Undergraduate Economic Review

Volume 7 | Issue 1 Article 21

2011

Natural resource abundance and FDI in Latin America. The path of inequality.

Luciano H. Romero Mascarell

Duke University, luciano.romero@duke.edu

Natural resource abundance and FDI in Latin America. The path of inequality.

Abstract
Does natural resource abundance decrease Latin American Foreign Direct Investment? This paper studies the effects of natural resource abundance on foreign direct investment (FDI), by focusing on inequality as the channel that links these two variables. Two arguments in the literature inspire this paper: 1) scholars attribute Latin America's high income inequality to its abundance of natural resources; and 2) some scholars argue that income inequality leads to lower investment. I argue that large shares of capital-intensive endowments (export measured as percentage share of GDP) are associated with low levels of secondary and tertiary FDI. The theory is based on the Stopel-Samuelson model, which claims that rises in the price of a capital-intensive commodity leads to an increase in the return to capital, and conversely, to a fall in the return to labor and wages. I analyze this logic through a two-stage least square model examining 15 Latin American countries from 1984-2007. I conclude, among several conflicting results that the inequality levels generated by exports can explain 40 percent of the variance of secondary and tertiary FDI.

Keywords
Foreign direct investment, natural resources, inequality, Latin America, resource curse

Cover Page Footnote
Special thanks to Professor Erik Wibbels, Ph.D Associate Professor of Political Economy and Associate Chair of the Political Science Department at Duke University for the support throughout the process of writing this paper.

DUKE UNIVERSITY
DEPARTMENT OF POLITICAL SCIENCE

Natural resource abundance and Foreign Direct Investment in Latin America

The path of inequality

Luciano Romero Mascarell
Duke University
lhr2@duke.edu

Does natural resource abundance decrease Latin American Foreign Direct Investment? This paper studies the effects of natural resource abundance on foreign direct investment (FDI), by focusing on inequality as the channel that links these two variables. Two arguments in the literature inspire this paper: 1) scholars attribute Latin America's high income inequality to its abundance of natural resources; and 2) some scholars argue that income inequality leads to lower investment. I argue that large shares of capital-intensive endowments (export measured as percentage share of GDP) are associated with low levels of secondary and tertiary FDI. The theory is based on the Stopel-Samuelson model, which claims that rises in the price of a capital-intensive commodity leads to an increase in the return to capital, and conversely, to a fall in the return to labor and wages. I analyze this logic through a two-stage least square model examining 15 Latin American countries from 1984-2007. I conclude, among several conflicting results that the inequality levels generated by exports can explain 40 percent of the variance of secondary and tertiary FDI.

Natural Resource abundance and Foreign Direct Investment in Latin America

Does natural resource abundance decrease foreign direct investment?

Introduction

Foreign direct investment (FDI) is a crucial ingredient of the global economy. In Latin America, FDI is a major source of economic growth, employment, technology, and productivity. Because of these benefits, attracting FDI in the region has become a key element of strategies promoting economic development. However, attracting FDI requires governments in these countries to provide hospitable climates for foreign investors. A friendly environment for multinational corporations entails a set of macroeconomic factors such as welcoming exchange rates, inflation rates, tax rates and a degree of economic openness (Jensen 2003, 587-588). Qualitative or institutional factors favorable to FDI are the legal system, a politically stable host country, with high levels of human capital, measured by school enrollment (Walsh and Yu 2010, 4-7). Latin America faces great challenges in maintaining a friendly environment from both macroeconomic and institutional perspectives. The income inequality of the region, the highest in the world, remains one of its major defining characteristics. Scholars have pointed to the region's natural resource endowments as an explanation for the levels of inequality, also known as the "resource curse" (Sachs and Warner 1995, 4). In other words, countries gaining an important part of their revenues from natural resources tend to have a lower economic growth and suffer from higher poverty rates. This paper studies the effects of natural resource abundance on foreign direct investment (FDI), by focusing on inequality as the channel that links these two variables.

Scholars have dedicated large amount of research to the puzzle of Latin America's poor economic performance. Among the literature, two arguments inspire this paper: 1) explanations

attribute the region's high income inequality, to its abundance of natural resources (Leamer et al. 1999, 40); and 2) income inequality leads to lower investment (Alesina and Perotti 1996, 1225-1226). Leamer et. al (1999) explore the idea that countries with permanent agriculture and mineral extraction absorb a natural-resource-rich country's scarce savings, delaying the emergence of manufacturing. Nevertheless, they argue that if manufacturing does emerge it concentrates on moderate- to high-capital-intensive products. On the one hand, this path benefits these countries because it allows them to avoid competing with China and India, countries that are labor-abundant. On the other hand, resource-rich countries must pay the cost of a higher income inequality associated with the production of permanent crops and ores, and the delay in greater income equality caused by manufacturing and the accumulation of human capital that it requires to be sustained (Gelb 2010, 4-5).

For the purpose of the argument suppose that A = natural resource abundance, B = inequality, and C = FDI. Considering that scholars claim that A leads to B and that B leads to C, to what extent can we claim that A leads to C, through the path of B? This, of course, is an assumption grounded on the assertion that because it is assumed that natural resources abundance increases inequality, and because it is also assumed that inequality reduces investment, then natural resources will have a negative impact on such investments. Let us first examine the logical path from A to C, through B.

Literature Review and Theory

Natural resource abundance and inequality

A leads to B

Raúl Prebish (1949) put forth the argument that the abundance of natural endowments has an impoverishing effect on Latin American resource-rich countries. First, natural resource abundant countries face declining terms of trade: as developed nations accumulate wealth, its demands for raw materials declines relative to its demand for manufactures and services. Second, efforts to revert this cycle may aggravate it: in order to buy machinery and technology to begin producing manufactures, resource-rich countries have to further advance their export sales, decreasing their own price (Prebish 1949; Fishlow et al. 1978). This effect of natural resources has been exacerbated in Latin America countries where land ownership is highly concentrated, perpetuating inequality. Third, scholars link natural resources with income inequality based on the logic of the Stolper-Samuelson mapping of product prices into factor rewards. The model states that a rise in the relative price of a good will lead to a rise in the return to that factor which is used most intensively in the production of the good, and conversely, to a fall in the return to the other factor (Leamer et al.1999, 4-5). For example, in a scenario of high manufacture prices, Asian countries producing labor-intensive manufactures will experience a rise in the return to labor, and a fall in the return to capital. However, in Latin America, countries producing capital-intensive products like raw materials will experience a rise in the return to capital and a fall in the return to labor, meaning a decrease in workers' wages. Therefore, people in countries with an export product mix dominated by capital-intensive industries will have lesser access to the fruits of rising prices of these industries. In summary, factor rewards –i.e. workers' wages- depend

upon export product mix which depends upon endowments. As a result we can observe how some endowments attract sectors that promote equality, like in the case of Asian countries, and others, like in Latin America, do not (Leamer et al. 1999).

Finally, it is worth mentioning the impact of natural endowments on the evolution of political institutions in Latin America because it shows us another way in which the abundance of natural resources impact inequality. Engerman and Sokoloff (1997) argue that the abundance of tropical cropland in colonial Latin America created unequal and concentrated land ownership because the economies of scale of permanent crops –i.e. sugar, coffee- stimulated the acquisition of greater pieces of land. Furthermore, in Latin America, Spain tended to award very large pieces of land to worthy recipients, along with titles that fostered feudalism and politics of institutionalized exclusion (Leamer et al. 1999, 6). Spilimbergo et al. (1999) shows us how land-intensive countries have a less equal income distribution while skill intensive countries have a more equal income distribution, even when controlling for trade openness.

Inequality and investment

B leads to C

Foreign investment is very important to Latin America since it has been one of the major sources of external financing in the last few years and has also helped modernize the region's economic structure (García-Herrero and Santabárbara 2007, 3). There exists a widespread belief that FDI is the capital inflow that provides one of the greatest contributions to long-term growth and development (IMF, World Economic Outlook 2007). FDI lands in the host country with a variety of positive externalities: foreign technology and management skills that are adapted by the recipient country, and are translated into other sectors. Thus, attracting FDI is among the top

priorities of economic development. Favorable factors that make companies service foreign markets through affiliate production are: 1) access to resources and markets; 2) efficiency gains through synergies; and 3) acquisition of strategic assets (Walsh and Yu 2010, 4). In order for a company to be able to successfully attain the promises of those factors, there needs to be a welcoming and relatively stable economic and political environment, coupled with high levels of human capital to provide the labor force that FDI requires. However, in the context of unequal societies, like that of Latin America the job of setting a welcoming stage for FDI is harder to achieve. Alessina and Perotti (1996) claim that it is inequality what mainly generates the social discontent that sparks political instability and detracts foreign companies from investing. Their literature offers a model to measure the impact of inequality on investment through political instability, by regressing investment on an index of political stability, GDP, and school enrollment, on a sample of 71 countries. The authors find that political instability is negatively correlated to levels of investment, with no specification on whether this investment is foreign or domestic (Alesina and Perotti 1996, 1223-4).

