NATURAL RESOURCES AND INTERNATIONAL CAPITAL FLOWS

MAGDEFRAU Melissa
University of Central Arkansas, USA

THOMAS Snyder
University of Central Arkansas, USA

Abstract:

This study examines the relationship between international capital flows and natural resources, with a focus on natural resources' detrimental effect on institutions. In a cross-country OLS regression, natural resources appear to have a negative relationship with capital inflows when institutional quality is not controlled for. However, natural resources have a positive or insignificant relationship with capital inflows when institutions are controlled for. In a two-stage OLS regression, natural resources have a negative relationship with capital inflows through its negative effect on institutions. The measurement of institutions is taken from the Economic Freedom index by the Frasier Institute, while four different measurements of natural resource abundance are used. In particular, agriculture abundance has an indirect negative effect on capital inflows through its detrimental effect on economic freedom.

Key words: *Natural Resources; Capital Flows; Institutions*

2. Introduction

This paper examines the relationship between international capital flows and natural resources. All else equal, economic reasoning would suggest that a country with an abundance of natural resources would have more investment opportunities than a country with scarce natural resources. However, holding constant all other factors that influence investment is not possible in the real world. It is quite possible that the benefit of natural resources can be more than offset by the negative influences natural resources have on other factors that affect foreign investment. The negative effect of natural resources on the economy is sometimes referred to as the natural resource curse, and this phenomenon has been studied extensively in the literature. This paper explains the negative relationship between natural resources and foreign investment by examining the adverse effect natural resources have on institutions.

Our main contribution to the literature is to test the indirect effect of natural resources on foreign investment through institutions, using several measures of natural resources and institutions. The economic literature on the natural resource curse typically chooses just one or two measures of natural resources. However, it is not always clear what is meant by natural resources and how to measure them. If a country has a large amount of fertile land, does that make it more natural resource abundant than a country with desert land but an abundance of oil? In this paper we focus on agriculture (including fishing, forestry, and hunting) and oil, gas, coal, and metals. As a measure of institutions, we focus on property rights, trade freedom, and an overall economic freedom index, taken from the Economic Freedom of the World Annual Report (Gwartney and Lawson 2009).

Our results will demonstrate that when institutions are instrumented with natural resources, it explains the negative relationship between capital inflows and natural resources. In particular, agriculture tends to have a negative relationship with foreign investment, and this negative effect may come about because of natural resource's negative effect on institutions. When controlling for institutions, and other variables, agriculture has a positive and statistically significant relationship with capital inflows. This positive relationship does not imply that countries should pursue policies to develop agriculture, but in fact the opposite may be true – the benefits of agriculture may be more than offset by its negative effect on institutions. The benefit of natural resources will only come if it does not have a negative effect on institutions.

In the following section, we take a look at the literature for explanations to why natural resources could negatively affect institutions, and why institutions play a key role for foreign investment. We then connect the two literatures in the section III by analyzing the effect of natural resources on institutions, and how that relationship affects capital inflows. We offer policy considerations and possible future research in section IV.

3. Literature Review

The reasons for why natural resources affect the economy may be similar to the reasons for why natural resources affect foreign investment. Therefore, the most relevant literature to our study is the literature on the direct and indirect effect of natural resources on economic growth. Studies by Sachs and Warner (1995, 1997, 1999) demonstrated that countries with a high ratio of natural resource exports to GDP experienced slow economic growth, even if other variables that may affect economic growth are controlled for. A study by Gylfason and Zoega (2006) demonstrated that countries with a large share of natural capital as part of their total capital (physical, human, and natural capital) experienced a low economic growth rate. Papyrakis and Gerlagh (2007) examined the effect of natural resources on economic growth at the state level in the U.S., and they found that even within the U.S., there is a resource curse: those states that had a high share of their output from the primary sector had a low economic growth rate.

