886/ICPSR30541.v1 (Accessed June 3, 2011).

Unger, Jonathan. 2006. "China's Conservative Middle Class." *Far Eastern Economic Review* 169(3): 27–41.

Verdier, Daniel. 1994. *Democracy and International Trade: Britain, France, and the United States, 1860-1990*. Princeton, N.J: Princeton University Press.

Wacziarg, Romain, and Karen Horn Welch. 2003. "Trade Liberalization and Growth: New Evidence." *National Bureau of Economic Research Working Paper Series* No. 10152.

Wintrobe, Ronald. 1998. *The Political Economy of Dictatorship*. Cambridge, UK: Cambridge University Press.

World Bank. 2011. *World Development Indicators 2011*. Washington, D.C.: World Bank.

Wright, Joseph. 2010. "Aid Effectiveness and the Politics of Personalism." *Comparative Political Studies* 43(6): 735 –762.

———. 2008a. "Do Authoritarian Institutions Constrain? How Legislatures Affect Economic Growth and Investment." *American Journal of Political Science* 52(2): 322–343.

———. 2009. "How Foreign Aid Can Foster Democratization in Authoritarian Regimes." *American Journal of Political Science* 53(3): 552–571.

———. 2008b. "To Invest or Insure? How Authoritarian Time Horizons Impact Foreign Aid Effectiveness." *Comparative Political Studies* 41(7): 971–1000.

Wright, Teresa. 2010. *Accepting Authoritarianism: State-Society Relations in China's Reform Era*. Stanford, Calif: Stanford University Press.

WTO. 2010. *International Trade Statistics 2010*. Geneva: World Trade Organization.

———. 2002. *Trade Policy Review: Malaysia 2001*. Geneva: World Trade Organization.

———. 2011. *World Trade Report 2011*. Geneva: World Trade Organization.

You, Jong-Sung, and Sanjeev Khagram. 2005. "A Comparative Study of Inequality and Corruption." *American Sociological Review* 70(1): 136–157.

Zhu, Susan Chun, and Daniel Trefler. 2005. "Trade and Inequality in Developing Countries: A General Equilibrium Analysis." *Journal of International Economics* 65(1): 21–48.