

**Growth Medicine and the Sachs-Warnerian Narrative:  
The Development of the 'Resource Curse' in Economic Thought**

by

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## ABSTRACT

### **Growth Medicine and the Sachs-Warnerian Narrative: The Development of the ‘Resource Curse’ in Economic Thought**

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Jeffrey Sachs and Andrew Warner are the forerunners of the highly influential concept of the ‘resource curse’ associating natural resources with poverty. While the ‘resource curse’ has always come under fire in critical circles due to its relentless free trade orientation, recently the econometric basis of the ‘resource curse’ has come under increased scrutiny as several researchers have replicated the empirical work of the renowned analysts with varying outcomes and degrees of critical feedback. Though most researchers begin their replications with Sachs and Warner’s *Natural Resource Abundance and Economic Growth* (1995/1997) this thesis asserts that whether one is interested strictly in the econometric elements or in the ideological foundations such as in this work, a more enlightening point of departure is the authors’ *Economic Reform and the Process of Global Integration* (1995). Considered from the perspective of world-systems analysis, cross-referenced by a review of socio-economic history and ‘thickly’ constructed, a sub-set of Sachs and Warner papers published between 1995 and 2001 are the basis of two main questions: When did natural resource abundance become ‘bad’ for development and why? The evidence calls into question three conduits of intellectual activity: (1) the diagnostic classification of the ‘resource curse’, (2) the recommendations for ‘host’ countries to avoid the ‘resource curse’ and (3) the aim of supra-national leadership to ameliorate the effects of the ‘resource curse’. The examination found that the idea of the ‘resource curse’, embodied as the Sachs-Warnerian narrative, justifies the systemic execution of a competitive double standard in the promotion of economic growth more pointedly for former economic hegemony currently in decline.

Keywords: ‘resource curse’, structuralism and asymmetric power relations, sustainable development, political-environmental studies, economic underdevelopment, economic sovereignty, global thought and governance

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### Introduction

A subject of interest to political and macroeconomists studying the underdevelopment of poor nations is the notion of the so-called 'resource curse'. Formalized by Jeffrey Sachs and Andrew Warner, the resource curse is the empirically demonstrated inverse relationship between natural resource abundance and economic growth. The demonstration implies that natural resources are bad for development because it causes slow growth, or even reverses growth.

While there is an array of explanatory theories for this, the most commonly cited are centered on poor economic policies, low-quality institutions, and incompetent political leadership. Sachs and Warner strongly advocate that a lack of trade openness and a resultant adherence to autarkic policies causes the slow growth characterizing the 'resource curse'. According to Sachs and Warner economic reform is the key to ameliorating the curse of natural resources, particularly trade reform, and for this reason determinations of a 'resource curse' affliction and advised avoidance measures are often colored by globalization aims. This is especially so since Sachs and Warner suggest that free-market non-adherence is not only a poor political decision but it also, consistent with the length of non-adherence, is responsible for persistent poverty and thus strongly advises trade reform as a measurable solution.

These premises and aims in concert with a history of highly-successful resource led-developments has created a great deal of skepticism about the so-called 'resource curse' and had called for the statistical replication of the negative correlation among other critiques that question the legitimacy of the claim.

It is well known that many of today's wealthiest countries developed because of natural resources and to that extent this thesis treats Sachs and Warner's claims that natural resources are bad for development rhetorically. Understanding the origins of the so-called 'resource curse' is critical as the ramifications and implementation of trade reform-based austerity measures are extremely harsh and as is demonstrated in *Economic Reform and the Process of Globalization (1995a)* is also deeply detrimental to growth previously established in subjected economies. The title of this work, *Growth Medicine and the Sachs-Warnerian Narrative: The Development of the 'Resource Curse'* is in keeping with Jeffrey Sach's tendency to refer to poorly developing economies as potentially terminal patients that without strong emergency treatment will continue to remain poor and marginalized. Sachs prescribes austerity measures such as eliminating government-sponsored employment, healthcare, and education in order to jumpstart rapid economic growth resulting from increased attractiveness to wealthy foreign investors. The Sachs-Warnerian Narrative refers to the clear ideological stance that persists throughout their empirical studies as well as the way their stance is structured from paper to paper.

The object of this thesis is to critically analyze and historically orient the rhetoric of the so-called ‘resource curse’ through the following sub-set of Sachs-Warner papers:

*Economic Reform and the Process of Global Integration* (1995a)  
*Natural Resource Abundance and Economic Growth* (1995b)  
*Natural Resource Abundance and Economic Growth* (1997<sub>R</sub>)  
*The Big Push, Natural Resource Booms and Growth* (1999)  
*The Curse of Natural Resources* (2001)

In setting the authors’ rhetoric in its socio-historical context, and drawing upon the works of some of the early development economists, this thesis represents a ‘thickly’ re-contextualization of ideological premises and justifications of the papers, with special attention paid to the policy effects associated with the ‘resource curse’ and economic reform.

While many researchers have taken sub-sets of Sachs and Warner’s papers to task, none begin with *Economic Reform and the Process of Global Integration*. The view that natural resources are bad for development marks a paradigm shift in development economics, as it once was thought that natural resources were in fact a requirement of economic development. It is asserted here that the shift was not as much motivated by unsatisfactory theoretical answers as it was by the highly pressing concerns of political and ideological instability. Whether a researcher seeks to follow the thread of ideology through the ‘resource curse’ as this thesis does, or understand the empirical foundation of the Sachs-Warner result as many of the same critiques are made, a rich place to begin is with *Economic Reform and the Process of Global Integration*. Heinrich (2011:9) does include both *Economic Reform and the Process of Global Integration* (1995a) and

*The Curse of Natural Resources (2001)* in his reference of a Sachs-Warner sub-set, which lends credence to evaluating the continuity of Sachs and Warner's ideas by observing the set as a whole, though the ideas in *Economic Reform* are not explicitly evaluated.

This is especially noteworthy because in general, SW's *Economic Reform and the Process of Global Integration (1995a)*, is not cited among the resource curse literature despite its influence on the theory as an embodiment of the resource curse's free-market rationale and original platform of the 'Barro-style' cross-country regression analysis upon which the Sachs-Warner results are based and through which trade openness was shown to comparatively out perform many other potential growth factors such as human capital and investment.