The appearance of a resource curse may have several possible explanations. In the seminal work by Sachs and Warner (1995), they described several possible explanations for their evidence of a natural resource curse. One possibility is that those who are endowed with natural resources enjoy easy riches, which may lead to laziness and sloth, while those who lack natural resources may be productive by necessity. Other studies suggest a "Dutch Disease," where a discovery of natural resources negatively affects manufacturing exports via the real exchange rate and loss of labor in the manufacturing sector (Corden & Neary, 1982). Krugman (1987) and Matsuyama (1992) suggest that if the manufacturing sector is characterized by learning-by-doing, then a country which has a comparative advantage in the natural resource or agricultural sector may not grow as fast as industrialized nations.

However, after the study by Sachs and Warner (1995), theories have focused on institutions as the cause of the natural resource curse. Political groups may create distortionary redistributive activity after a positive price shock (Tornell & Lane, 1999). A resource boom may increase rent-seeking activities and lower entrepreneurship (Baland & Francois, 2000). Entrepreneurs may engage in rent-seeking instead of running productive firms (Torvik, 2002). A study by Gylfason (2004) shows that natural resource "intensity" is positively related to political corruption. Political leaders can also be short-sighted and over-extract the resources (Robinson, et al. 2006). Isham, et al. (2005) show that those countries exporting "point-source" natural resources have poor institutions. A study by Butkiewicz and Yankkaya (2010) showed that developing countries suffer from a mineral resource curse, with evidence that the curse occurs because of rent-seeking or weak institutions.

Collier (2010) describes how natural resources may affect the political structure of a country and vice versa. For example, natural resource abundance may lead to a less accountable government than a natural-resource-scarce government that depends on tax revenue, which can lead to corruption and other adverse consequences. However, poor governance and property rights can lead to violence and rapid depletion of a resource. Haber and Menaldo (2010) point out that Rulers who inherited weak institutions typically have pressing fiscal needs and short time horizons, which encourage them to extract resources at high rates today instead of saving them for tomorrow.

If institutions are negatively affected by natural resources, then foreign investment can be discouraged because of those poor institutions. The relationship between institutions and capital flows is well established in the literature. Neoclassical economic theory suggests that capital should flow from rich countries to poor countries; however the reality is that most capital flows do not flow from rich countries to poor countries – and this phenomenon is sometimes referred to as the "Lucas Paradox" (Lucas 1990). Alfaro, et al. (2008) suggest that the "Paradox" can be explained by institutions. Their results indicate that "institutional quality is the leading casual variable explaining the Lucas Paradox." Klein (2005) also provided evidence that institutional quality is a main determinant for capital flows and economic development.

If natural resources affect institutions, and institutions affect capital flows, then a seemingly obvious next step would be to see the affect natural resources has on capital flows through its effect on institutions. However, this procedure seems to be missing in the literature. The following is an attempt to fill that gap in the literature by making the connections between natural resources, institutions, and capital flows.

4. Model, Data, and Empirical Results

We examine the period between 1970 and 2008 in a cross-section study across countries. Because of the recent financial crises, we do not include data after 2008, so our results will not be influenced by the large fluctuations in capital flows by factors outside our model. To measure capital inflows, we take the average annual per capita values of Foreign Direct investment and Portfolio Investment from 1970 to 2008 (in 1996 U.S. dollars, to compare with previous literature). Data on capital flows were taken from IMF's International Financial Statistics.

We use four measures of natural resources. One measure of natural resources is *agriculture value added*, percentage of GDP. This variable includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Another measure of natural resources is *total natural resources rents*, percentage of GDP. It includes oil rents, gas rents, coal rents, mineral rents, and forest rents. The third measure used is *agriculture exports*. It is the agriculture raw material exports, percentage of merchandise exports. The fourth measure used is *ores and metals exports*, percentage of merchandise exports. All of these variables were taken from the World Development Indicators (World Bank).

For institutions, we use indices in the Economic Freedom of the World 2009 Annual Report (Gwartney and Lawson 2009). The overall index is the average of five areas: 1) Size of government: expenditures, taxes and enterprises; 2) Legal structure and security of property rights; 3) Access to sound money; 4) Freedom to trade internationally; and 5) Regulation of credit, labor, and business. Each component gets a measure between 0 and 10, where a higher number represents more economic freedom, stronger property rights, or fewer government restrictions. For our results, we use the overall index (we label *institutions*), the second component (we label *prop rights*), and the fourth component (we label *trade freedom*). We chose those components since the theory suggested they play the most significant role.