Having discussed the impact of natural resource abundance on the levels of income distribution, and that of inequality on investment and considering that these models do not specify on the type of foreign investment, it is necessary to analyze the extent of such claims for FDI. Two questions remain to be answered: is natural resource abundance negatively correlated to levels of FDI? And is inequality the appropriate link to establish such negative relationship between natural resource and FDI? In other words, could we really claim that because natural resources increase inequality and because inequality decreases investment, then natural resources decrease investment? And if so, assuming that resource abundance fuels inequality, does it affect primary, secondary, and tertiary FDI in the same way?

Natural resource abundance and FDI

A leads to C

The literature has looked at several macroeconomic variables to explain the different levels of FDI throughout time. Authors have focused on the market size and growth potential due to the lower costs resulting from economies of scale. Evidence has been provided that larger populations and transition economies with larger economies attract more FDI (Resmini 2000; Bevan and Estrin 2000). Also, a decrease in openness has been found to enhance horizontal FDI as firms evade trade barriers by building production sites in other countries (Walsh and Yu 2010, 5). In a more obvious way, an increase in openness might be associated with an increase in FDI as the number of opportunities for investment increases (Resmini, 2000). In a similar way, weaker exchange rates in the recipient country increase FDI as the price of assets decrease (Froot and Stein 1991; Bloningen 1997). The very same large presence of international business leads to even higher levels of FDI, either because companies share projects, or because the mere presence of FDI signals to the community that the business environment is favorable. Businesses may value other companies' experience as a way of reducing costs by avoiding previous contextual mistakes.

Recent findings have highlighted the constraints faced by foreign firms in their activity due to a lack of physical infrastructure, and skilled workers compared to firms supplying the domestic market (Kinda 2009). This would give us reasons to suggest that secondary and tertiary FDI are positively correlated with secondary and tertiary school enrollment. These types of FDI require higher levels of education than primary FDI since their supply consists of manufacturing and services, associated with a larger presence of skilled workers in their production functions. However, Walsh and Yu (2010) show that education, measured in school enrollment have little

effects on FDI. Their results highlight the negative relationship between secondary and tertiary school enrollment and levels of tertiary FDI. The reason they provide for this counterintuitive correlation is that current levels of enrollment do not reflect the level of skills attainment in the economy, and that tertiary education is too broad of a criterion, not reflecting the level of specific skills that workers need to encourage more FDI in services.

Furthermore, the literature has pointed to other factors affecting FDI in the region, for example, the nature of China's inward FDI. Authors have found that Chinese inward FDI have had a significant negative impact on FDI in Mexico, Colombia and Central America, because of the export oriented nature of their FDI inflows, which compete in the same export markets. They have also found that if FDI is oriented towards China's domestic demand, such as the case of exporters of commodities, then China's FDI inflows might be positive for those countries that have natural resources (García-Herrero and Santabárbara 2007).

Hypotheses

First, the logic of the first hypothesis follows the Stopel-Samuelson model: a rise in the relative price of a good will lead to a rise in the return to that factor which is used most intensively in the production of the good, and conversely, to a fall in the return to the other factor. I expect large shares of capital-intensive endowments (export measured as percentage share of GDP) to be associated with low levels of secondary and tertiary FDI, because the little access of the general population to the fruits of the capital puts downward pressure on workers' wages. This pressure not only increases inequality but also limits the workers' opportunities of investing in their education. The less educated a society is, the fewer the supply of skilled labor needed for manufactures and services. Furthermore, a population that has less participation in the large industries of the economy might observe difficulties in counting with the levels of income

needed for capturing the opportunities that could improve their status. Widespread unequal opportunities in education will first reduce the number of high-skilled workers, increasing the wages of these and widening the gap between low and high-skilled workers. Unequal redistribution of income will result in a more dissatisfied society, fueling social unrest and leading to more unstable political environments. Countries with such characteristics of internal conflict and unsteady politics could in turn detract big companies from investing. If economies do not count with a diversified net export product mix, and only hold large shares of capital-intensive industries, the resulting inequality will lead to higher levels of social discontent. Such discontent will be translated into a higher demand for fiscal redistribution, financed by distortionary taxation, thus lowering the rate of growth. High levels of inequality, coupled with low levels of growth due to distortionary taxation would lead to a less stable government and more divided government (Josten and Truger 2003, 5). As contending forces from the opposition might try to profit from the discontent of the people, the strength of government in the legislature and popular support might decrease. This will threaten the governability of the incumbent. In the context of poor institutions of enforcement of order, discontent might turn into riots and strikes that will make the country be perceived as unstable by foreign investors, lowering total FDI. Therefore:

$H_{1:}$ *large shares of capital-intensive endowments (measured as % export share of GDP) are associated with low levels of FDI.*

Second, I argue that larger shares of natural resources serving labor-intensive industries will increase the levels of secondary and tertiary FDI, because these industries will allow for a larger redistribution of capital among workers, compared to capital-intensive ones. Increases in the relative prices of labor-intensive industries will in turn increase the return to labor, which will

be translated in higher wages for workers. This permits the population to invest in education and increase human capital accumulation, setting a more appropriate labor environment for companies investing in manufacture and services, also known as secondary and tertiary FDI.

The more prevalent labor-intensive industries are in the export product mix of a country, the more equality they will generate because the amount of people that these industries will employ is significantly higher than that of capital-intensive ones, and therefore the more access society as a whole will have to the fruits of the capital (Leamer et al. 1999, 13-14). In good economic times, and good international prices the profit shares of labor-intensive industries will lead to a higher redistribution of wealth and a shortening of the gap between the rich and the poor. The factor rewards of employees of such industries will yield higher returns, and therefore will have more opportunities of investing in their own education. The more educated the society, the more likely that they will resolve their conflicts through negotiation and the less likely that social unrest will occur (Alesina and Perotti 1996, 1225). If economies count with a diversified net export product mix, and among them the labor-intensive industries hold a large share of exports the resulting benefits for workers could lead to higher school enrollment and a potential decrease in inequality. Secondary and tertiary investment will increase as the society will offer better opportunities for investors searching for skilled labor. Therefore:

$H_{2:}$ *large shares of natural resources that feed labor-intensive industries will increase the levels of secondary and tertiary FDI.*

A counter argument to these hypotheses is that downward pressure on wages due to a decrease in the return of factor rewards might attract foreign companies seeking for low labor costs. Furthermore, Falk (2002) argues that the interests of foreign companies are best served by governments that severely control their even dissatisfied workers, and that can ensure conditions

favorable to their investments (Blanton and Blanton 2007, 143). However, politicians seek reelection, and considering the political trend of Latin American leaders in the past ten years they are less permeable to lobby groups than they are to citizens' pressure. Broad access to elected officials and the democratic participation of dissatisfied citizens might offer institutionalized venues through which workers can seek protection from the state, like less flexible labor policies and longer contracts (Li and Resnick 2003, 177).

Methodology and Analysis

Model

This paper analyzes levels of natural resources, inequality, and FDI from fifteen Latin American[1] countries from years 1984 to 2007. The statistical model[2] takes the shape of a two-stage least square regression (2SLS) using a first model –Stage A- predicting inequality from natural resource abundance and a second model –Stage B- predicting investment from inequality. The first model, put forth by Leamer (1999), attempts to explain income inequality through the presence of natural resources, by regressing GINI values on net exports disaggregated by type - petroleum, agricultural, forest, labor and capital-intensive products, machinery, and chemicals. The second model, put forth by Alesina and Perotti (1996) attempts to explain levels of investment from levels of income inequality, by regressing levels of exports (as a percentage share of GDP), on GINI values. The 2SLS model set forth in this paper attempts to evaluate inequality as the path coefficient between natural resource abundance and FDI. My adaptation of the first model tries to predict levels of inequality (measured with GINI coefficients from the

[1] The fifteen Latin American countries are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Nicaragua, Paraguay, Peru, and Venezuela. Other countries from the region were excluded due to data availability on FDI.

WDI) from natural resource abundance (measured by industry exports as a share of GDP in constant U$ 2000). The control variables are replicated from the Leamer model as worker's share of crops and forest land (measured from WDI as the share of *Arable land* and *Forest land* in hectares per *Economically active population in agriculture*), and education (measured primary, secondary, and tertiary school enrollment).

