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The Role of Risk in Determining Liberalizing Trade

Abstract

This paper seeks to extend the research done by Bates to the years 1985-'95 and '96-2001. Bates found that increased terms-of-trade instability leads to decreased openness. He also found that terms-of-trade instability led to a change in trade regimeⁱⁱ. This paper searches to see if these results have continued through 1995 in order to secure more legitimacy as a leading theory among the risk literature of today. Over that time period, the Soviet Union and the Apartheid regime broke down. These countries have experienced major political and economic reforms due to these events, which should make these countries extremely vulnerable to risk. LDCs were forced in the early 90s to open their borders without question in order to receive aid from intercontinental organizations. It may no longer be the case that risk determines openness with these various global shocks during the late 80s and early 90s, so this paper analyzes whether Bates's empirical research on terms-of-trade instability continues through these risky times.

The Role of Risk in Determining Liberalizing Trade

Sean Moran

I. INTRODUCTION

Developing countries have seen themselves pulled by two contrasting views of development by leading experts. Proponents of the intervening, strong governments claim that government intervention enhances openness among the small economies of Western Europe to international markets. The other group emphasizes the *laissez-faire* approach to government intervention citing experiences among the less developed countries (LDCs) of the Global South. Political scientists generally hold the former position while most economists believe the latter. These competing theories of development were not formally addressed against each other until Batesⁱ explicitly set these two views on opposite sides and analyzed their beliefs in contrast. From these two opposing views arises the role of risk in structuring institutional relationships with trade liberalization.

This paper seeks to extend the research done by Bates to the years 1985-'95 and '96-2001. Bates found that increased terms-of-trade instability leads to decreased openness. He also found that terms-of-trade instability led to a change in trade regimeⁱⁱ. This paper searches to see if these results have continued through 1995 in order to secure more legitimacy as a leading theory among the risk literature of today. Over that time period, the Soviet Union and the Apartheid regime broke down. These countries have experienced major political and economic reforms due to these events, which should make these countries extremely vulnerable to risk. LDCs were

forced in the early 90s to open their borders without question in order to receive aid from intercontinental organizations. It may no longer be the case that risk determines openness with these various global shocks during the late 80s and early 90s, so this paper analyzes whether Bates's empirical research on terms-of-trade instability continues through these risky times.

II. FREE TRADE, INTERVENTION AND RISK

After an era of belief in government interven-

tion to cure market failureⁱⁱⁱ, development economists had become proponents of free trade in solving economic prob-

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lems in LDCs. The famed “Washington Consensus” advocated an end to government intervention in ten basic guidelines (Williamson, 1990). LDCs were told to end fiscal deficits, eliminate subsidies, implement a broad, moderate marginal tax rate, adopt competitive exchange rates, eliminate tariffs, privatize, deregulate, and enforce property rights. This consensus became increasingly popular when the World Bank and IMF introduced these policies as necessities for receiving loans. These policies became used as a benchmark, and almost all LDCs bought into this theory of development in order to receive aid. While these policies were hailed as a consensus, they were hardly anything of the sort.

Some economists were wary of how Eastern European countries would switch from a closed economy to a market economy smoothly. Placed in between LDC and OECD countries by most econo-

mists, these countries represent a fundamentally different way of thinking about development (Killick, 1991). Unlike the Washington Consensus, Killick advocates a slow transition is needed with steady centrally planned economic policy by the government. He points to both economic and social indicators as needing the consensus of the population to withstand a long, steady transition. Policy-makers need to learn the operations in state enterprises necessary for privatizing and developing the private sector.