Other variables that we include that might influence capital inflows include education, a measure of distance from financial centers, and a measure of initial GDP. A description of these variables and the other variables can be found in Table 1. We only focus on fundamental variables suggested by the theory, and include none that are "proximate" measures of capital inflows.

First, we observe the relationship between natural resources and capital inflows, without controlling for any other factors that could influence foreign investment in a standard OLS regression. Table 2 examines the relationship between natural resources and capital inflows, using the four different measurements of natural

resource abundance. Each variable has a negative and statistically significant coefficient. In Model 1, an increase in agriculture production (% of GDP) is associated with a decrease in capital inflows per capita. In Model 2, an increase in natural resource rents (% of GDP) is also associated with a decrease in capital inflows per capita. Model 3 shows that an increase in agriculture exports (% of merchandise exports) is associated with a decrease in capital inflows per capita; and Model 4 shows that an increase in ores and metals exports (% of merchandise exports) is also associated with a decrease in capital inflows per capita. These results show that there is a negative correlation between natural resources and capital inflows, even when using several different measurements of natural resource abundance. The rest of the paper seeks to explain this phenomenon.

This negative relationship shown in Table 2 could come about for several reasons. Since other variables that may affect capital flows are not included in the regression, omitted variable bias may be causing the coefficients on the natural resource variables to show up as negative when they are really positive. One obvious explanation is that the natural resource variables could be representing poor countries. Including average GDP during this period will be problematic though for two reasons. One reason is that capital inflows may increase GDP, which will drown out the significance of other variables. Another reason is that the variables that affect capital inflows will also affect GDP, and controlling for GDP will yield results that our not useful. However, the economic growth and capital flow literature points to one variable that could be very important: institutions.

All else equal, foreign investment flows to countries with strong property rights, politically stable environments, and those countries where there are not too many restrictions on trade or capital flows. However, the literature points to natural resources as a potential determinate of government policy. This means that if we wanted to see the effect that natural resources have on capital flows, including both natural resources and institutions in the same OLS regression would give us a misleading result about the effects of natural resources on capital flows.

Tables 3 through 5 examine the relationship between natural resources and different measurements of institutions. Table 3 examines the relationship between natural resources and property rights, without controlling for other variables. In all of the models of Table 3, natural resources have a negative relationship with institutions, and all of the coefficients are statistically significant. The literature and economic reasoning tends to point the causality going from natural resource abundance to institutions, instead of institutions to natural resource abundance. Given this relationship, the negative relationship between natural resources and property rights, it may help explain the negative relationship between natural resources and capital inflows.

Table 4 examines natural resources and trade freedom. This table gives significantly different results than Table 3. Models 1 and 3 demonstrate a negative relationship between agriculture abundance and trade freedom. In particular, agriculture value added (% of GDP) explains 41% of the variation in the trade freedom

index across countries. However, in Models 2 and 4, natural resource rents and ores and metals exports do not have a significant relationship with trade freedom. When it comes to trade freedom, it is a well known fact that agriculture is a sector that is highly protected against trade when compared to other sectors.

Table 5 examines natural resources and an overall measure of institutions. The coefficients in each model are negative, with only ores and metals exports having a coefficient that is insignificant. Overall, Tables 3 through 5 show some support for a negative correlation between natural resources and institutions. Property rights are negatively correlated with all four measures of natural resources, while trade freedom is negatively correlated with the agriculture measures. These results are generally supported by the literature. The literature, however, does not examine how natural resources affect capital flows because of natural resources' negative effect on institutions.

Table 6 examines the relationship between institutions and capital inflows. All measures of institutions are positively correlated with capital inflows. The models only include institutions as a determinant of capital flows, but those measures are robust when including other measures, as the previous literature has shown (Alfaro, et al. 2008). The results from Table 7 will be compared to the results from Tables 7 through 9, where institutions are instrumented by natural resources.