My replication of the second stage uses the predicted GINI values obtained in the first stage to calculate on the one hand, the levels of primary FDI, and on the other the levels of secondary and tertiary FDI, aggregated. The control variables for the second stage attempt to resemble that of the Alesina and Perotti model: percentage of urban population and political instability (using two indicators from the International Country Risk Guide: internal conflict, and law and order). The 2SLS model looks as following:

Natural Resources and Primary FDI	*Stage A:*	1.a) INEQUALITY= B_0 + B_1 (LABOR-intensive) + B_2 (CAPITAL-intensive) + B_3 (Cropland/Agricultural worker) + B_4 (Forest land/Agricultural worker) + B_5 (Primary school enrollment) + B_6 (Secondary school enrollment) + B_7 (Tertiary school enrollment)
	Stage B:	1.b) PRIMARY FDI= B_0 + B_1 (INEQUALITY from *Stage A*) + B_2 (% Urban population) + B_3 (Cropland/Agricultural worker) + B_4 (Forest land/Agricultural worker) + B_5 (Internal conflict) + B_6 (Law and order)
Natural Resources and Secondary and Tertiary FDI	*Stage A:*	2.a) INEQUALITY= B_0 + B_1 (LABOR-intensive) + B_2 (CAPITAL-intensive) + B_3 (Cropland/Agricultural worker) + B_4 (Forest land/Agricultural worker) + B_5 (Primary school enrollment) + B_6 (Secondary school enrollment) + B_7 (Tertiary school enrollment)
	Stage B:	2.b) SECONDARY and TERTIARY FDI= B_0 + B_1 (INEQUALITY from *Stage A*) + B_2 (% Urban population) + B_3 (Cropland/Agricultural worker) + B_4 (Forest land/Agricultural worker) + B_5 (Internal conflict) + B_6 (Law and order)

Dependent Variables

The dependent variable of income inequality is measured by the GINI coefficients of the fifteen Latin American countries taken from the World Development Indicators database. The dependent variables of primary, secondary, and tertiary FDI are from the United Nations database. The models by Leamer et al. and Alesina and Perotti that inspired this research utilize the same variables with the only difference that the latter do not specify whether investment is domestic or foreign. By differentiating FDI by primary, secondary, and tertiary we are able to better understand the implications of different types of export product mixes, and their impact on inequality. Primary FDI refers to investment in petroleum, mining, and agriculture. Secondary FDI refers to investment in manufacture industries. Tertiary FDI refers to investments in service industries. All types of FDI are measured as a percentage share of GDP (in constant U$ 2000).

Independent variables

Natural endowment indicators

In order to replicate as much as possible the Leamer et al. model I recreated their measures of exports, by replacing them with data from the World Development Indicators (WDI) and Food and Agriculture Organization (FAO). I revised the indicators provided by the WDI and noticed that the category of *Food* and *Agricultural Raw materials exports* was not applicable for testing the model that Laemer presents. In such categories, crops of all types are aggregated under a single variable: *Food*. I dismissed them since none of them allow us to differentiate between capital-intensive and labor-intensive exports in the region. Considering that cereals are more capital-intensive than other crops, like fruits and vegetables that employ more labor, I decided to break up the category of *Food* and measure raw material exports individually from FAO data on each of these commodities.

In order to resemble the Leamer et al. model I also recreated their measures of petroleum products, by replacing it with *Fuel exports* from the WDI. The Leamer et al.'s variable *MAT* (fertilizers, coal, natural gas, and metals) has been replaced by the WDI indicator *Ore exports* excluding natural gas due to data availability. The variable *TRP-PERM* (tropical permanent: fruit, sugar, and coffee) was replaced by FAO data on each of these commodities, adding vegetables to the list of this category, because FAO aggregates vegetables and fruits together. The variable *TRP-ANNUAL* (tropical annual: vegetables and grains) is composed by FAO values on exports of the three major types of grain in the region: maize, rice, and soybeans. The variable *ANL* (Animal products: live animals, meat dairy, eggs, fish, hides, and fats) has been gathered from FAO on all those commodities except live animals, because Latin America exports mostly meat rather than animals. The variable *CER* (Cereals and grains: cereals, feeding stuff, tobacco, oil seeds, and fibers) have all been individually collected using FAO data, as well as for the variables *FOR-PERM* (forest permanent: wood, lumber) and for *FOR-MANUF* (Forest manufactures: pulp and paper). The variable *LAB* (labor-intensive manufactures: furniture, clothing, footwear, coins) has been replaced by the indicator *Manufactures exports* from WDI. The variable *CAP* (capital-intensive manufactures: leather, rubber, textiles, iron, steel, fixtures) is probably the weakest of all the variables, since only rubber and textiles were available from FAO data. The variables *MCH* (machinery) and *CHM* (Chemicals) are part of the *Manufactures exports* indicator from the WDI. These variables from above have been grouped into two major variables: **CAPITAL-intensive** exports, and **LABOR-intensive** exports. CAPITAL aggregates *FOR-MANUF, Ores exports, Manufacture exports, CAP,* and *Fuels*. LABOR aggregates: *TRP-PERM, TRP-ANNUAL, ANL,* and *FOR-MANUF.*

Political instability indicators

The political instability index proposed by Alesina and Perotti poses a conceptual obstacle. Their index consists of five variables: *ASSASS* and *DEATH,* which capture phenomena of mass violence and illegal forms of political expression; *SCOUP* and *UCOUP,* which capture illegal and typically violent transfers of executive power, successful or unsuccessful; and *DEM* a dummy variable to control for the higher likelihood of violence in dictatorship. However, political instability is reflected not only in the outcomes (attempts of coup d'état, assassinations) but rather in the process of deterioration of government: government unity, legislative strength, popular support, unemployment, consumer confidence, contract viability/expropriation. Violence and attempts of coups do not capture the process of deterioration, which might become the red flags perceived by foreign companies, who by the time there has been a coup d'état they may have already withdrew their investments from the host country. The decision making process of a company deciding on whether to invest or not in a country involves analyzing a more general picture of political stability. Even though investors consider violence an important factor in the decision to invest, they would most likely not consider exact numbers of assassinations, but rather will try to get information on the general perception about the political environment of the host country.

Other options for measures of political instability are indicators from International Country Risk Guide (ICRG), Bertelsmann Transformation Index, the State Failure Index from Foreign Policy, and Nations in Transit, from Freedom House. The data sources of this index are extracted from expert assessments rating multiple countries. This index resembles that of Nations in Transit (Freedom House), Economist Intelligence Unit (EIU), Global Insight, World Bank CPIA. All these expert assessments have been widely used for comparisons across countries and over time. Their methods differ in several potentially important ways. The ratings for the ICRG

are formed by a network of correspondents with country-specific expertise, but are determined centrally by a very small number of people. Some scholars have disregarded the ICRG index for the lack of disclosure in their assessment criteria and its methodology (including sources of information) and for not facilitating extensive country narratives containing qualitative assessments to accompany the quantitative ratings (Knack, 2007). However, this index was adopted for this model because it not only focuses on political violence but also on the factors determining government stability that private investors care the most. Sources producing these types of indicators have different constituencies or audiences, with potential implications for what their ratings are measuring. The ICRG is marketed by profit-making companies and multi-national investors and other paying subscribers (Knack, 2007). Most subscribers to the ICRG are more interested in conditions facing foreign investors than in those facing local investors. The ICRG ratings can be expected to focus on those most pertinent obstacles facing foreign investors, who are their paying subscribers. For each of the five indicators of political instability the ICRG provides a single measure intended to reflect a mix of various other aspects. As a result, the indicators of political instability I decide to use for this research are taken from the International Country Risk Guide (ICRG).

The first of these indicators, called *internal conflict,* is an assessment of political violence in the country and its actual or potential impact on governance. The highest rating is given to those countries where there is no armed or civil opposition to the government and the government does not indulge in arbitrary violence, direct or indirect, against its own people. The lowest rating is given to a country embroiled in an on-going civil war. The risk rating assigned is the sum of three subcomponents (civil war/coup threat, terrorism/political violence, and civil disorder), each with a maximum score of four points and a minimum score of 0 points. A score

of 4 points equates to very low risk and a score of 0 points to very high risk. Finally, the indicators *law and order* are assessed separately, with each sub-component comprising zero to three points. The *law* sub-component is an assessment of the strength and impartiality of the legal system, while the *order* sub-component is an assessment of popular observance of the law. Thus, a country can enjoy a high rating – 3 – in terms of its judicial system, but a low rating – 1 – if it suffers from a very high crime rate of if the law is routinely ignored without effective sanction (for example, widespread illegal strikes).

Results:

The first stage of the multivariate regression does not entirely resonate with previous literature on the relationship between natural endowments and inequality. The model of natural resources is able to explain almost 40 percent of the variance in the levels of GINI coefficients. My results in **Table 1** show a strong positive correlation between inequality and levels of labor-intensive exports with significance of 1%. This strong relationship is the opposite that I expected. Countries that possess large shares of labor-intensive industries are associated with high levels of GINI coefficients, because the returns to labor might not increase with the rise of the relative prices of these industries. Setbacks to my hypothesis might become a plausible argument since an increase in return to factor rewards might be occurring as a result of regulatory labor policies or redistributive politics by the host country, such as government spending in social programs, subsidies etc. A strong positive relationship with a 1% statistical significance exists between levels of GINI and secondary school enrollment. This is also the opposite of what I expected.

Surprisingly, results show that capital-intensive exports have a negative relationship with GINI coefficients with 10% of statistical significance. This group of industries tends to have a higher concentration of capital in the hands of a small percentage of the population. Leamer et al.

show how these industries employ smaller numbers of workers, and I deduce that the negative relationship could be the result of the grouping of different variables with different product mix into a single variable. However, when the industries that compose the capital-intensive group are disaggregated by specific industry the relationship appears to be stronger among exports from industries such as mining and cereal. In comparison to the rest of the product mix of Latin American countries, the share of labor factors in these industries is significantly smaller than capital factors, relative to other commodities. Furthermore, tertiary education shows a sound negative relationship with GINI coefficients, which might not necessary be a causal connection, but the symptom of an already unequal society with a larger presence of skilled workers. If more people enroll in tertiary education, more people in the middle class have access to opportunities for higher wages. This result could be interpreted in two ways: or also that poor people accessing to tertiary education through publicly subsidized education, a factor not included in this model; or also that more middle income people are attaining education and distancing themselves from poor people in the job market.