This thesis differentiates itself from the work of Lederman and Maloney (2001) in that what I refer to as the Sachs-Warner papers commences with *Economic Reform and the Process of Global Integration* rather than *Natural Resource Abundance and Economic Growth (1995)*.

Though it was Auty (1993, 1990) and Gelb (1988) who initially conducted the earliest systematic, comparative analyses of country sub-sets exhibiting counter-theoretical development patterns given an endogenous source of wealth, it was Sachs and Warner (1995b, 1997) whose work, a systemic analysis of those same patterns in a cross-country (N=97) sub-set, is widely cited for its econometric value. Thus the earlier results, embodied in *Economic Reform and the Process of Global Integration*, provides the econometric backbone of the systemic 'resource curse'-characterized poor development patterns.

Since the close reading of the papers relies upon a working understanding of classical international trade and development theory, and the tripartite global environment after World War II, chapters two and four walk the reader through the historical and intellectual background of the ‘resource curse’ and through a presentation of the recent literature which focuses primarily on the political economy of the ‘resource curse’. The analysis of *Economic Reform* was broken up into chapters three and four. Chapter three deals with Sachs and Warner’s modeling of four main premises used to strengthen their ‘resource curse’ assertion. Those premises are that 1.) trade openness leads to increased growth which can reduce poverty through convergence; 2.) the sooner an economy liberalizes, the better off it will be in the long-run; 3.) trade openness is a superior industrial policy and can avert macroeconomic crises; and 4.) growth resulting from inferior industrial is not resilient to shocks and is unsustainable. Chapter four mainly summarizes Sachs and Warner’s view of the tripartite background as it forms the historical basis of the policy claim that the resource curse is the consequence of poor policies and thus can be avoided by adhering to good policies. In this chapter contrarian socio-historical contexts are provided in the footnotes, though the position of the critical analysis should not be taken to indicate a measure of unimportance in this case. The rhetorical analysis of the remaining papers of the selected sub-set is in chapter five. In this chapter the critical analysis is embedded in-line rather than offset. An analytical commentary of the common patterns within the set is presented in chapter six along with a world-systems perspective of the ‘resource curse’. Chapter seven synthesizes and

concludes the analyses of the sub-set, and the qualification of the Sachs-Warnerian narrative. Concluding comments following a summary of Graham Davis's *Replicating Sachs-Warner: The 1997 Working Paper (2012)* finalizes this contribution to the literature.



### **Characterizing The Discourse Environment: A Review of the Literature**

#### Historical Overview

The purpose of this chapter is to review the literature relevant to both the Resource Curse Thesis (RCT) and the ‘resource curse’ concept beginning with an overview of the political-economic climate of post-World War II and the Prebisch-Singer Thesis (PST) to the present day political economy of the resource curse. PST is often held as the theoretical point of departure for studies of the ‘resource curse’ in suggesting that natural resources might be bad for development. Drawn from economic development theory, the RCT stands as an alternative to what was the conventional notion that natural resources are beneficial to the development of a modernizing nation.

#### Economic Development Since World War II

The RCT evolves from a larger economic history commencing with research after the Second World War. In the West, post-war development theories and policies were necessary after Greece, W. Germany, France, Japan and Italy were in varying stages of destruction. In 1944, the 21-day meeting at Bretton Woods instituted the International Monetary Fund (IMF) and, predecessor of World Bank Group, the International Bank for Reconstruction and Development (IBRD) to re-establish the war-torn nations. The organizations were later extended to provide technical assistance and financial aid to assist other nations desiring developmental beginnings. During this formative period and through the late 1980s, the conventional wisdom on resource extraction held that mining was key to the rapid development of a nation from a low-income stage to higher income

stage (Rosser, 2006; Viner 1952 and Lewis, 1955 as cited in Rosser 2006a), as substantiated by the remarkable resource-based development of the Britain, the United States and Australia (Rostow, 1961 as cited in Rosser 2006a). The policy implications of extraction-based development were two-fold.

In the first place, for those countries already rich the implication was that they would better be able to positively sustain their modern economies, while in the second the implication for poorer countries was that they would be able to “generate the foreign exchange, tax revenues and other assets necessary for economic growth and development” (Davis and Tilton, April 2008:29). This began to change around the late 1980s when it was observed that many resource-wealthy countries were not transforming into developed countries per historical expectation. In establishing the observation as a fact and in explaining the underlying mechanisms of the stunted growth many theories have been promoted.

The following section presents this traditional view as the historical context of RCT from the perspective of University of Chicago international trade theorist, Jacob Viner. Considered the “greatest historian of economic thought that ever lived”<sup>1</sup>, Viner had a particularly contentious relationship to the precursor of the RCT. In 1950 what came to be known as the Prebisch-Singer Thesis (PST) presented a highly stimulating alternative to the traditional view, suggesting that declining terms of trade made the development of natural resources bad for an economy in the long-run. Here it should be said that the debate over trends in the terms of trade between primary commodities and manufactured goods, while clearly still active, is much aged. It dates back as far as Adam Smith, who exhorted the gains from trade in opposition to mercantilism, and David

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<sup>1</sup> <http://www.econlib.org/library/Enc/bios/Viner.html>

Ricardo, who in 1817 developed the theory of comparative advantage as a source of gains from trade, was able to show when and how trade is profitable, thereby methodologically supporting Smith. Most famously, Smith, Ricardo, Thomas Malthus and John Stuart Mill, inaugurated the British Classical School of economic thought, which, on terms of trade, held that the terms of trade of primary commodities should actually improve over time. It is from this historical basis that development theory draws influence. Viner was one of the most exacting advocates of the importance of making policy with an eye to the long-run as well as a preeminent and visceral opponent of the Prebisch-Singer Thesis, albeit namely Prebisch's views<sup>2</sup> in that regard.