Table 7 displays the relationship between property rights and capital flows, after the property rights variable is instrumented by the different measures of natural resources. Model 1 shows the relationship between property rights and capital flows after instrumenting property rights with agriculture value added (% of GDP); Model 2 instruments property rights with natural resource rents; Model 3 instruments property rights with agriculture exports; and Model 4 instruments property rights with ores and metals exports. The two-stage least squares result in Model 1 shows that property rights are strongly correlated with capital inflows. If the causality works in the direction as the theory suggests, then if agriculture brings down property rights, it also brings down capital inflows substantially.

Model 2 and Model 3 in Table 7 show a similar result. If causality works in the direction as the theory suggests, then natural resources worsen property rights, which then worsens the foreign investment climate. Model 4 also has a positive coefficient on the instrumented property rights measure, but it is not statistically significant.

Table 8 performs a similar exercise as Table 7, but the instrumented variable is trade freedom. Model 1 shows support for the theory that agriculture abundance leads to trade restrictions and capital controls, which lead to a substantial decrease in capital inflows. The coefficient in Model 1 is positive and significant, so agriculture explains variations in capital flows through its effect on trade freedom. Model 3 instruments trade freedom with agriculture exports, and it also has a positive and statistically significant coefficient. Models 2 instruments trade freedom with natural resource rents and Model 4 instruments trade freedom with ores and metals exports, but neither coefficient is statistically significant.

Table 9 performs the same exercise as tables 7 and 8, but the overall measure of institutions is instrumented by natural resources. The first three models have a positive and significant coefficient, with only Model 4 (ores and metals exports) being an exception.

Overall, tables 7 through 9 shows that agriculture abundance explains variation in capital inflows across countries through their effect on property rights, trade freedom, and overall institutions. Natural resource rents may also play a role, but their effect is not as robust effect that agriculture has on institutions.

The results to this point have not taken into account the other fundamental determinants of capital inflows besides natural resources and institutions, for reasons previously discussed. However, to see the direct affect of natural resources on capital flows, we must include other variables in the regression. Table 10 displays the standard OLS results with several important determinants of capital inflows, consistent with the previous literature. Here we see the effect of natural resources, controlling for institutions, and other variables that affect capital flows. Models 1 and 3 shows agriculture as being a positive determinant of capital inflows. This appears to be the opposite of the resource curse, yet consistent with economic reasoning. Fertile land should not be a deterrent to investment. Models 2 and 4 show that natural resource rents and ores and metals exports do not have a significant coefficient, which means there is no evidence of a curse when controlling for institutions. However, the previous results show that institutions should not be held constant, since agriculture appears to affect them significantly.

5. Conclusions

This paper focuses on the negative indirect effect natural resources have on foreign investment. Economic reasoning suggests that natural resources should have a positive (or at worst, no effect) direct effect on investment. A fertile land or a land of useful minerals and metals should attract more investment than a place with little agriculture or mining potential, all else equal. Our results (Table 10) conclude with some evidence of a positive or insignificant direct effect of natural resources, depending on how natural resources are defined. However, the direct effect may not be an applicable result, since natural resources may affect government policy.

Our results show that natural resources, in particular agriculture abundance, do appear to indirectly affect capital inflows through its effect on institutions. The key institutions that seem to be affected the most by natural resources are property rights and trade freedom. Such a result could have key policy implications. If rich countries want to help the poor countries by teaching and facilitating better agriculture production, they may have to take into consideration the possible detrimental effects that this sector may have on institutions. Institutions have been shown to be one of the most important determinants of investment and economic growth, which means that temporary productivity gains in agriculture may be more than offset by the negative

effects agriculture has on property rights and trade policies. Further research can provide a theoretical model connecting agriculture to institutions to capital flows.

6. Acknowledgment

This study was supported by funds from the Student Undergraduate Research Fellowship (SURF) awarded by the Arkansas Department of Higher Education.