Table 1

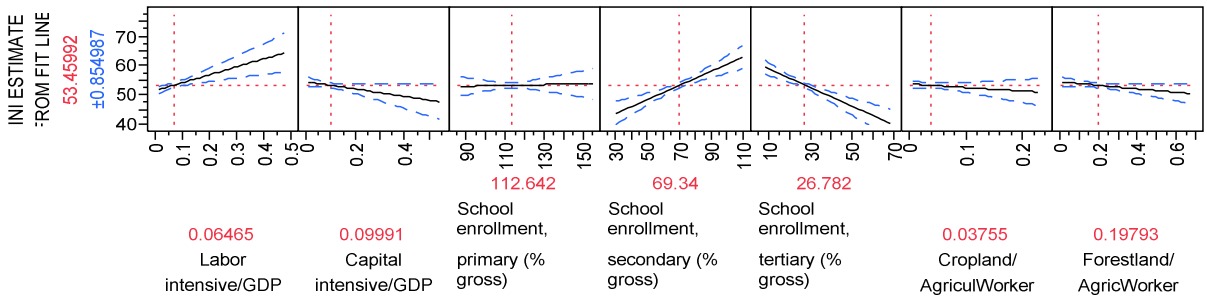
STAGE 1 Variables Grouped: GINI and correlations with Natural Resource Exports grouped into labor- and capital-intensive; Education, and Land Per Worker

Variables	Estimate coefficient	Standard error
Labor-intensive exports/GDP	27.152***	(7.965)
Capital-intensive exports /GDP	-12.726*	(6.912)
School enrollment, primary (% gross)	0.013	(0.061)
School enrollment, secondary (% gross)	0.237***	(0.048)

School enrollment, tertiary (% gross)	-0.317***	(0.060)
Cropland/Agricultural worker	-11.996	(12.084)
Forestland/Agricultural worker	-5.994*	(3.576)

Standard errors in parentheses

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



When I ungroup the variables composing the labor- and capital-intensive categories in **Table 2**, the results of some variables weakly confirm the hypothesis. First, the capital exports variable from the Leamer model –note that this is not the Capital-intensive variable grouping other capital-intensive industries- shows a sound positive relation with GINI coefficients. The results resonate with my hypothesis and with theories based on the Stopel-Samuelson model. As predicted, the results of tropical crops, fuels, and animal products show that their levels have a positive relation with GINI levels, having a negative impact on equality.

However, mining and cereals are negatively related to the levels of GINI. Both industries share the same characteristics of low levels of people employed, and a dependence on natural resources. Surprisingly, abundance of these endowments is correlated with high levels of equality, the opposite of what I expected and what Spilimbergo et al. (1999) had concluded. Government distortionary taxation might be interfering with the logical and expected impact of these industries on inequality. Cropland and forestland per agricultural worker shows a negative relation with GINI coefficients, which could be interpreted as capital-intensive agricultural

industries, contradicting my hypothesis. Tertiary school enrollment also shows a strong negative relationship with the levels of inequality. The results do not echo my hypothesis and a reason for this might be due to other factors not included in the model, such as type of tertiary enrollment, especially those involved in public education. Ungrouping the categories of labor- and capital-intensive does not allow us to conclude that countries with predominant capital-intensive exports in their product mix show higher levels of income inequality neither can we conclude the opposite about labor-intensive ones.

Table 2

STAGE 1 Variables Ungrouped: GINI and correlations with Natural Resource Exports ungrouped from labor- and capital- intensive type; Education, and Land Per Worker.[1]

Variables	Estimate	Standard Error
School enrollment, secondary (% gross)	0.283***	(0.053)
Ores exports/GDP	-48.114***	(12.545)
CAP exports/GDP	264.959***	(82.140)
Cropland/Agricultural Worker	**-37.991****	**(14.602)**
Fuel exports/GDP	**23.302****	(9.582)
TRP-ANNUAL exports/GDP	**287.696****	(120.786)
CER exports/GDP	-200.603**	(94.494)
School enrollment, tertiary (% gross)	-0.153**	(0.074)
Forestland/Agricultural Worker	-8.495**	(4.228)
ANL exports/GDP	**180.753***	**(97.361)**
TOTAL exports	0.000	(0.000)
FOR-MANUF exports/GDP	166.109	(196.084)
TRP-PERM exports/GDP	18.122	(23.008)
Manufacture exports/GDP	-6.413	(11.181)

FOR-PERM exports/GDP	-361.776	(1122.136)
School enrollment, primary (% gross)	0.019	0.065
Observations	360	
R^2	.4	

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

1 (exports as share of GDP in constant U$2000; education as primary, secondary, and tertiary school enrollment; Land per worker, as Crops and Forest land per Agricultural worker)

The predicted values of inequality generated by the regression line were used for the second stage of the research estimating primary, secondary, and tertiary FDI as a result of inequality (values from stage 1), percentage of urban population, and indicators of political instability are shown in **Table 3**. The results show that the relation between GINI coefficients and levels of primary FDI has no statistical significance. Notice that there is a strong positive relationship with secondary and tertiary FDI with less than 1% statistical significance. This, partially resonates with the results presented by Walsh and Yu (2010), who claim that primary investments that have little contact with the broader economy would not be expected to be affected by the development of the financial system or the degree of school enrollment in the population (Walsh and Yu, 2010, 13). However, the results do not echo the hypothesis in that levels of secondary and tertiary FDI increase in societies with labor-intensive industries that have more unequal societies. A possible explanation for this might be that secondary and tertiary FDI are not able to find the human capital and skilled labor required for manufacture- and service-oriented investments, as well as other factors outside of the scope of this paper.

As Alesina and Perotti (1996) demonstrated, my results show that political stability is generally associated with higher levels of primary, secondary, and tertiary FDI. Investors might follow other investors that have previously settled in a host country. In this way, knowledge about what countries are good for investment is signaled in the market place, and sometimes

shared from investor to investor because both might benefit greatly by the presence of the other due to potential partnership and cooperation. Even though increasing the inflow of FDI also raises competition in the host country, the business community might make the environment exponentially better for foreign businesses and may allow for the replication of good business practices and experience from those who have been in the host country for longer. Another conclusion is that inequality and political instability explain only 13 percent of the variance of primary FDI whereas inequality coupled with the same control variables explains 40 percent of the variance of secondary and tertiary FDI.

Table 3
STAGE 2: FDI, Inequality as a path coefficient, and Political Instability.

Variables	Total FDI	Primary FDI	Secondary and Tertiary FDI
GINI	0.000***	0.000	0.000***
	(0.000)	(0.000)	0.000
Urban population (% of total)	0.000	0.000	0.000*
	(0.000)	(0.000)	0.000
	(0.001)	(0.000)	0.001
Internal Conflict	-0.001	-0.001***	0.000
	(0.001)	(0.000)	0.000
Law and Order	**0.005*** **	**0.003*** **	**0.002***
	(0.001)	(0.001)	0.001
Observations	360	360	360
R^2		0.13	0.4

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Conclusion

Even though this research does not find strong evidence to prove that inequality is the appropriate coefficient path to explain levels of FDI from natural resource abundance, it does explain more the variance in secondary and tertiary FDI than it does in primary FDI. The inequality levels generated by the levels of capital and labor-intensive exports of the first stage of the model have a positive relationship with the levels of secondary and tertiary FDI, and no relation with the levels of primary FDI. Whereas the model predicting levels of primary FDI from levels of inequality explain 13 percent of the variance, the model predicting levels of secondary and tertiary FDI explain 40 percent. Even though, the results do not fit the hypotheses, they somewhat resonate with that of Leamer et al. Crops that require more labor such as the production of fruits and vegetables, have a positive effect on equality in the region. Finally, my results do not confirm the findings of Leamer and Alesina and Perotti, but further research is needed for the evaluation of inequality as the path coefficient explaining FDI from natural resource abundance.

Further research

The weakness of the model is the result of many factors that could be addressed in further research. First, omitted variable bias, caused by the exclusion of typical macroeconomic control variables for FDI such as openness, GDP growth, average inflation, real effective exchange rate, etc. could impact the results significantly. Even though data on these macroeconomic variables was collected it was not included in this model in order to replicate the work of Leamer and Alesina and Perotti, who only used the control variables specified in the 2SLS model.[3] Also, data

[3] Alesina and Perotti, who studied 71 countries also included other control variables for middle class, ratio of real domestic investment, percentage of the population belong to the main ethnic linguistic group, among those referred in this paper.