Some economists still do not see any logic in heavy-handed intervention. Bhagwati argues that protection of “infant industries” is a second-best attempt at fixing market failures. He claims that protectionist policy should only be considered when market distortions are caused by foreign rather than domestic issues (1994). Furthermore, market imperfections are minimal, and protectionist policy arises because of a demand created from the incorrect perspective that

protectionism will aid an economy. This belief draws from the theory that intervention will produce worse outcomes than allowing imperfect markets to

fix themselves. Bhagwati also believes that introducing government intervention will produce inefficiencies and corruption (Bhagwati, 1994). This sort of belief was held as a belief that growth solves development. Many economists cited Mexico as a prime example of success using the Washington Consensus’s free-trade approach.

On January 1, 1994, the Zapatista National Liberation Army revolted against the Mexican government (Naim, 2000). The revolt was unexpected and drew attention to the possibility that successful development may be more than just growth through free trade. This date marked when policy makers were forced to consider what went wrong in Mexico’s system after success had been found using solid, macroeconomic policy. Growth did not seem to matter to people if they were unable to go to hospitals and get medicines they needed (Naim, 2000).

This sort of discovery led to a divergence of

laissez-faire belief in the open market policies. Some economists argued that three conditions were needed for development: “a stable and credible policy environment, an open and competitive economy, and a focused public sector” (Stiglitz, 1995). This sort of government intervention and stable policy will protect against risk and allow a country to reap benefits from international trade once they can insure against external shocks. Stiglitz points to the examples of the East Asian Tigers, who did not have a highly centralized state, but broad policy packages in picking a specific industry to invest in will lead to economic and holistic growth. Stiglitz also claims that in the event of corruption among the governments of the Tiger countries, the benefits have far outweighed the costs. Bhagwati’s response to this is that this theory is based on an isolated observation in the realm of development and that there is no solid theoretical framework that supports the strategies of the Tigers (Naim,

2000)^{iv}. Stiglitz points to the provision of public education in South Korea, which resulted in gaining a 95% literacy rate as one of several examples in which the Tigers used public sector

provisions to increase quality of life that the market would not have (Stiglitz, 1998).

Other economists have joined Stiglitz’s approach to development citing the protection of the manufacturing sector to grant employment, skilled job creation, and multiple other positive spill-over effects while keeping the sector relatively protected (Tybout, 2000). Tybout claims that a protectionist regime may be desired under certain socio-economic conditions. Although when trade liberalization is established, efficiency levels will increase and domestic producers will exploit economies of scale.

The discipline of development experiences a back and forth discussion concerning the advocates of free trade based on theory and the advocates for *some* government intervention, who cite the Tigers. The collapse of the Asian Tigers into the Asian Debacle seems to show that their growth may not have been as great as would have been hoped. The

“While a protectionist regime may be desired under certain socio-economic conditions, when trade liberalization is established, efficiency levels will increase and domestic producers will exploit economies of scale.”

corruption that Bhagwati argues to eliminate while Stiglitz says is worth the risk had a large role to play in the Asian Debacle. It is difficult to say whether the benefit was worth the cost, but the experience of the Tigers provides insight into a new way of thinking about development economics. However, overall, the discipline of developmental economics stresses the importance of allowing the market to determine the state. Though some economists differ on how much control the state should exude in determining economic policy, the market is considered the ultimate determinance of growth and development (Bates, 1991). An important part of development is to remember that the goal is to attain the same status as that of the developed nations of the West. Many scholars point to the examples of Western Europe and the United States as a basis for determining what sort of economic and social policies are most desirable for attaining sustained development. Developed countries such as these have the political institutions prepared to respond against foreign shocks to insure against risk.

The literature in political science points to the importance of political intervention and political institutions in development.