7. References

Alfaro, L., Kalemli-Ozcan, S., Volosovych V., (2008). *Why doesn't capital flow from rich to poor countries? An empirical investigation,* The Review of Economics and Statistics, Vol. 90, no. 2, pp. 347-368.

Baland, J.M., Francois, P., (2000), *Rent-seeking and resource booms*. Journal of Development Economics, Vol.61, pp. 527-542.

Butkiewicz, J.L., Yanikkaya, H., (2010), *Minerals, institutions, openness, and growth: an empirical analysis,* Land Economics, Vol. 86, no. 2, pp. 313-328.

Collier, P., (2010), *The political economy of natural resources,* Social Research, Vol. *77,* No. 4, pp. 1105-1132.

Corden, W.M., Neary, J.P., (1982). *Booming sector and de-industrialisation in a small open economy*, The Economic Journal, Vol. 92, no. 368, pp. 347-68.

Gylfason, T., (2004), *Natural resources and economic growth: from dependence to diversification,* CEPR Discussion Paper No. 4804.

Gylfason, T., Zoega, G., (2006), *Natural resources and economic growth: the role of investment,* World Economy, Vol. 29, no. 8, pp. 1091-1115

Gwartney, J., Lawson, R., (2009), *Economic Freedom of the World 2009 Annual Report*. Vancouver: Fraser Institute.

Haber, S., Menaldo, V., (2010), *Do natural resources fuel authoritarianism? A reappraisal of the resource curse,* Stanford for International Development. Working Paper 351.

Isham, J., Woolcock, M., Pritchett, L., Busby, G., (2005). *The varieties of resource experience: how natural resource export structures affect the political economy of economic growth,* World Bank Economic Review, Vol. 19, no. 2, pp. 141-174.

Lucas, R., (1990), *Why doesn't capital flow from rich to poor countries?,* American Economic Review, Vol. 80, pp. 92-96.

Klein, M., (2005), *Capital account liberalization, institutional quality and economic growth: theory and evidence.* NBER Working Papers 11112, National Bureau of Economic Research, Inc.

Krugman, P., (1987), *The narrow moving band, the dutch disease, and the competitive consequences of mrs. Thatcher*, Journal of Development Economics, Vol. 27 No. 1-2, pp. 41-55.

Matsuyama, K., (1992), *Agricultural productivity, comparative advantage, and economic growth,* The Journal of Economic Theory, Vol. 58, no. 2, pp. 317-334.

Papyrakis, E., Gerlagh. R., (2007), *Resource abundance and economic growth in the United States*, European Economic Review, Vo. 5, no. 4, pp. 1001-1039.

Robinson, J.A., Torvik, R., Verdier, T., (2006), *Political curse of the resource curse,* Journal of Development Economics, Vol. 79, pp. 447-468.

Sachs, J., A. Warner, A., (1995), *Natural resource abundance and economic growth,* NBER Working Paper No. 5398. Cambridge, MA

Sachs, J., Warner., A., (1997), *Natural resource abundance and economic growth.* Revised version. Unpublished manuscript. Harvard Institute for International Development. Cambridge, MA.

Sachs, J., Warner, A., (1999), *The big push, natural resource booms and growth,* Journal of Development Economics, Vol. 59, no. 1, pp. 43-76.

Tornell, A., Lane, P.R., (1999), *The voracity effect.* The American Economic Review, Vol. 89, no. 1, pp. 22-46

Torvik, R., (2002), *Natural resources, rent seeking and welfare.* Journal of Development Economics, Vol. 67, pp. 455-470