Viner's nearly 700-page treatise on the theory of international trade, wherein he is aligned with Adam Smith in his own 1776 text *The Wealth of Nations* in refuting the fallacies of mercantilism, is considered one of his greatest works<sup>3</sup>. Viner's "...pioneering" doctoral dissertation, *Canada's Balance of International Indebtedness* (1924), "...set the style for a highly productive series of studies in the working of international financial mechanisms"<sup>4</sup> and from 1928 to 1946 he also served as co-editor of the *Journal of Political Economy*. Due to Jacob Viner's prolificacy, his breadth and depth of knowledge on economic history and theory, and his relationship to the early reception of the RCT, this chapter presenting the historical context for the resource curse

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<sup>2</sup> For qualification see "Gains from Foreign Trade", Viner's third lecture given at the National University of Brazil in the summer of 1950. In it he flatly rejects the proposal as he saw it fatally resting on the intrinsic inferiority of resources used in primary industries relative to similar resources differently used in manufacturing. Viner, Jacob. "International Trade and Economic Development". (1953). Oxford University Press at Clarendon. London. Pp. 34-54.

<sup>3</sup> In 1965, near the end of his life, Viner also wrote a famous 145-page introduction, turned monologue, on Adam Smith for a re-release of John Rae's 1895 biography on the *Life of Adam Smith*.

<sup>4</sup> [http://etcweb.princeton.edu/CampusWWW/Companion/viner\\_jacob.html](http://etcweb.princeton.edu/CampusWWW/Companion/viner_jacob.html)

thesis relies heavily upon his conservative perspective<sup>5</sup>.

### Overviewing Classical International Trade and Development Theory

When he wrote his lecture on the economics of development, Viner lamented that there appeared to be of lack of explicit definition for the term ‘economic development’.

Pondering upon the deficit he asked the question, “...What is an underdeveloped country?” (1953:98). As he proposed it, development theory rested upon *per capita*<sup>6</sup> level estimates to determine underdevelopment in terms of poverty, prosperity, and population quantity; that is, how wealthy is the population per head (1953:98). Assessing the literature of his time, he found that the most common criteria of underdevelopment were (I) a low ratio of population to area; which Viner more specifically qualifies as the presence of ‘empty spaces’ of any size that could support a populous settlement, i.e. good climate, good soil, but was not being used as such, (II) high interest rates indicating a scarcity of capital, (III) the ratio of productive population to total population<sup>7</sup> and (IV) the age of a country e.g. at this time, a young country would have some similar characteristics of being underdeveloped.

For each of these criteria Viner had a respective rebuttal, (i) there are some ‘empty spaces’ that serve no ones interest should they be filled, e.g. the Arctic, Antarctica, the Sahara desert, (ii) high interest rates are not decisive enough to determine

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<sup>5</sup> Viner, Jacob. “International Trade and Economic Development”. (1953). Oxford University Press at Clarendon. London.

<sup>6</sup> In this chapter per capita will be italicized as Viner had it but in the remaining work it will not be.

<sup>7</sup> Viner referred to this as the ratio of “...industrial output to total output or industrial population to total population” (97). He also noted this was the most commonly used criterion for classifying countries as developed or underdeveloped.

scarcity of capital nor does it indicate which of the various modes of scarce capital<sup>8</sup> is acting on the ability to borrow, (iii) the case is likelier that prosperous people industrialize more, rather than, industrious people are more prosperous<sup>9</sup>, and (iv) there is no satisfactory criteria for the age of a country<sup>10</sup> seeing as "...the countries outside Europe with the highest *per capita* income were 'empty spaces' [i.e. underdeveloped] until fairly late in the nineteenth century and some of the 'oldest' countries are the poorest" (97).

Overall Viner found it more useful to define an underdeveloped country as one that had good potential prospects for development but was unable to use its resources (capital, labor, or natural) to support its present population at a higher standard of living or to support a larger population at that same standard<sup>11</sup>. Viner's definition of an underdeveloped country focuses on *per capita* standards rather than aggregate thresholds in practice he deemed them a more appropriate unit for determining underdevelopment. With the term 'underdeveloped' so understood, economic development can be defined as a process of addressing the decrease of poverty, the increase of prosperity, and the management of population quantity relative to the levels of poverty and prosperity, from a *per capita* standpoint. Viner perceived there to be four categories of obstacles to economic development: (1) low productivity functions, i.e. the quality of the resources and the resource base, (2) scarcity of capital, (3) conditions of foreign trade i.e. declining terms of trade, and (4) rapid rate of population increase.

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<sup>8</sup> Low aggregate savings, low rate of savings, low credit status, unimpressive ratio of *per capita* capital in use to *per capita* capital owned countrywide.

<sup>9</sup> In *per capita* terms (97)

<sup>10</sup> "The test of age, as is common, is the date of settlement by people of European stock but by this accounting Brazil is older than the Unites States while neither China nor India was yet born" (97).

<sup>11</sup> More directly, "a more useful definition of an underdeveloped country which has good potential prospects for using more capital or more labor or more available natural resources, or all of these to support its present population on a higher level of living, or, if its *per capita* level of living is already fairly high, to support a larger population on a not lower level of living" (98).

## **[I] Low productivity**

Referring to high productivity criteria, low productivity functions undermine

developmentally amenable conditions such as a high quality labor force, abundant natural inputs, and rapid transport to distant markets. Viner held that high labor productivity was a consequence of the fitness and vitality of the labor force thus the quality of the labor population relied upon a number of factors such as the quality of health, nutrition, and education as well as “historical and cultural factors, from environment, [...] and from the quality of the leadership provided by the government and the social elite” (103).

Believing so much in socially supportive conditions that attended to the literacy, overall health, and nutrition of mass labor, he exclaimed, “In many countries, I feel sure, if this were achieved all else necessary for rapid economic development would come readily and easily of itself”. Further, he understood that when poor conditioning was present, either through weak promotion or general neglect, “it is not necessary to look for other factors [...] to explain pervasive poverty and excessive growth” (103).

Beyond these factors, another input of productivity relates to a nation’s ability to draw on the knowledge-based economy (KBE) in order to acquire current and competitive skills training for its work force. For largely agricultural countries, as many underdeveloped countries are, there is normally a strong resistance to mechanization until “it is made clear that acceptance of the training brings substantial and prompt economic reward” (104). After this phase, the problem remaining is not getting the masses to accept the training but getting trainers to the masses, a problem which would be relieved by knowledge and management importation or least by exporting selected students to return and train the work force. Today, this migration of knowledge is commonplace within the

KBE, but even then it was known that “managerial and engineering ‘know-how’ are the most mobile internationally of economic goods” (104).