Katzenstein claims that (Katzenstein, 1983) “the experience of the small European states suggests that political intervention... does not constrain, but complements international liberalization.” In his earlier work, Katzenstein points to 3 international effects from the experience of the West: interpenetration, interdependence, and interconnection (Katzenstein, 1976). All of the countries of the West were seen to have very similar political bodies on the most general level focusing on competitive political systems. The interpenetration of these societies forces a trade-based relationship between countries, which results in the interdependence of states. Political importance rests in the bureaucracies’ ability to implement policy responses to changes in international relations. Once interdependence is established, states become vulnerable and depend on each other to continue thriving in this interwoven, global economy. The interconnection of states through technological revolution in transportation and communication leaves states and

societies sensitive to the new decisions and activities of other states and societies. The policies other states use within this system of interconnection becomes a standard for the state to uphold at the same level or above the level of states with which they have constant contact. This informal, political bond helps insure against external shocks through long-standing, consistent, interwoven relationships. Through Katzenstein’s analysis of the activities in the West, a strong claim arises that a bureaucratic policy between interwoven states drives the level and ability of trade to exist freely between states (Katzenstein, 1976).

Given the importance of bureaucratic institutions as discussed above, the question arises of how much power the state should have over international trade relations. Fukuyama (2004) explores the role that state strength and scope play in development. He points to the US political institutions, which created a state with small scope but a sufficient amount of strength within its scope. This combination of scope and state was born from the American Revolution’s

revolt against state authority. Contrasting with the experience of France, France has a state with a large scope and a large amount of

“Bureaucratic policy between interwoven states drives the level and ability of trade to exist freely between states.”

strength. Fukuyama argues that a strong state is more important than a large scope. This allows for both the development of France and the United States to be explained well in how they were able to develop and globalize successfully. This explains the post-communist countries’ failures to succeed at economic reforms. Development economists argued vehemently for the immediate privatization of old government institutions. The scope and strength of the state was so diminished in those countries that privatization became an enormous disaster due to asymmetric information without any governmental agency strong enough to correct these market failures. Even Milton Friedman noted that his demand of the Eastern European states to privatize was his mistake. He was able to see that the rule of law was more basic than privatization^v (Fukuyama, 2004).

The literature on the economies of the West explores the internal, political basis for maintaining open trade regimes (Bates, 1991). Some develop-

ment economists advocate open markets to shape government, while some political scientists advocate the state should shape economic policy and trade. Arising from the depths of this debate is the literature concerning the impact of risk on the structuring of institutions.

Bates cites Oliver Williamson as the founder of this theory concerning risk and the availability of instruments for dealing with risk as they shape the structure of non-market institutions (Williamson, 1985)^{vi}. Williamson analyzed the role of the firm, law, lineages and households, contracts, and government agencies with respect to risk. Since Williamson, the literature on risk has become much more developed and discussed among economists and political scientists as an important role in developing countries.

Rodrik found in his analysis of trade liberalization that a positive association between trade exposure and scope of government exists, where many would assume a negative correlation between the two (Rodrik, 1998). He finds that government spending provides social insurance in economies that are vulnerable to external shock through free trade. Rodrik finds the interaction between volatility in terms of trade and product concentration of exports is highly significant with trade openness in his analysis. He cites Bates's article, declaring "public spending is a risk-reducing instrument on which there is greater reliance in more open economies" (Rodrik, 1998). In Rodrik's study, he found that measures of external risk are strongly correlated with terms-of-trade risk. He believes that government consumption is unstable and forces trade-liberalized countries to cover all sources of risk, including terms of trade. Rodrik tells us that external risk is largely determined by terms-of-trade risk, but how much risk will a country accept given that government consumption must try to stabilize risk?

Countries can be classified into three types of categories: risk averse, risk loving, and risk neutral (Adsera, 2002). Building on Williamson's assumption that a state must be able to insure against risk, Adsera views a state's attitude toward whether it has

the ability to insure against risk. The risk loving state will always benefit from free trade and is therefore able to insure against external shocks or is willing to weather external shocks. Since a highly negative external shock could cause social unrest, it is reasonable to assume that risk-loving states have the welfare systems in place that will insure against these shocks. Risk averse states will always suffer from free trade because of inability to cope with external shocks. Risk neutral states sometimes win and sometimes lose in free trade, so it is difficult to say how they will respond. In a given election, the people of a country must choose between candidates who will maximize their social benefit. Adsera shows that the risk loving state will choose trade liberalization, while the risk averse state will choose a protectionist regime. Adsera argues that unless a state has the resources to insure against risk, the state will implement tariffs in

order to gain funds to build the institutions necessary for insuring against risk (Adsera, 2002).