Table 1: Key

Variable Name	Description and Source
Agric (% GDP)	Agriculture value added, percentage of GDP. Average from 1970 to 2008. World Bank, World Development Indicators. Agriculture includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production.
Nat Resource (% GDP)	Total natural resources rents (% of GDP). It is the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. Average from 1970 to 2008. World Bank, World Development Indicators.
Agric Exports	Agricultural raw materials exports (% of merchandise exports). Average from 1970 to 2008. World Bank, World Development Indicators.
Ore Met Exports	Ores and metals exports (% of merchandise exports). Average from 1970 to 2008. World Bank, World Development Indicators.
Capital Inflows	Average annual per capita values of FDI and Portfolio Investment from 1970 to 2008. The data are obtained from the International Monetary Fund's (IMF) and IFS. The inflows are in constant 1996 US dollars, and to convert to per capita measures, they are divided by the population in each year. Capital inflows can be negative since they are net of repatriation of capital and repayment of loans.
Institutions	A measure from 0 to 10. Average from 1970-2008. Generally speaking, a higher number represents more economic freedom, stronger property rights, or less government restrictions. This is a composite variable that is taken from the Economic Freedom of the World 2009 Annual Report (Gwartney and Lawson 2009).
Prop Rights	A measure from 0 to 10. Average from 1970-2008. A higher number means more protection of property rights, judicial independence, legal enforcement of contracts, etc. This is a component in the Economic Freedom of the World 2009 Annual Report (Gwartney and Lawson 2009), labeled "Legal Structure and Security of Property Rights."
Trade Freedom	A measure from 0 to 10. Average from 1970-2008. A higher number means fewer restrictions on international trade. This is a component in the Economic Freedom of the World 2009 Annual Report (Gwartney and Lawson 2009), labeled "Freedom to Trade Internationally."
Distance	Distance: Air distance in kilometers to one of the three capital-goods-supplying regions: the US, Western Europe, and Japan, specifically measured as distance from the country's capital city to New York, Rotterdam, or Tokyo. Data obtained from Gallup et al. (1999).
School	Average years of total schooling for those of age 25 and older from years 1970, 1975, 1980, 1985, 1990, 1995, and 2000. Data from Barro and Lee. (2000).
GDP 1970	Natural log of GDP per capita in 1970 in constant 1996 dollars. Obtained from Penn World Tables version 6.1.

Table 2: Capital Inflows and Natural Resources

Dependent Variable: Net Capital Inflows per Capita				
Variable	Model 1	Model 2	Model 3	Model 4
Agric (% GDP)	-8.05***			
	1.06			
Nat Resource (% GDP)		-2.76**		
		1.35		
Agric Exports			-3.81***	
			0.921	
Ore Met Exports				-1.47*
				0.06
_cons	289***	168***	174***	162
	32.3	*21.9*	*21.4*	*20.4*
N	163	166	161	161
r2	0.263	0.023	0.03	0.009
r2_a	0.258	0.017	0.024	0.003
F	57.5	4.21	17.1	3.42

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level. Robust standard errors are used.

In Table 3: Property Rights and Natural Resources

Dependent Variable: Property Rights				
Variable	Model 1	Model 2	Model 3	Model 4
Agric (% GDP)	-0.0589***			
	0.0067			
Nat Resource (% GDP)		-0.0305***		
		0.0102		
Agric Exports			-0.0256***	
			0.0061	
Ore Met Exports				-0.014**
				0.0072
_cons	6.34***	5.49***	5.44***	5.4
	0.186	*0.153*	*0.139*	*0.151*
N	130	132	132	132
r2	0.339	0.055	0.038	0.023

r2_a	0.334	0.048	0.03	0.015
F	76.8	8.87	17.8	3.78

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level. Robust standard errors are used.

Table 4: Trade Freedom and Natural Resources

Dependent Variable: Trade Freedom				
Variable	Model 1	Model 2	Model 3	Model 4
Agric (% GDP)	-0.0545***			
	0.0064			
Nat Resource (% GDP)		0.00107		
		0.0076		
Agric Exports			-0.0136**	
			0.0057	
Ore Met Exports				0.00133
				0.005
_cons	7.11***	6.12***	6.223***	6.11
	0.138	*0.12*	*0.112*	*0.118*
N	130	132	132	132
r2	0.413	0.00011	0.0171	0.00033
r2_a	0.409	-0.00758	0.00953	-0.00736
F	72.4	0.0194	5.77	0.0712

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level. Robust standard errors are used.