### **[III] Scarcity of Capital.**

Viner speaks at some length about the perils of foreign investment and advantages of domestic saving. The obstacle of capital scarcity refers to the inability of a nation to pursue long-term economic development that would provide a high rate of return *per capita* by borrowing investment capital. Some “general tendencies” (106) of the traditional developmental perspective, are that (1) a country utilizing capital is likely to often experience increased economic development relative to the lending country, (2) a country with a higher rate of aggregate savings would suffer less capital scarcity because it is theoretically better able to borrow capital, (3) the greater the inequality in the spread of income, the greater the percentage of aggregate income saved because higher-income earners are presumed to save more annually than lower-income earners, (4) *Per capita*, countries that are low-income will save more slowly<sup>12</sup> but, sparing unmitigated inflation which is “generally held to be an obstacle to private saving” (107), if incomes increase over time so should the annual *per capita* savings. Translated into policy, these general tendencies would collectively foster supportive conditions for encouraging domestic saving. The reward is that with a higher the savings balance the country would more likely use the borrowing capacity to develop “productive facilities, material and human (111), i.e. industry and human capacity.

One of the reasons countries borrow from abroad is to increase their rate of economic development by investing the capital in remunerative activities. Still, Viner felt it was “...not realistic for underdeveloped countries to place major reliance on foreign

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<sup>12</sup> Since the accumulation of capital *per capita* is derived from income *per capita*.

investment in their territories as an aid to their economic development” (110). In his time, the field of foreign investment, a flow already tightened by war losses and substantial taxation, was littered with obstacles for both creditors and debtors alike. The contentious credit environment was characterized by widespread national economic planning, which commonly saw planning governments get themselves into debacles worsened, in the long run, by lending. Add to this, governments were feeling poorer as a result of mounting national debts and few governments even had much experience, still fewer positive ones, with international lending. And still further, the pool of potential lenders was disproportionately small compared to the number of countries seeking credit. Compounded, this meant that the global flow of capital was exceedingly constrained. The agencies established to relieve some of the pressure were themselves so constrained, in range of activity and terms of offer, as to be seen as overly stringent given the post-war conditions under which credit was requested. In Viner’s opinion there were no, “obvious grounds for expectation or hope that existing multinational agencies [...] will make quantitatively important contributions to the international flow of capital” (110).

In Viner’s view there was essentially a global credit crunch in the post-World War II economic environment, in which multinational lending agencies were established to assist but instead ultimately had two impacts, (1) they left borrowing governments dissatisfied, and (2) their straight-jacket ineffectiveness strengthened the position of lending governments who saw themselves in a more advantageous position in that they were not only able to retain national autonomy but in the extent of their lending, could remain highly selective as to who they elected to take on as debtors, and arbitrarily determine the conditions on which they would make credit available to prospects. This is



not to suggest there was a *per se* free-for-all, or rampant frontier mentality. It was understood, then, that there existed limits in the profitability of lending to governments. This was especially so if the capital was used for public expenditure programs and other non-remunerative investments as domestic political and strategic considerations may have necessitated (111).

Still, as far back as Viner's time it was held that, "debtor countries prefer to borrow from governments" (108) and "borrowing from governments seems preferable to borrowing from private capitalists, [while] borrowing from multinational agencies [...] preferable to borrowing from individual governments" (109). This being the case, it would appear that effectively a predatory lending environment was created to the extent that individual governments were fortified in their position to lend, multinational agencies were generally ineffective in offering enough monetary relief or protection from predatory actions. Further, only the most destitute governments would borrow from private capitalists if the option were even available. In sum, large-scale international lending could only be marginally effective in a greater lending environment trending toward predation and access to foreign capital was tied a nation's aggregate savings. In the post-World War II environment the scene of international foreign investment seemed dim and led Viner to conclude, "that foreign capital will make but a marginal contribution to the capital needs of underdeveloped countries" (111).

### **[III] Conditions of Foreign Trade.**

The concept of comparative advantage is a pillar of trade economics since its introduction by Adam Smith and David Ricardo in the early 19<sup>th</sup> century. Normally a country gained from foreign trade by getting "more goods or better goods", than could be produced

domestically with the same quantity of productive resources, in exchange for those products in which the country has a comparative advantage<sup>13</sup> in producing (34). Raul Prebisch theorized that, over time the terms of trade would decline between countries exporting raw materials, who in theory had a comparative advantage in doing so, and that countries exporting finished goods would, over time, outstrip demand for raw materials as demand for finished products increased. Based on the consequence of a secular decline in the terms of trade Prebisch advocated that countries become more self-sufficient. He posited that countries set their long-run industrial aims on manufacturing finished goods rather than merely extracting and trading primary commodities for finished goods for economic stability. Prebisch, and Hans Singer who independently came to the same conclusion that in the long run manufactures would be more valuable than raw materials, suggested that nations with endowments of primary commodities should think more carefully about how to plan their economic growth. Some construed the idea as advice that countries with a comparative advantage in natural resources should not avail themselves of the option for fear of long-run impoverishment, which implied that extraction was therefore bad for development<sup>14</sup>, and by default that the Smith-Ricardo theory of comparative advantage failed to hold for natural resource abundant countries. Essentially heretic speech, the Prebisch-Singer thesis as it came to be called became the subject of a 60-plus year debate still discussed today. Staunchly opposed, the traditional view vis-à-vis Viner held that for at least three reasons such a notion was patently ridiculous:

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<sup>13</sup> Or less comparative disadvantage relative to another producer-exporter of the same good.

<sup>14</sup> And this is where a good deal of resource curse researchers pick-up the argument.

(1) The terms on which a country trades depends on the volume of its offerings relative to the global demand for them and this is dependent on the country's population. This means that if the country's population is greater than or equal to production there is no surplus for trade but if production is greater than the needs of the population then terms of trade are determined by the amount of surplus available to barter with. Any proposed solution that prioritizes economic development would include a check on population (less people, higher surplus, more trade, greater economic development); such being an inherently independent problem for which there remains no easy remedy, (2) Raw materials experience much more volatile pricing during the global business cycle relative to finished goods and thus the solution is boom-time saving in anticipation of the down-cycle, and the third reason was a common critique of the quantitative data supporting Prebisch's thesis, being that it failed to capture the increased superiority in quality of finished commodities over time relative to the persistent quality of raw materials thus the statistical data supporting diminishing terms are irrelevant. While acknowledging that a decline in the commodity terms of trade is generally an unfavorable outcome, Viner held that it was not necessarily associated with a decrease in the material gains or the profitability of foreign trade. More so he asserted the nature of the relationship between natural resources and innovation in that the quality of a finished good is appreciated by innovation, which also often leads to novel goods, whereas only the ability to access raw material is appreciated by innovation but otherwise has no affect on the quality of the resource itself.