Applying this argument to the literature on

Western development and LDC development, the strength of state appears a powerful part of the development puzzle. Without the ability to levy and collect taxes, having a strong export economy, or implement tariffs to gain funds, there is no way for a government to have the strength to insure against macroeconomic risk in a free-trade society. Therefore, strength of state, as defined by Fukuyama and Katzenstein, is crucial in enabling trade openness to be a suitable economic policy. If a state is weak, it will be forced to fall into protectionist policies to keep its people employed, or face the possibility of revolt and social unrest, such as seen in Mexico in 1994 (Naim, 2000). A weak state will shift towards autarky until their tariffs are high enough to offset the risk of collapse due to external macroeconomic volatility in terms-of-trade. Fukuyama's theory on the lack of importance in scope of state, due to the US example, runs contrary to Rodrik's empirical study on scope of state. It may be the case that the US is a sort of anomaly in the Western countries, which would imply that strength and scope of state normally follow each other hand in hand. Considering either

"An analysis of trade liberalization found that a positive association between trade exposure and scope of government exists."

strength or scope of state, the literature on risk seems to agree with the literature on the Western countries that the ability to insure against risk through a strong state will lead a country to enjoy success through free trade.

Some development economists are now struggling to discover what method of development is best for the LDCs. It is clear that the Washington Consensus has not been as successful as hoped, but economists are working on solutions to this problem. Bhagwati's theories are sound; however, they do not take political or social factors into account and look towards the long run benefit of the state as a whole. Therefore, economic methods of easing the process have been proposed through Killick's belief that a gradual process is required in order to enable the smooth transition from a state of autarky to liberalized trading policy. Tybout seems to be returning to the belief that a "big push" will aid developing nations to establish institutions quicker than they would have if simply liberalizing trade from the beginning. The literature on risk shows us how the economic theory and political realities mesh together into methods to insure against risk. A big push towards creating solid governmental institutions will enable free trade with the mechanisms in place needed to insure against volatility in terms-of-trade. Once LDCs have the ability to insure against risk, they will be able to engage in free trade more openly.

These arguments draw back to Bates's argument that the international economic environment allows opportunities for gains from trade along with exposing danger to risk. This results in higher levels of terms-of-trade risk facing a country and increases in trade barriers. If social insurance programs in a country are sufficient, the government will likely decrease the barriers to free trade. His analysis of tariff protection and domestic transfers allow a common theoretical basis for the different bodies of literature to reconcile their competing views (Bates, 1991).

III. RISK VARIABLES

The hypothesis that arises from the literature on risk is that an increase in instability in terms of trade will decrease the level of trade openness in a given country. Bates, Adsera, and Rodrik have found this in studies similar to this one. The question regarding the work of Bates is whether his specific findings will stand up to the newer era of international trade policy. With countries being forced to open

their borders to trade in order to gain aid from the World Bank and IMF under the Washington Consensus, it is entirely possible that countries with high levels of instability in terms of trade are being forced to keep their borders open when they would normally not. This study will also look at other variables that may affect trade openness or risk.

With respect to Bates's use of variables, this paper will use the same variables and how they were operationalized. The dependent variable in this study is 'trade openness.' Openness is used as the logarithm of exports plus imports divided by gross national product in US dollars multiplied by 100. Data for the time period 1985-1995 is collected from the World Development Indicators^{vii}. Bates used another dependent variable 'trade policy' to see if there was an empirical way of measuring why countries chose to pursue a trade orientation of strongly inward, moderately inward, moderately outward, or strongly outward. Unfortunately, there was no way to update this source, so the variable 'trade policy' was unusable in this study^{viii}.