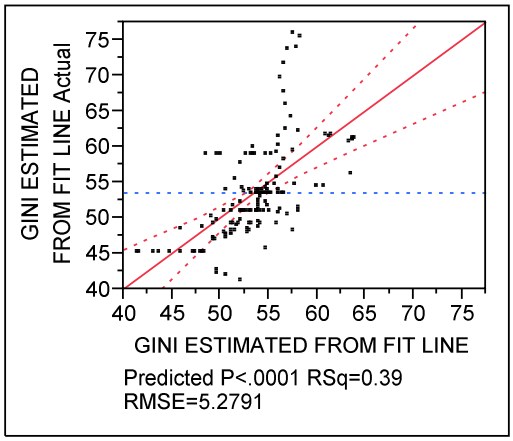
on FDI broken into primary, secondary, and tertiary was very incomplete and only the fifteen countries chosen had relative complete values. Also, adding more control variables would result in losing too many degrees of freedom for my small dataset. Second, issues of endogeneity might be impacting the high correlation between inequality and labor-intensive exports. It is uncertain from my model whether labor-intensive exports proliferate in more equal societies as society demands government to attract jobs, or whether equality is the result of labor-intensive industries that enjoy higher returns to factor rewards. The same applies for the negative relation between capital-intensive exports and inequality. Third, this paper does not include a correction of the variance-covariance usually performed in 2SLS models, by applying the correct mean squared error. Further research should address the temporal dependence of my data and the fact that errors cluster by country. Finally, natural resources such as land might have different effects on inequality, as crops that require more machinery and less labor experience high returns to capital might experience different export taxes. Unless the government engages in distortionary taxing from exports of those industries, then levels of equality might remain low. If this is the case, then future models should consider government spending in social programs and poverty alleviation as a percentage of GDP to capture the effect of government in redressing inequality.

DUKE UNIVERSITY
DEPARTMENT OF POLITICAL SCIENCE

APPENDIX

STAGE 1

Response GINI ESTIMATED FROM FIT LINE
Whole Model
Actual by Predicted Plot



Summary of Fit

RSquare	0.389816
RSquare Adj	0.359523
Root Mean Square Error	5.279111
Mean of Response	53.46007
Observations (or Sum Wgts)	149

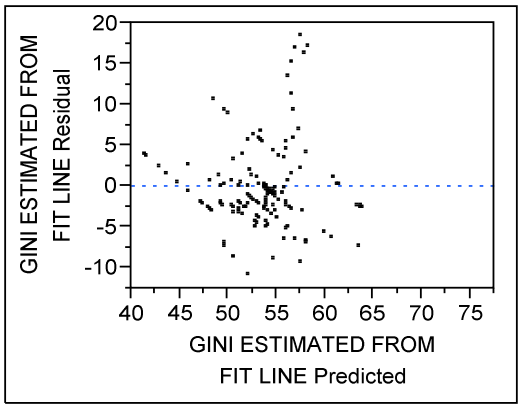
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	7	2510.3810	358.626	12.8683
Error	141	3929.5311	27.869	**Prob > F**
C. Total	148	6439.9122		<.0001*

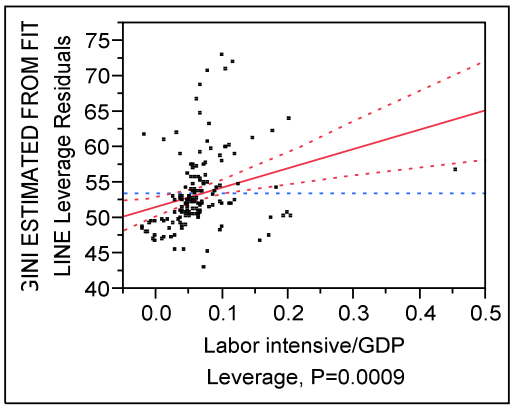
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	45.153234	5.712713	7.90	<.0001*
Labor intensive/GDP	27.151769	7.964554	3.41	0.0009*
Capital intensive/GDP	-12.72634	6.911893	-1.84	0.0677
School enrollment, primary (% gross)	0.0133385	0.061063	0.22	0.8274
School enrollment, secondary (% gross)	0.2371181	0.048346	4.90	<.0001*
School enrollment, tertiary (% gross)	-0.316805	0.060309	-5.25	<.0001*
Cropland/AgriculWorker	-11.99572	12.0835	-0.99	0.3225
Forestland/AgricWorker	-5.993621	3.576167	-1.68	0.0960

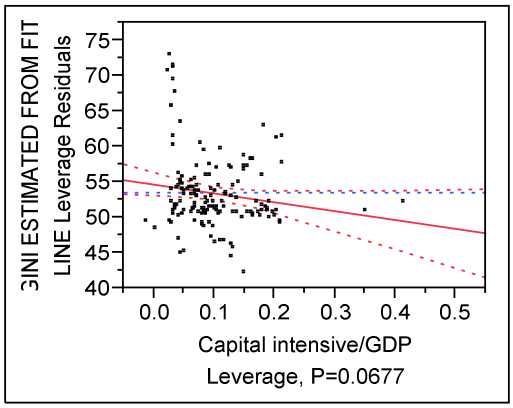
Residual by Predicted Plot



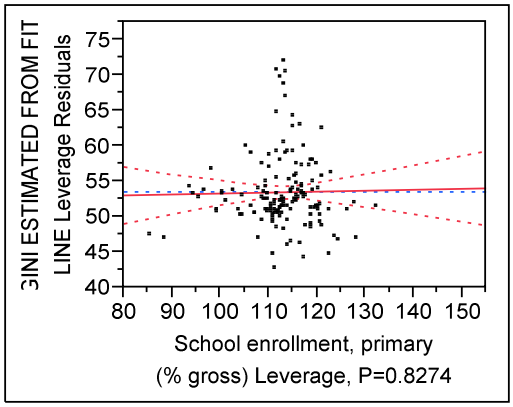
Labor intensive/GDP
Leverage Plot



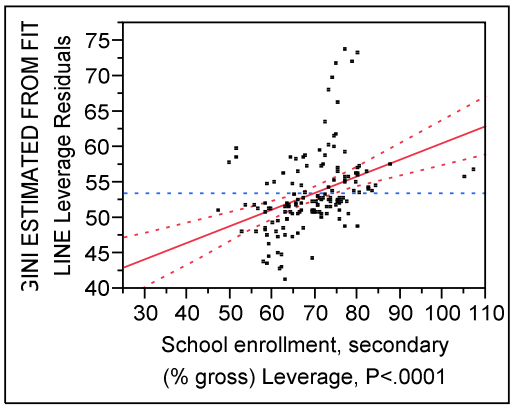
Capital intensive/GDP
Leverage Plot



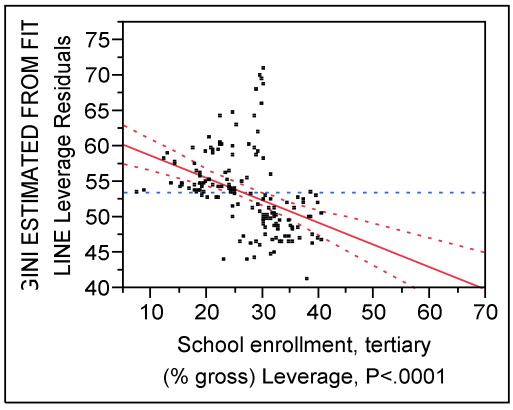
School enrollment, primary (% gross)
Leverage Plot



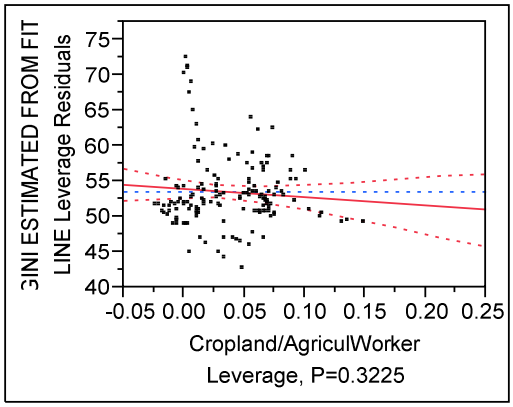
School enrollment, secondary (% gross)
Leverage Plot



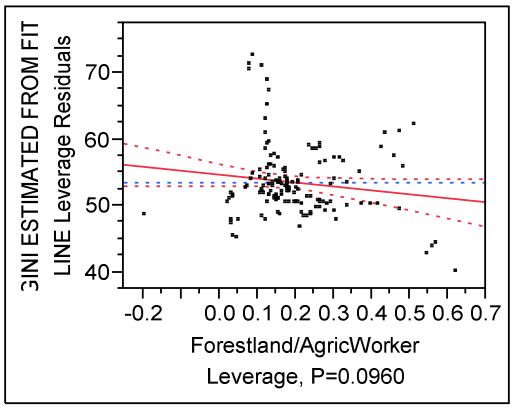
School enrollment, tertiary (% gross)
Leverage Plot



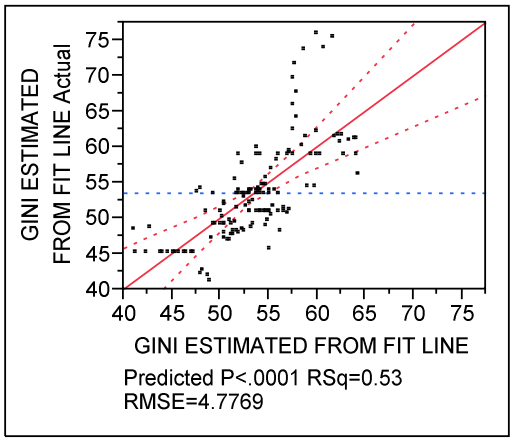
Cropland/AgriculWorker
Leverage Plot



Forestland/AgricWorker
Leverage Plot



Response GINI ESTIMATED FROM FIT LINE
Actual by Predicted Plot



Summary of Fit

RSquare	0.532284
RSquare Adj	0.475592
Root Mean Square Error	4.776876
Mean of Response	53.46007
Observations (or Sum Wgts)	149