#### **[IV] Accelerated Population Increase.**

The rapid rate of population increase is the most difficult category of obstacles to economic development and in the classical view the most important. The assumption here is that wealthier and more educated people have fewer but more productive children who would then contribute to a nation's high level of per capita income thereby expanding the economic prosperity of such a nation. In this way population rate is connected to the earlier discussed issues of capital scarcity and low productivity functions. These high per capita earning individuals and their parents would, in theory, save more and thus increase the aggregate savings against which a nation can borrow foreign capital, if it had to. This capital would then be invested in remunerative enterprises that further develop the national economy. Such is the context within which poverty and population control go hand in hand and leads to the *population paradox*.

As the logic goes, poverty is self-replicating because poverty-reducing factors such as high levels of per capita income and education are too low and it is exactly these factors credited with producing the high-productivity, low-population conditions associated with economic prosperity i.e. more wealth earners<sup>15</sup>, fewer people, and by merit<sup>16</sup>, more to go around. The population paradox characterizes the challenge of attaining wealth from economic development as a narrow region between high *per capita*

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<sup>15</sup> Wealth is a highly specific term referring to accumulation (savings). The individuals who are able to *consistently* save at a high rate, some percentage of their earnings, are those who can strive for wealth. By this measure, wealth does not pertain to those who cannot for any reason including poverty, save consistently, at a high rate, some percentage of their earnings. So "more wealth earners" paradoxically refers to a larger elite class as it is the ability to attain and sustain wealth that demarcates the elite from the non-elite.

<sup>16</sup> Having defined who can actually speak with ownership in a conversation about wealth, the idea of merit among the wealthy refers to the ability to accumulate wealth on accumulated wealth; that is, the true sustenance of wealth. Of the wealthy, those who can truly sustain their wealth merit more as wealth alone indicates a higher education and level of productivity and therefore a higher worth. Akin to price measures, wealth is an indicator of human worth the way price indicates scarcity in the market. A nation's human capital is measured in its wealth or as Mahbub ul Haq, founder of the UNDP human development report supports, "People are the real wealth of a nation." (UNDP HDR 1990:9).

income and mass poverty. That is, a fine balance between an industrious populous and an overpopulating mass. As Viner puts it,

Whatever the opportunities for economic betterment created by technological progress, by the discovery of new natural resources, by economic aid from abroad, and by the removal of foreign trade barriers, they can have as their chief consequence an increase in the number of children who survive to a short and wretched adulthood.

It would be most damaging if the increase in population is mainly the consequence of the application of modern public-health techniques which result in a decrease in infant mortality rates more rapid than the improvement in health conditions at late ages and more rapid than the rate of expansion of opportunities for productive employment.

Lecture on the *Economics of Development* in  
“International Trade and Economic Development”  
(Viner, 1952:118).

Certainly a worse case scenario, population increases are not necessarily synonymous with developmental suicide, in some cases an increase in population may “merely retard economic progress” (118). In the best-case scenario, a healthy, better fed, and better educated, population would have children more able to survive to an industrious and vital adulthood<sup>17</sup>. Since a productive population earns more, economic welfare could be promoted by their increased *per capita* incomes. Viner, seeming to take a turn for ‘nurture’ in the everlasting *nature vs. nurture* debate, stands firm that conditions determine outcome and that the curse of the poor is the condition of their poverty.

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<sup>17</sup> In the best-case scenario the mass population could be regulated and conditioned enough as to be assimilated into the industrious class of prosperity and contribute to the established rate of success. Those already successful merit additional success for their utility in bringing about prosperous assimilation. This incremental march toward overall prosperity is what Ronald Reagan referred to as “rising all boats”.

In sum,

The promotion of general reduction in trade barriers, the freer international movement of capital on reasonable terms, the facilitation of the general diffusion of the world's stock of technical knowledge and skills, these are the major contributions which the more favorably situated countries of the world can make to those less advanced and less prosperous. They are the contributions of the most importance. But they will not suffice. Without genuine co-operation from the countries to be benefited they will not be effective except perhaps in increasing still further the amount of hunger, sickness, premature mortality, and poverty in the world.

Lecture on the *Economics of Development* in "International Trade and Economic Development" (Viner, 1952:119).

The 'resource curse' stems from this broader development context so that many of the trends about poverty, education, wealth, and opportunity are built into empirical analyses as variable assumptions.

### **What is the 'Resource Curse'?**

The term "resource curse" or "natural resource curse" is credited to Richard M. Auty, who in 1993 introduced the phrase with his text, *Sustaining Development in Mineral Economies: The Resource Curse Thesis* (Stevens, 2003:3; Frankel, 2012:3). Generally, the phrase is understood as an explanation for why some resource-rich nations are still impoverished. In this respect, the 'resource curse' largely finds its application in third world countries. Theoretically, the 'resource curse' is a contemporary ideation extending from a misconstrued conception of the Prebisch-Singer Thesis (PST), suggesting that resource extraction should be avoided.

## **II.1 The Prebisch-Singer Thesis**

As stated previously, Raul Prebisch and Hans Singer, independent of each other, established the finding that natural resources could potentially be an impediment to sustained economic development. They both attributed the conclusion to a secular decline in the terms of trade for resource producing countries<sup>18</sup>. Neither Prebisch nor Singer was the first to suggest a decline in the terms of trade for primary products. In fact, also in 1950, Charles Kindleberger published to the same effect<sup>19</sup>.

Prebisch and Singer posited that the decline in the terms of trade was a result of the demand for raw natural resources growing more slowly than the demand for finished products (Graham and Tilton, April 2008<sup>20</sup>). Because volatility was accepted as the nature of international commodity markets and the structure of the global economy is inherently unstable, Prebisch and Singer argued that developing nations relying upon natural resource exports would not be working to their comparative advantage but instead would be operating at serious disadvantage in the long view (Rosser, 2006a). To combat this, both Prebisch and Singer recommended, “that developing countries diversify away from mineral and other primary produce exports” (Prebisch, 1950 and Singer, 1950 as cited in Graham and Tilton, April 2008).