Table 5: Institutions and Natural Resources

Dependent Variable: Institutions				
Variable	Model 1	Model 2	Model 3	Model 4
Agric (% GDP)	-0.0327***			
	0.0041			
Nat Resource (% GDP)		-0.0155**		
		0.0079		
Agric Exports			-0.00864**	

			0.0042	
Ore Met Exports				-0.00292
				0.0051
_cons	6.48***	6***	5.95***	5.91
	0.103	*0.0828*	*0.0818*	*0.0866*
N	130	132	132	132
r2	0.293	0.0423	0.0128	0.00295
r2_a	0.287	0.035	0.00526	-0.00472
F	63.3	3.87	4.3	0.329

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level. Robust standard errors are used.

Table 6: Institutions and Capital Inflows

Dependent Variable: Net Capital Inflows per Capita				
Variable	Model 1	Model 2	Model 3	Model 4
Prop Rights	121***			111***
	11.5			13.2
Trade Freedom		105***		20.2
		16.8		13.6
Institutions			151***	
			22.8	
_cons	-486***	-483***	-735***	-552
	53.1	*95.6*	*124*	*71.9*
N	131	131	131	131
r2	0.553	0.285	0.295	0.559
r2_a	0.549	0.28	0.289	0.552
F	111	38.5	43.8	55.2

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level.

Table 7: Property Rights and Capital Inflows

Dependent Variable: Net Capital Inflows per Capita				
Variable	Model 1	Model 2	Model 3	Model 4
Prop Rights	155***	109***	147***	143

	17.7	*41.4*	*49.3*	*99.6*
_cons	-664***	-420*	-623**	-600
	94.5	*219*	*261*	*526*
N	128	130	130	130
r2	0.513	0.546	0.526	0.534
r2_a	0.51	0.542	0.522	0.53
F	76.4	6.91	8.93	2.06

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level.

Table 8: Trade Freedom and Capital Inflows

Dependent Variable: Net Capital Inflows per Capita				
Variable	Model 1	Model 2	Model 3	Model 4
Trade Freedom	168***	2470	301*	-542
	25	*16000*	*180*	*1811*
_cons	-871***	-14961	-1685	3468
	154	*97000*	*1104*	*11000*
N	128	130	130	130
r2				
r2_a				
F	45.1	0.0241	2.78	0.0895

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level.

Table 9: Overall Institutional Quality and Capital Inflows

Dependent Variable: Net Capital Inflows per Capita				
Variable	Model 1	Model 2	Model 3	Model 4
Institutions	286***	202**	449*	-7159
	45.1	*97.2*	*290*	*190000*
_cons	-1532***	-1033*	-2491	42318
	266	*573*	*1711*	*1100000*

N	128	130	130	130
r2				
r2_a				
F	40.3	4.3	2.39	0.00145

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level.

Table 10: Natural Resources and Capital Inflows

Dependent Variable: Net Capital Inflows per Capita				
Variable	Model 1	Model 2	Model 3	Model 4
School	25.5**	20.1**	21.8**	21.3**
	10.8	*9.53*	*9.76*	*9.73*
Distance	-0.0175***	-0.017*	-0.018***	-0.0176***
	0.0062	*0.0062*	*0.0061*	*0.006*
GDP1970	110***	78.2***	78.1***	74.9***
	29.1	*26.2*	*26.4*	*26.7*
Institutions	65.8***	57.2**	58.8**	60.9**
	26	*24.6*	*24.8*	*24.6*
Agric (% GDP)	3.97***			
	1.41			
Nat Resource (% GDP)		-1.46		
		1.63		
Agric Exports			1.56*	
			0.848	
Ore Met Exports				0.223
				0.521
_cons	*-1242***	*-829***	-826***	-839
	265	*224*	*225*	*225*
N	83	86	86	86

r2	0.654	0.636	0.638	0.634
r2_a	0.632	0.614	0.615	0.611
F	18	17.3	18.1	17.1

Standard errors are in italics. *10% significance level, **5% significance level, ***1% significance level. Robust standard errors are used.