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	16	3427.8649	214.242	9.3889
Error	132	3012.0472	22.819	**Prob > F**
C. Total	148	6439.9122		<.0001*

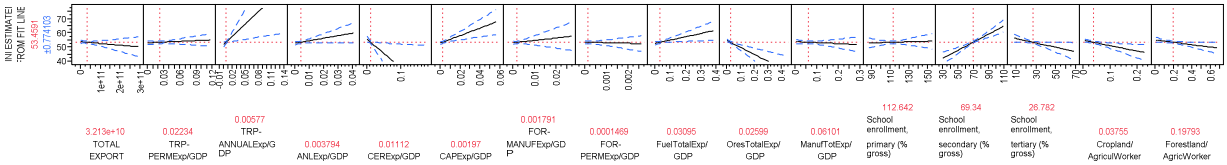
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	38.85227	6.022671	6.45	<.0001*
TOTAL EXPORT	-1.2e-11	1.34e-11	-0.90	0.3689
TRP-PERMExp/GDP	18.122137	23.00849	0.79	0.4323
TRP-ANNUALExp/GDP	287.69563	120.7857	2.38	0.0187*
ANLExp/GDP	180.75337	97.36118	1.86	0.0656
CERExp/GDP	-200.6028	94.49447	-2.12	0.0356*
CAPExp/GDP	264.95914	82.13953	3.23	0.0016*
FOR-MANUFExp/GDP	166.10939	196.0835	0.85	0.3985
FOR-PERMExp/GDP	-361.7763	1122.136	-0.32	0.7477
FuelTotalExp/GDP	23.301694	9.582488	2.43	0.0164*
OresTotalExp/GDP	-48.11397	12.54458	-3.84	0.0002*
ManufTotExp/GDP	-6.412795	11.18058	-0.57	0.5672
School enrollment, primary (% gross)	0.0194541	0.064645	0.30	0.7639
School enrollment, secondary (% gross)	0.2833097	0.053413	5.30	<.0001*
School enrollment, tertiary (% gross)	-0.153082	0.073664	-2.08	0.0396*
Cropland/AgriculWorker	-37.99078	14.60209	-2.60	0.0103*
Forestland/AgricWorker	-8.494896	4.227537	-2.01	0.0465*

Sorted Parameter Estimates

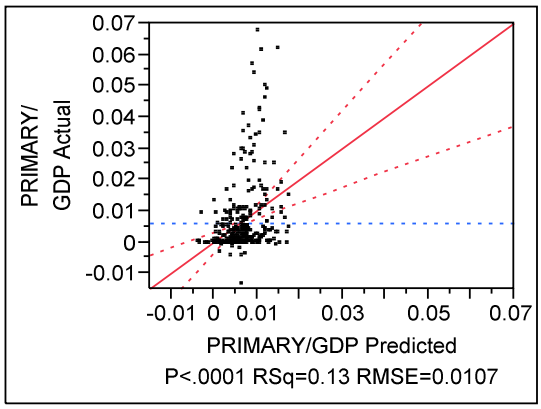
Term	Estimate	Std Error	t Ratio	Prob>|t|
School enrollment, secondary (% gross)	0.2833097	0.053413	5.30	<.0001*
OresTotalExp/GDP	-48.11397	12.54458	-3.84	0.0002*
CAPExp/GDP	264.95914	82.13953	3.23	0.0016*
Cropland/AgriculWorker	-37.99078	14.60209	-2.60	0.0103*
FuelTotalExp/GDP	23.301694	9.582488	2.43	0.0164*
TRP-ANNUALExp/GDP	287.69563	120.7857	2.38	0.0187*
CERExp/GDP	-200.6028	94.49447	-2.12	0.0356*
School enrollment, tertiary (% gross)	-0.153082	0.073664	-2.08	0.0396*
Forestland/AgricWorker	-8.494896	4.227537	-2.01	0.0465*
ANLExp/GDP	180.75337	97.36118	1.86	0.0656
TOTAL EXPORT	-1.2e-11	1.34e-11	-0.90	0.3689
FOR-MANUFExp/GDP	166.10939	196.0835	0.85	0.3985
TRP-PERMExp/GDP	18.122137	23.00849	0.79	0.4323
ManufTotExp/GDP	-6.412795	11.18058	-0.57	0.5672
FOR-PERMExp/GDP	-361.7763	1122.136	-0.32	0.7477
School enrollment, primary (% gross)	0.0194541	0.064645	0.30	0.7639

Prediction Profiler



STAGE 2

Response PRIMARY/GDP
Whole Model
Actual by Predicted Plot



Summary of Fit

RSquare	0.134758
RSquare Adj	0.117551
Root Mean Square Error	0.010698
Mean of Response	0.005917
Observations (or Sum Wgts)	360

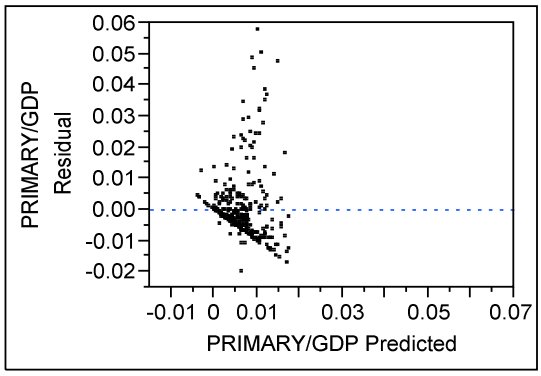
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	7	0.00627394	0.000896	7.8318
Error	352	0.04028334	0.000114	**Prob > F**
C. Total	359	0.04655728		<.0001*

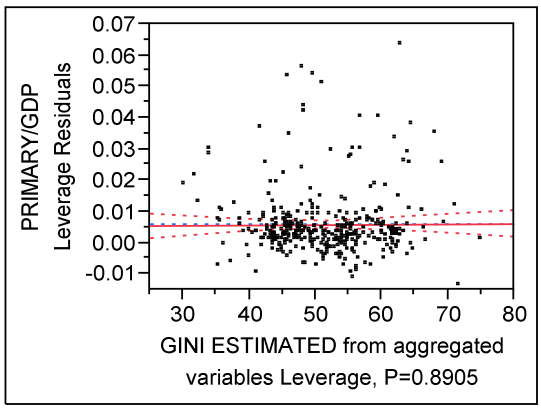
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-0.00438	0.004732	-0.93	0.3552
GINI ESTIMATED from aggregated variables	1.0368e-5	7.523e-5	0.14	0.8905
Urban population (% of total)	-8.277e-6	4.245e-5	-0.19	0.8455
InternalConflict	-0.001082	0.000317	-3.41	0.0007*
LawOrder	0.0029343	0.00069	4.25	<.0001*

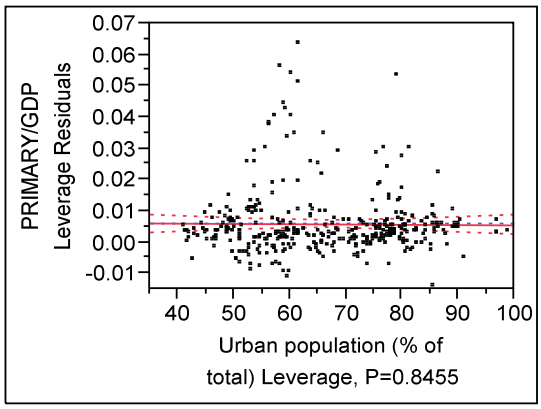
Residual by Predicted Plot



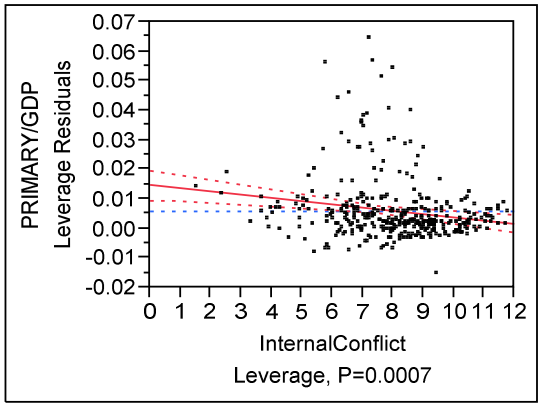
GINI ESTIMATED from aggregated variables Leverage Plot



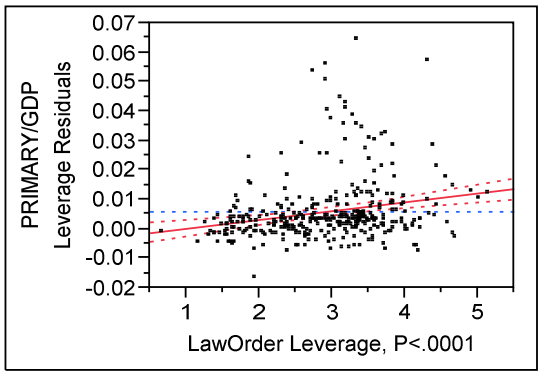
Urban population (% of total) Leverage Plot