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<sup>18</sup> Terms of Trade: The prices a resource producing country receives for their primary product exports compared with the prices of the finished goods these countries import. ‘Secular’ refers to the time frame in which a market trend operates, long (5-25 years) rather than one year or a few months/weeks.

<sup>19</sup> Given this one would wonder why it was not the Kindleberger-Prebisch-Singer Thesis as all three advised industrialization on the grounds of deteriorating terms of trade over the long-term. A rich source of historical information on the intellectual environment of the Prebisch-era terms of trade discourse is Bethell, Leslie. Ed. “Ideas and Ideologies in 20<sup>th</sup> Century Latin America”. 1996. Cambridge University Press. (236).

<sup>20</sup> Based on 2005 United Nations, Natural Resource Forum, Davis and Tilton paper.

The views of the Prebisch-Singer Thesis were typified as radical not only because they flew in the face of Smith-Ricardian comparative advantage but also because of a more contemporary turn of events in the economic profession. Paul Samuelson had just elevated neoclassical trade theory to “new heights of elegance” by demonstrating how trade could serve as a complete substitute for the migration of labor from country to country. He thus suggested that, “international trade could potentially equalize income among nations”(Bethall, 1996:236). While the basic assumptions of Samuelson’s career making concept were later described as “rigorous” but “unrealistic”, Prebisch and Singer’s “much more realistic” but “less rigorous” views would have to struggle in the shadow of pride-inducing sophistication (Bethall, 1996:236).

Though never upstaging Samuelson, the Prebisch-Singer Thesis eventually caught hold and went on to become highly influential as the basis of policy. The thesis and Prebisch’s own 1964 position as founding Secretary General of the United Nations Conference on Trade and Development (UNCTAD) lent intellectual support for the autocratic policies, specifically of Latin developing nations, in the 1960s and ‘70s. These policies manifested themselves in the form of import substitution industrialization<sup>21</sup> (ISI). Established to help accelerate economic growth and produce a higher standard of living, ISI appeared to do the exact opposite. For this reason it is now explained that, by and large, ISI was a

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<sup>21</sup> A trade policy that advocates substituting domestic products for foreign imports as away to develop in-state industry and develop stability within the internal economy by making it less susceptible to global depressions and other international price shocks. Mechanistically, the state nationalizes the resources, subsidizes its industries such that they could get a toe-hold and gather strength in a protected environment building prior to introduction to the competitive market. Additionally, high import taxes are levied so as to give home-grown industry a chance, this is especially what liberalization objects to. Still, self-sufficiency through “...a deliberate national policy of high tariff protection” was critical to the economic success of the United States (Viner, 1953:116).



disappointment. The policy was subsequently abandoned during the 1980s and '90s (Graham and Tilton, 2005). The overall failure of ISI and the causes are still the subject of debate, though notably a key feature of Latin American ISI was the nationalization of the domestic mining industry. As ISI was rejected the influence of the Prebisch-Singer Thesis began to wane<sup>22</sup>.

## II.2 The Subsumption of PST

Nonetheless, at the height of its influence the Prebisch-Singer Thesis inspired a significant debate as some researchers disagreed on whether or not the idea of declining terms of trade would hold over the long term. The disagreement further spawned questions regarding possible causes of the decline and the implications for public policy (Cuddleton, et. al (2007), and Hadass and Williamson, (2002) as cited in Graham and Tilton, April 2005; Stevens, 2003). The evolution of these inquiries led to still another question. Was the decline in terms of trade bad for development? If assumed true, then as natural resource abundance encouraged mining, it would eventually lead to slow development, and as the terms of trade for the raw material diminished extraction would ultimately be counter-productive for development. Hence, mining is bad for development. Prebisch and Singer thought it was plausible thusly suggesting that developing nations think more carefully about mineral production since reliance upon extraction alone would

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<sup>22</sup> While PST did not upend the convention that natural resources are good for development, it remains a formidable alternative still being batted about today especially with the onset of China as a global economic power. See: Kaplinsky, Raphael. "Revisiting the Revisited Terms of Trade: Will China make a Difference". (2006). *World Development*. Vol. 4. No. 6. Pp. 981-995; Mollick, A.V. et al. "Can Globalisation Stop the Decline in Commodities' Terms of Trade? The Prebisch-Singer Hypothesis Revisited. November 2005. <<http://econpapers.repec.org/paper/ukcukcedp/0510.htm>>. ; Maizel, A., Palaskas, T., and Crow, T. (1998) "The Prebisch-Singer hypothesis revisited," in D. Sapsford and J.R. Chen (Eds.) *Development Economics and Policy: the conference volume to celebrate the 85<sup>th</sup> anniversary of Sir Hans Singer*. New York. St. Martin's Press.

eventually lead to slow development.

The extreme implication of PST marks the beginning of the RCT as later researchers picked up the thread and began to ask if indeed resources are bad for development (Rosser, 2006a; Graham and Tilton, April 2005). The nucleus of the RCT is the statistical formalization of observation poor economic growth despite abundant natural resources, which produced a negative correlation between proxies<sup>23</sup> for natural resource abundance and economic development. Sachs and Warner (1995b), using share of primary commodity exports in GDP as a proxy for resource abundance, were the first to make this statistical observation from a comprehensive data set and since then several replicate studies have produced the same results (Leite and Weidmann, 1999; Gylfason, et al., 1999).

In sum, the conventional wisdom of the early 20<sup>th</sup> century supporting natural resources as a developmental requirement held sway from the late forties through the early 1980s (Viner, 1952; Lewis, 1955; Rostow, 1961; Drake, 1972; Balassa, 1980; Krueger, 1980; as cited in Rosser 2006a). Still, during that time alternative views were being developed in a set of ideas Paul Krugman (2005) refers to as ‘high development theory’ which includes Rosenstein-Rodan (1943, 1961), Hirschman (1958), Myrdal (1957), and Fleming (1954), as well as the Prebisch-Singer Thesis (PST), which eventually gained influence especially through the 60s, 70s and the early 1980s.