The independent variables Bates uses are income, 'instability', 'population', 'revenues collected', and 'transfer payments'. These variables are operationalized in the way Bates had done. Income is measured by taking the logarithm of per capita GDP in US dollars. Instability is taken by the logarithm of the measure of instability in terms of trade^{ix}. Population is used by the logarithm of population in tens of millions. Revenue collected is measured by the logarithm of per capita revenues collected from sources other than trade measured in millions of US dollars. Transfer Payments are measured as the logarithm of Transfer Payments as a percentage of total expenditures. In addition to the independent variables used by Bates, this paper introduces the independent variable 'tariffs' and 'government consumption'. Tariffs are operationalized by taking the logarithm of tariffs collected is a percentage of government expenditure. All of these independent variables will use the source: World Development Indicators.

The question to ask when running the analysis is, will an increase in the dependent variable have a positive, or a negative correlation? From the work of Bates, the expected signs are explicitly drawn out from his empirical work for the prior decades. Bates found that Instability, Population, and Income had negative correlations with Trade Openness. Higher levels of instability means that the government does

TABLE 1
Means and Standard
Deviations of the Variables

Variable	Mean	Stand Dev.
Avg. Open	74.6	43.3
TOT Inst.	8.36	7
Avg. Inc.	\$6,123	9187
Avg. Tariff	13.40%	13.5
Avg. TRPA	33.60%	20.4
Avg. Pop.	26.9 mill.	104.8 mill.
Avg. Rev.	\$2,569	3520

TABLE 2
Correlations to the Natural Log of
Trade Openness

Variable	Correlation	Significance	N
Ln Instability	-0.489	0.002	39
Ln Income	0.227	0.009	130
Ln Tariff	-0.026	0.837	63
Ln TRPA	-0.163	0.203	63
Ln Population	-0.707	0	133
Ln Revenue	0.216	0.089	63

not have the capabilities to insure against external shock, so the higher the instability, the less likely trade liberalization is to occur. Bates found that Revenue and Transfer Payments had positive correlations with Trade Openness. This is logical because they enable the government to insure against risk. Tariffs should have a negative correlation with Trade Openness because tariffs make international trade more expensive to conduct.

From these variables arises 2 models, the first one explicitly used by Bates and the second one including the two variables Bates used against trade policy with the introduction of the variable Tariffs from this study. See the Appendix for the explicit layout of the models.

When all of the data was finally collected, only 38 countries had enough data to test in the original model used by Bates, but only 28 countries had enough data to run the second model used in this paper. The low N value means that the regression is likely to yield a low significance. This is a problem to keep in mind when reading how significant the values are in this study. See Appendix Table 1 for countries used.

IV. RESULTS

In order to obtain a better picture of the world, descriptive statistics were run to find what the world averages were for the different variables when data was available. The average level of trade openness was 74% of GDP, the average level of instability was 8.4, the average income was \$6,123 per capita, the average tariff level was 13.4% of revenue, average transfer payments were 33% of the current account, average population was 26.9 million people, and the average non-tariff revenue per capita was \$2,569. The standard deviations for each variable were large, so not too much can be told from just the means of these independent variables and how they will affect trade openness. For full descriptive statistics, see Table 1.

The next step taken to determine if there was a high correlation between any of the variables and trade openness was to run a bivariate analysis of the data. The analysis used the versions of the variables after taking the natural log of the variables. The three variables with significance at the .01 level to trade openness were the same three that Bates used in his analysis of trade openness: instability, income, and population. Their respective correlations were -.489, +.227, and -.707 (For full bivariate analysis, see

TABLE 3
Regression of Bates's Model

Variable	Beta Coef.	Significance	T-Statistic
Constant	10.341	0	12.715
Ln Instability	-0.463	0	-4.716
Ln Income	-0.12	0.011	-2.68
Ln Population	-0.27	0	-8.245