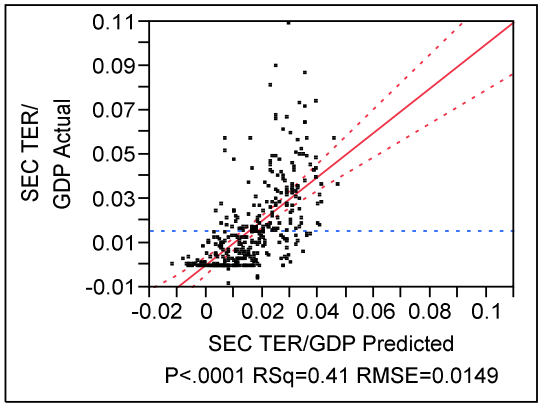
InternalConflict
Leverage Plot



LawOrder
Leverage Plot



Response SEC TER/GDP
Whole Model
Actual by Predicted Plot



Summary of Fit

RSquare	0.409001

RSquare Adj	0.397248
Root Mean Square Error	0.014866
Mean of Response	0.015764
Observations (or Sum Wgts)	360

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	7	0.05383886	0.007691	34.8002
Error	352	0.07779618	0.000221	**Prob > F**
C. Total	359	0.13163504		<.0001*

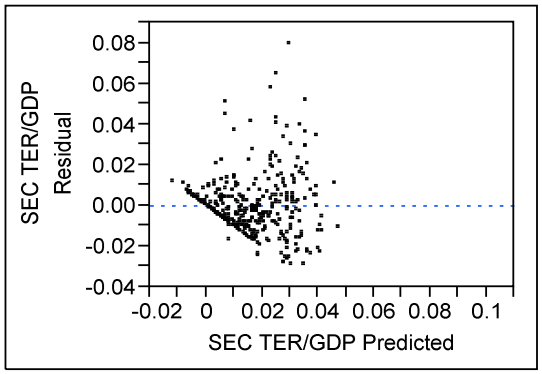
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-0.029089	0.006575	-4.42	<.0001*
GINI ESTIMATED from aggregated variables	0.0003515	0.000105	3.36	0.0009*
Urban population (% of total)	-0.000101	0.000059	-1.71	0.0889
InternalConflict	0.0003228	0.00044	0.73	0.4641
LawOrder	0.0017398	0.000959	1.82	0.0704

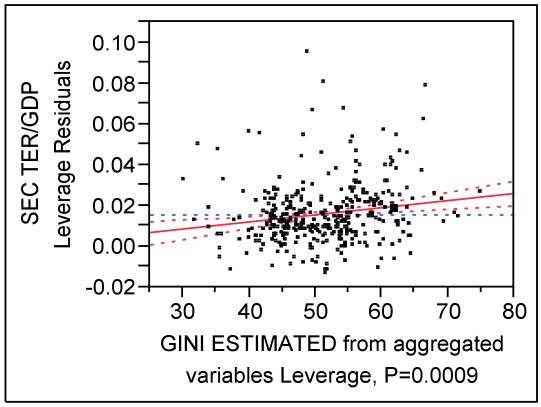
Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
GINI ESTIMATED from aggregated variables	1	1	0.00249857	11.3051	0.0009*
Urban population (% of total)	1	1	0.00064331	2.9108	0.0889
InternalConflict	1	1	0.00011874	0.5372	0.4641
LawOrder	1	1	0.00072808	3.2943	0.0704

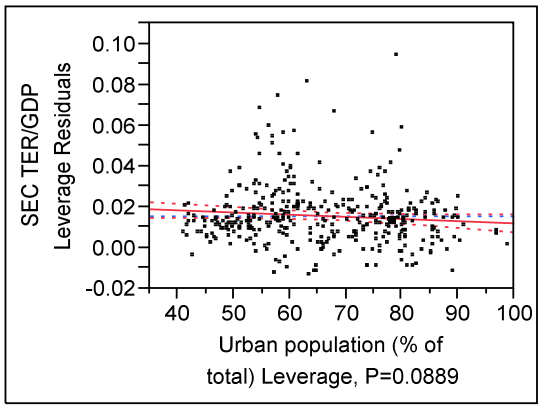
Residual by Predicted Plot



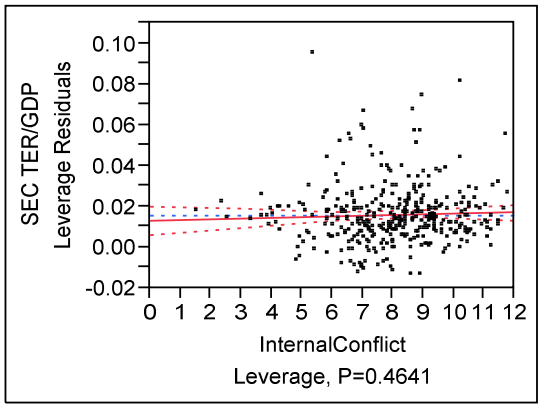
GINI ESTIMATED from aggregated variables
Leverage Plot



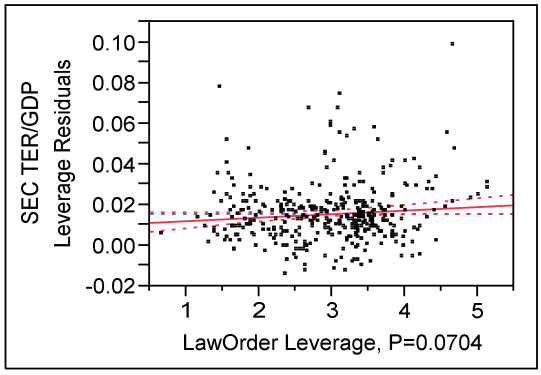
Urban population (% of total)
Leverage Plot



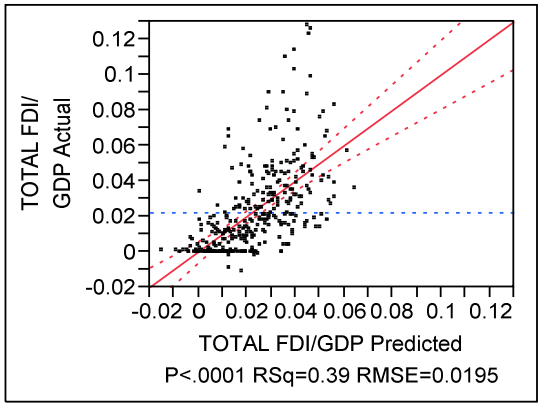
InternalConflict
Leverage Plot



LawOrder
Leverage Plot



Response TOTAL FDI/GDP
Whole Model
Actual by Predicted Plot



Summary of Fit

RSquare	0.39439
RSquare Adj	0.382346
Root Mean Square Error	0.019459
Mean of Response	0.021681
Observations (or Sum Wgts)	360

Analysis of Variance

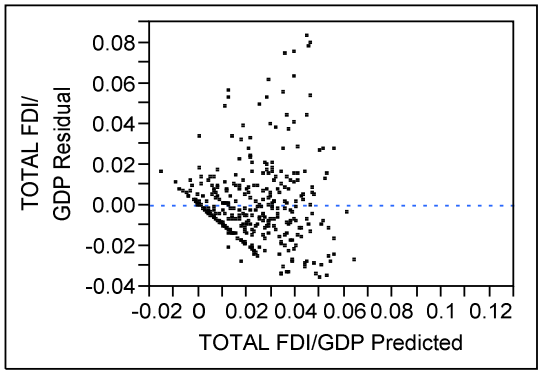
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	7	0.08680081	0.012400	32.7474
Error	352	0.13328820	0.000379	**Prob > F**
C. Total	359	0.22008901		<.0001*

Parameter Estimates

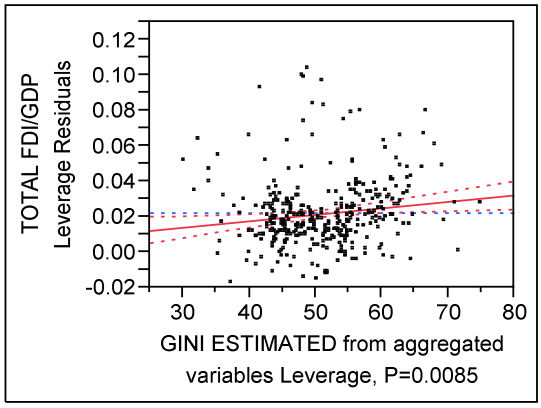
Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-0.033469	0.008607	-3.89	0.0001*
GINI ESTIMATED from aggregated variables	0.0003619	0.000137	2.64	0.0085*
Urban population (% of total)	-0.000109	7.722e-5	-1.41	0.1592

Term	Estimate	Std Error	t Ratio	Prob>|t|
InternalConflict	-0.000759	0.000577	-1.32	0.1889
LawOrder	0.0046741	0.001255	3.73	0.0002*