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<sup>23</sup> The proxies for resource abundance can often be case-based but in general researchers have used export-based measures such as natural resource exports to GDP or natural resource exports to total exports. But production and reserve levels as opposed to resource exports (Stijns, 2001), percentage of rents in government revenues rather than levels of resource exports (Herb, 2003), level of natural resource stock per capita (De Soysa, 2000) have been used along with labor force in the primary sector (Gylfason et al., 1999) and crop land per capita (Auty, 2001). “Measures for development performance include average GNP per capita and improved social indicators i.e. infant mortality, life expectancy, calorie supply per capita and the UN Human Development Index (HDI)” (Rosser, 2006a).

Though the command of PST began to weaken by the late 1980s as its practical justification, import substitution industrialization (ISI), was abandoned; the space of the alternative view was not to be recaptured by the convention. Instead, the Resource Curse Thesis (RCT) had been developing from the late 1980s through the very early 2000s; on the premise that indeed, natural resources may be problematic for economic development (Gelb and Associates, 1988; Auty, 1993; Sachs and Warner, 1995; Leite and Weidmann, 1999; Gylfason, et al., 1999; Sirraf and Jiwani, 2001; *Isham* et al., 2002; *Eifert* et al., 2003; *Davis* et al., 2003; Sala-i-Martin and Subramanian, 2003; Bannon and Collier, 2003; Rosser, 2006a). From this perspective, PST was subsumed under RCT as one idea (declining terms of trade) in a suite of related ‘poor development’ explanations. Now considered a statistical regularity, the observation behind the ‘resource curse’, embodies the continuation of an academic shift away from the idea that natural resources are good for national development and toward the conceptualization that natural resources are bad for national development. In this way the current discourse departs from PST and begins to draw influence from causal theories developed in the discipline of political economy.

The RCT is decidedly distinct from the ‘resource curse’ in the sense that developmental economics and political economy are themselves distinctly different. Throughout this paper references to RCT indicate developmental economic commentary while the ‘resource curse’ indicates political-economic commentary. It may also help to characterize the current discourse environment by highlighting common avenues of discourse and the myriad backgrounds of the

research participants.

## **Introduction to the Literature Review**

### **2.1 Characterizing the Current Discourse Environment**

Today economic development is increasingly associated with the relationship between conflict and natural resources. The ‘resource curse’ is a sub-topic in an ongoing discourse about conflict, resources, and security. It is the subject of extensive discourse in academic settings and increasingly so by the popular press which indicates a widespread relevance. Key aspects of globalization, such as international governance and investment, continue to stimulate attention toward the many theories and policies of resource conflict (McNeish, 2011). Stability has been an international concern of grave significance since the end of the Cold War, coloring concern for extractive economies in the global south in the interests of global security. The ‘resource curse’ audience is characterized by the international participation of policy, development, and academic, professionals as well as a readership of educated and/or politically appreciative news media consumers. Taxonomically, research on the practice and theory derived of the RCT is largely found in journals dedicated to both developmental and macroeconomics; political science; international affairs; conflict resolution; international peacekeeping and governance; human ecology; geography; ethnography; societies and dynamism; international security; and comparative politics.

Institutional actors have authored industry reports, working analyses, and

background papers in lending their expertise and observations, primarily, to the larger scholarship but distantly to the popular discourse as well. Institutions such as: World Bank, IMF, National Bureau of Economic Research (NBER), Chr. Michelsen Institute (CMI), Global Witness, IWGIA: Copenhagen/ Swiss National Centre of Competence in Research North-South, NACLA Report on the Americas, International Institute for Strategic Studies (IISS), Ralph Bunche Institute for International Studies, Fridtjof Nansen Foundation, IDS, World Watch Institute, and Price Waterhouse Coopers. The ‘resource curse’ is also increasingly a subject addressed in print and online editions of the popular presses such as New York Times, CNN, Foreign Affairs, Financial Times, and many African continental publications. The following section addresses the literature directly and outlines major topics in the form of plenaries.

## 2.2 Organizing the Written Discourse

The RCT is based on a statistical observation of negative correlation between the factors of natural resource abundance and economic development. This is not proof of a causal relationship between these two factors. While every researcher acknowledges this statistical law, and therefore recognizes the “inconclusive nature of the evidence in support of the notion of the Resource Curse” (Rosser, 2006a:13; McNeish, 2010), the idea that natural resource abundance leads to the retardation of economic growth and development (Rosser, 2006a; Davis and Tilton, April 2005) is still a wide spread assumption.

Since, tenably, the development of policy recommendations to alleviate

the resource curse can be construed as an argument in favor of the notion of a resource curse, those researchers so engaged, “have merely inferred causality from the evidence of correlation” (Rosser, 2006a:12). Be that as it may, the acceptance of the notion now supports a very active research frontier on the political economy of the resource curse i.e. causation. The difference between the questions: are resources bad for development and why are resources bad for development identifies a taxonomic cleavage in the resource curse literature separating econometric studies from causal political economy studies.

Comprehensive reviews of the ‘resource curse’ will generally cover both econometric and political economic perspectives. This work presents the overall categorization of the literature in four sections: one addressing macroeconomic issues and three involving topics in the political economy of the ‘resource curse’. Researchers who question the statistical validity of the resource curse form another enclave of investigators (Melndalo, 2010; Stijins, 2001; and Herb, 2003). The causal explanations most attributed to the resource curse are: declining terms of trade (PST), volatile markets, income inequality, ‘Dutch Disease’, the nature of mining and rent-seeking behavior. There is a significant amount of overlap between these literatures and suggested causes, creating scholarly outgrowths even further subordinated to those listed. Several authors have written general reviews on the resource curse (Rosser, 2006a; Heinrich, 2011; Frankel, 2010; Frankel, 2012; McNeish, 2011; Cramsey, 2008; Jones, 2008; Hallum, 2011; Wenar, 2008; Vinuales, 2011). Like all scholarly subject matter, inquiries and analysis are framed in the context of disciplinary frameworks. The following

section describes the perspectives currently used to evaluate the resource curse.

### **2.3 Analytical Perspectives of the Political Economy of the ‘Resource Curse’**

The interdisciplinary nature of the ‘resource curse’ informs several perspectives currently in use by political economists and other causal analysts. The frameworks and theories of economics, political science, sociology and cultural anthropology, among others, lend contextual influence to namely, the behaviorist, rational actor, state-centric, historico-structuralist, social capital, and radical perspectives.