TABLE 4
Full Regression Model
Against Trade Openness

Variable	Beta Coef.	Significance	T-Statistic
Constant	11.079	0	11.108
Ln Instability	-0.224	0.067	-1.929
Ln Income	-0.474	0.046	-2.122
Ln Population	-0.255	0	-6.592
Ln TRPA	-0.129	0.28	-0.16
Ln Revenue	0.301	0.173	1.412
Ln Tariff	-0.047	0.125	-1.596

Table 2). Tariffs, transfer payments, and revenue were not significantly correlated; however, the corresponding signs were as predicted for all but transfer payments. Transfer payments had a correlation of -.163 with a significance of .203. The incorrectly predicted sign may be because of a lack of data, so it is difficult to determine what this result means.

The bivariate analysis came out slightly different than expected. In the analysis done by Bates, he found income to have a negative, but very small correlation with trade openness. The divergence here from the work done by Bates demands that the issue be pushed on to a further analysis of the data.

The regression model using Bates's empirical model came out both robust and significant when using the logged versions of population, instability, and income against trade openness (Table 3). The R^2 was .743 with a significance of .000 and a standard error of .323. Instability had a coefficient of -.463 and a significance of .000, making it the most robust of the variables in determining trade openness. Population had a -.270 coefficient and a significance of .000. So population and instability both were significant and negative, in accordance with the research done by Bates. While the bivariate analysis showed a positive correlation for income to openness, the regression came out with the predicted sign. Income had a coefficient of -.120 and a significance of .011. The change in coefficient may be due to the sample size decreasing from 130 to 38, however it does seem strange that this correlation would flip from one analysis to another. This is a strange phenomenon with a small significance that should be researched further. Seeing that the model used by Bates proved both significant statistically and substantively, another regression was run to see if the addition of the three other variables would help in determining trade openness.

The second regression drew a better line than the first regression, but was not as significant. The introduction of the logged values of transfer payments, tariffs, and revenue dropped the sample size from 38 to 27, which would account for some of the lost significance. The line itself had an R^2 of .817, a significance of .000, and a standard error of .252 (Table 4). These significant and robust numbers show that the variables introduced added greater understanding to why countries are more open. Unfortunately, the significance each independent variable was not very good.

In this analysis, all of the variables came out with their expected sign except transfer payments. Instability had a coefficient of -.224 and a significance of .067, income a -.474 and a .046, population a -.255 and a .000, transfer payments a -.129 and a .280, revenue a +.301 and a .173, and tariffs a -.047 and a .125. The three variables used in the first analysis were the most significant and retained their signs. Transfer payments were the least significant and it is hard to say whether the coefficient is worth considering. Revenue and tariffs, however, have the correct sign and a bad, but not too bad significance considering the small sample size. These two variables should be studied when more data is available to see if they are significant determinants in trade openness. If this is the case, they are two variables that are easily controlled by the government and can be manipulated to suit the macroeconomic goals of the state.

V. CONCLUDING REMARKS AND DISCUSSION

The hypothesis originated by Bates that the level of instability in terms of trade is a large factor in determining the level of trade openness in a country proves to remain an important factor. The correlation and the regression coefficient were both significant and substantial. One of the surprising findings from this analysis was the positive coefficient in income in the bivariate analysis and first regression as opposed to Bates's negative coefficient. Population had an extremely large coefficient in the negative direction, which supported the findings of Bates.

It appears as if the role of risk is even more important from '85-'95 than in the prior two decades. The coefficient is stronger (-.463) than the -.163 ('63-'73) and -.287 from ('74-'84). The reason for this shift may be due to the small dataset, but a change in strength of coefficient needs to be researched further. Data on terms of trade needs to be gathered better in order to see why this increase in correlation has occurred. The lack of data on terms of trade instability limited the sample size greatly, so until more data is collected on this variable, it will be difficult to analyze why the coefficients vary so greatly in these 3 time periods. Either way, lowering instability in terms of trade proves to be one of the most controllable, efficient ways to control how open a country will be to trade.