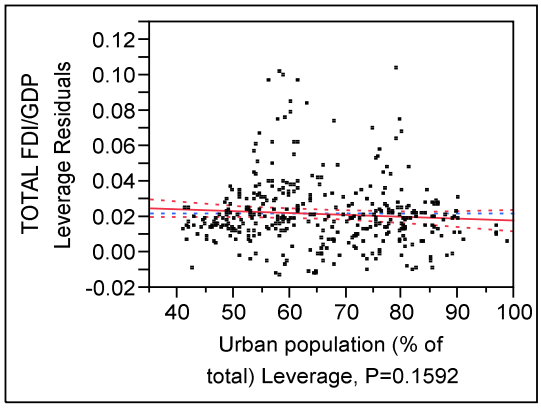
Residual by Predicted Plot



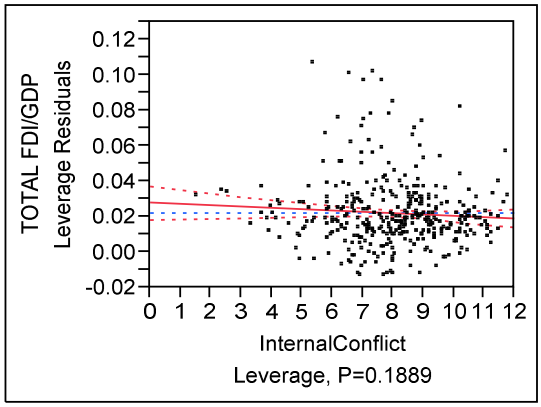
GINI ESTIMATED from aggregated variables Leverage Plot



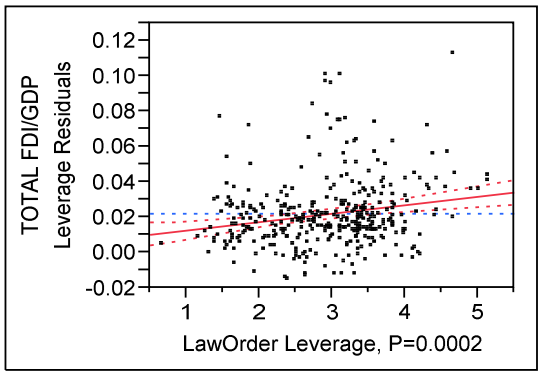
Urban population (% of total) Leverage Plot



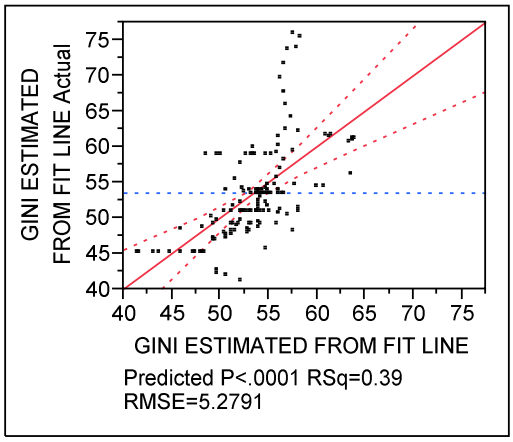
InternalConflict
Leverage Plot



LawOrder
Leverage Plot



Response GINI ESTIMATED FROM FIT LINE
Actual by Predicted Plot



Summary of Fit

RSquare	0.389816
RSquare Adj	0.359523
Root Mean Square Error	5.279111
Mean of Response	53.46007
Observations (or Sum Wgts)	149

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	7	2510.3810	358.626	12.8683
Error	141	3929.5311	27.869	**Prob > F**
C. Total	148	6439.9122		<.0001*

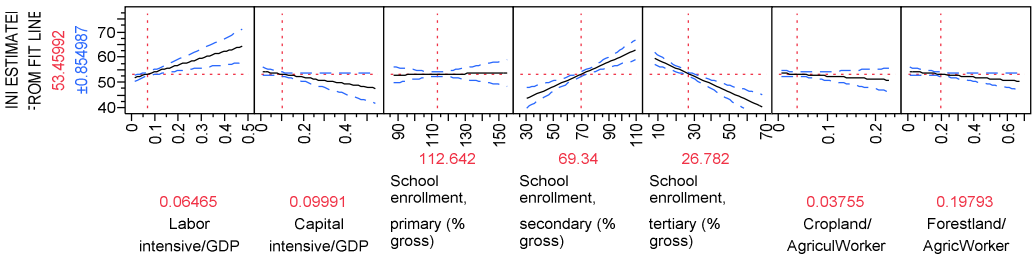
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	45.153234	5.712713	7.90	<.0001*
Labor intensive/GDP	27.151769	7.964554	3.41	0.0009*
Capital intensive/GDP	-12.72634	6.911893	-1.84	0.0677
School enrollment, primary (% gross)	0.0133385	0.061063	0.22	0.8274
School enrollment, secondary (% gross)	0.2371181	0.048346	4.90	<.0001*
School enrollment, tertiary (% gross)	-0.316805	0.060309	-5.25	<.0001*
Cropland/AgriculWorker	-11.99572	12.0835	-0.99	0.3225
Forestland/AgricWorker	-5.993621	3.576167	-1.68	0.0960

Sorted Parameter Estimates

Term	Estimate	Std Error	t Ratio	t Ratio	Prob>|t|
School enrollment, tertiary (% gross)	-0.316805	0.060309	-5.25		<.0001*
School enrollment, secondary (% gross)	0.2371181	0.048346	4.90		<.0001*
Labor intensive/GDP	27.151769	7.964554	3.41		0.0009*
Capital intensive/GDP	-12.72634	6.911893	-1.84		0.0677
Forestland/AgricWorker	-5.993621	3.576167	-1.68		0.0960
Cropland/AgriculWorker	-11.99572	12.0835	-0.99		0.3225
School enrollment, primary (% gross)	0.0133385	0.061063	0.22		0.8274

Prediction Profiler



Works cited

Alesina, A. and Roberto Perotti. 1996 "Income distribution, political instability, and investment" European Economic Review 40:1203-1228

Blanton, Shannon L. and Robert G. Blanton. 2007. "What Attracts Foreign Investors? An Examination of Human Rights and Foreign Direct Investment"The Journal of Politics 69: 143-155.

Bloningen, B. 2005. "A Review of the Empirical Literature on FDI Determinants" Atlantic Economic Journal 33: 383-403.

Engerman, S.L. and K.L. Sokoloff, 1997. "Factor Endowments, institutions, and differential paths of growth among new world economies: a view from economic historians of the United States. In: Haber, S. (Ed.), How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico" 1800-1914.

Falk, Richard, 2005. "Interpreting the Interaction of Global Markets and Human Rights" In Globalization and Human Rights, ed. Alison Brysk, Berkeley: University of California: 61-76.

Fishlow, A., Diaz-Akejandro, C.F. Fagan, R., Hansen, R.D., 1978. "Rich and Poor Nations in the World" McGraw-Hill.

Food and Agriculture Organization. Data online on Raw materials and Agricultural products.

Froot, Kenneth and Jeremy Stein, 1991. "Exchange Rates and Foreign Direct Investment: An Imperfect Capital Markets Approach" Quarterly Journal of Economics 106: 1191-1217.

García-Herrero, A. and Daniel Santabárbara 2007. "Does China have an impact on FDI to Latin America?" China Economic Review 18: 266-286.

Gelb, Alan, 2010 "Economic Diversification in Resource-rich countries" Center for Global Development: 1-23.

International Country Risk Guide, internal conflict and law and order indicators.

International Monetary Fund, 2007. "World Economic Outlook" 2007" Chapter 3, "Managing Large Capital Inflows".

Jensen, Nathan M. 2003. "Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment"International Organization 57:587-616.

Josten, S. and Achim Truger 2003. "Inequality, Politics, and Economic Growth: Three critical questions on politico-economic models of growth and distribution" Paper for the 59th IIPF conference, Prague, Czech Republic.

Knack, Stephen, 2007. "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures." Economics and Politics 7: 2007-27.

Kossinets, Gueorgi, and Duncan J. Watts. 2009. “Origins of Homophily in an Evolving Social Network.” American Journal of Sociology 115:405–50. Accessed February 28, 2010

Leamer, Edward., Hugo Maul., Sergio Rodríguez., and Peter Schhott, 1999. “Does natural resource abundance increase Latin American income inequality?” Journal of Development Economics 59:3-42.

Li, Quan and Adam Resnick. 2003. Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries”International Organization 57: 175-211.

Prebish, Raúl 1949. The Economic Development of Latin America and its Principal Problems. Lake Success: United Nations.

Resmini, L. 2000. “The Determinants of Foreign Direct Investment in the CEECs” Economics of Transition 8: 665-89.

Sachs, J. and Andrew Warner 1995. “Natural Resource Abundance and Economic Growth” Center For International Development and Harvard Institute for International Development 1-50.

Spilimbergo, Antonio, Juan Luis Londoño and Miguel Székely,1999. “Income distribution, factor endowments, and trade openness” Journal of Development Economics 59: 77-101.

United Nations database, ComTrade.