Population was much more substantial than expected in correlation with openness. This may be

Appendix Table 1: Countries Used

Australia	Bangladesh	Brazil	Burkina Faso
Canada	Colombia	Costa Rica	Denmark
Finland	Germany	Greece	Guatemala
Hong Kong, China	Hungary	Iceland	India
Ireland	Israel	Italy	Jordan
Kenya	Luxembourg	Mauritius	Morocco
Netherlands	New Zealand	Norway	Pakistan
Portugal	Singapore	South Africa	Spain
Sri Lanka	Sweden	Switzerland	Thailand
United Kingdom	United States		

because larger populations have larger GDP, and will have a lower amount of trade internationally because of the ability to produce more domestically. If more goods can be produced within the country's border, then they do not need to trade internationally. This may account for the large coefficient in population against openness.

Tariffs did not have a significant correlation with trade openness in the bivariate analysis. This does not seem logical since high tariffs should lead to foreign goods being more expensive. One would expect tariffs to be significantly negative in comparison to trade openness. The sign is in the correct direction, but the correlation is both weak and not significant. This may be a sign that the way tariffs affect trade openness is changing and will need further research.

The most troublesome part of this paper was the lack of data. Bates had used a variable called "trade policy" for many tests he ran in his study. He ran analysis of every independent variable against trade policy and found significant and substantial results. Unfortunately, the data he used to determine trade orientation for the two time periods has not been updated and was unavailable for this study. If the World Bank would update this data, then a great deal would be added to this study.

APPENDIX

Bates's Model:

$$\text{Lopen} = a_1 + a_2*(\text{Linst}) + a_3*(\text{Lpop}) + a_4*(\text{Linc})$$

2nd Model:

$$\text{Lopen} = a_1 + a_2*(\text{Linst}) + a_3*(\text{Lpop}) + a_4*(\text{Linc}) + a_5*(\text{Lrev}) + a_6*(\text{Ltrpa}) + a_7*(\text{Ltarif})$$

ⁱ Bates's 1991 article is the basis for this paper. It follows his

structure of three bodies of literature: first is the view of development economists, second is the view of western developed countries, and third is the literature concerning risk.

ⁱⁱ Bates uses the World Bank classification of nation's economic policy from the World Development Report: 1987. I am unable to find an updated version of this that would be usable for this project, so the variable "trade policy" will need to be dropped.

ⁱⁱⁱ Developmental economists originally claimed that the infant industries needed a "big push" in order to propel the economy into legitimate competition with other countries. Some policies used were import-substitution, over or under valued exchange rates, and protective tariffs.

^{iv} In Naim's article, he depicts the violent dissent among members of the IMF and World Bank in dealing with what sorts of policies are best for a development strategy. Bhagwati joins in and decides that Stiglitz's plan is "plain ignorance."

^v Fukuyama cites an interview he had with Milton Friedman, "the dean of orthodox free-market economists" in 2001 concerning the failed privatization of the Eastern European states.

^{vi} Bates cites Williamson as the founder of the "Williamsonesque" perspective of risk, which is the perspective he continues with in this paper.

^{vii} This is a dataset published by the World Bank available on CD-Rom on the 2nd floor of the Ames Library.

^{viii} Bates used 'trade policy' from the 1987 World Development Report. Unfortunately, after searching through all of the later versions of this book, the table was never updated. World Bank data was unavailable for finding an updated source for this and so the variable was dropped from the analysis.

^{ix} Bates found the instability in terms of trade from the formula $\text{TOTt} = a_1 + a_2(\text{TOTt-1}) + u$. The 'u' value is the standard error of the estimate using this regression model. This value measures the terms of trade instability for a given country over the terms of trade instability for a given country over the 11-year period.

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