[I] The behaviorist perspective, typically captured by arguments citing myopia, laziness, or hyper-optimism as side-effects of resource discoveries, suggest that resource abundance induces irrational behavior i.e. emotional behavior in the national leadership. This behavior in concert with professional incompetence is said to contribute to poor policy making and diminished institutional quality. Many times it is this perspective that appears in the popular press.

[II] Perspectives centered on the ‘rational actor’, a kind of behaviorism, suggest that political actors are rational utility maximizing individuals who will make decisions that yield them maximum personal benefit. Theories on rent-seeking and rent-seizing are especially at home in this perspective because weak state structures offer opportunities to profit personally from resource abundance as opposed to stewarding wealth into national development. Robinson et al., (2006) explains that this lack of national stewardship is further exacerbated by the temporary nature of the resource boom, which focuses rent-maximizing efforts to

capitalize in the short-term. It is reasoned that the perception of the security of a leader's power alters this short-run behavior, in that the long-run management of the resource becomes leverage in retaining power through the continuous flow of rents (Robinson et al., 2006). While this perspective seems to focus on political actors Torvik (2002) has found social actors i.e. entrepreneurs, culpable as well, arguing that social actors can gain rewards from rent-seeking, and this in turn incentivizes their participation in rent-seeking behavior. One of the differences between statist and behaviorist perspectives is that on the one hand, the statist perspective infers developmental sloth as a result of its distributive, rather than its industrialization habits, and on the other, the behaviorist perspective is explicit in its professional assessment.

[III] Statist perspectives, most associated with what is termed the 'rentier' state, suggest that resource abundance redirects a state's capacity from the promotion of income-yielding activities to benefit disbursement. Essentially because the main source of income for these states is largely unearned i.e. in the form of export taxes and production royalties, the capacity built is not in profit-creating activities such as industry but is instead focused on domestic service spending, i.e. productive functions such as social welfare, education, and health. While as explained earlier via Viner these functions are considered necessary to economic development and prosperity, this perspective suggests that the problem arises when resource extraction dominates a nation's economy at the same time as the nation is determining its institutional structures and articulations. This potentially leads to the institutionalization of distributive policies rather than



policies of positive economic development. This perspective also fields the idea that in developing countries resource abundance leads to ‘bad governance’ because financial autonomy equates to low citizen accountability (Moore, 2000; 2004 as cited in Rosser, 2006a).

[IV] The effect of resource abundance on the asymmetric power of different social classes is addressed part and parcel of the historico-structuralist perspective. Here the logic is that the existing wealthy business class, positioned to capitalize on resource abundance, lobbies government to pursue self-serving economic policies contrary to the larger populous interest. This elite activity undermines social cohesion of the masses complicating management choices in the face of economic shocks. Connected to this perspective is the [V] social capital perspective, which associates historico-structuralist social tensions to the relative accessibility of resources and who by i.e. those concentrated in particular locations or diffuse over large geographic expanses; by political elite or by rebel groups. The key difference between the historico-structuralist and the social capital perspectives is that the former emphasizes the role of social groups and socio-economic structure while the latter emphasizes the degree of social cohesion among social groups.

[VI] The radical perspective emphasizes the role of foreign actors as central to the global structure of power. Natural resources are critical assets and empower its owners in two ways: (1) established global powers can maintain their dominance but (2) such resources can be a powerful means of independent development for poor nations who can cooperate with each other. Absent

cooperation in the way of knowledge-sharing and support, developmentally poor, resource rich nations sit as targets “for forced incorporation into the global capitalist system” (Rosser, 2006a:17) that will continue to subordinate their own interests to the whims of competition. Dependency theorists suggest that the social actors of wealthy countries benefit from the corrupt and economically damaging activities led by governments loyal to the dominant powers (Rosser, 2006a).

#### **2.4 Sub-Corpus I: Macroeconomic Performance**

Beginning in the late 1980's through 2001 with Richard Auty, Alan Gelb, Jeffrey Sachs, and Andrew Warner, the sub-corpus on the resource curse and economic performance is the earliest. Their consolidated work product embodies both case-by-case and cross-country analyses, collectively establishing and continuing to incite econometric research into the resource curse on the basis that “mineral exporting developing countries suffered from poor economic performance” (Davis and Tilton, April 2005). Some of the causal explanations most closely aligned with economic performance have to do with volatile markets, the ‘Dutch Disease’ and declining terms of trade, which is now synonymous with the Prebisch-Singer Thesis previously discussed in detail.

The premise of the ‘volatile market’ i.e. volatile prices of natural resources, suggests that the international markets for primary products, including mineral commodities, are notoriously unstable as a result of the global business cycle. Simply put, a resource-dependent nation chasing the value of their primary

commodity exports around an erratic global business cycle would seem to have a difficult time pursuing “efficient and consistent development policies” (Davis and Tilton, April 2005:30). A more diversified export economy would be less vulnerable to the volatility of the global market because not all exports are destabilized in the same way, at the same time during a recession; so the effects of cyclical contraction would be staggered. An economy effectively dependent on few or even a single export would have little fallback and be unable to benefit from the relative balancing effect that a diverse export stagger can offer.

The ‘Dutch Disease’, mainstreamed into thought by W.M. Corden and J.P. Neary (1982) describes a relationship between natural resource exploitation and a reduction in a nation’s manufacturing sector as a result of inflation. In their words, the ‘Dutch Disease’ is a “phenomenon whereby a boom in one traded goods sector squeezes profitability from other traded goods sectors, both by bidding resources away from them and by placing upward pressure on the exchange rate”. As the premise goes, when resource deposits are sited, structural adjustments must be made to capture the wealth inherent in the discovery; this normally takes the form of offering higher wages to attract new labor. The empirical consequence is two-fold: (1) established domestic industries suffer a loss in labor and the manufacturing sector shrinks as a result of lessened competitiveness with foreign production and (2) The influx of foreign currency from the global price of the resource catalyzes inflation, which makes the purchase of domestic products by other nations more expensive and again reduces the competitiveness of domestic manufacturing sectors. Similar effects of ‘Dutch

Disease'<sup>24</sup> can be found in the third world as a result of foreign aid, which acts as an additional source of non-domestic currency.

The relationship between the 'Dutch Disease' and the Prebisch-Singer Thesis (declining terms of trade) would seem to be such that 'Dutch Disease' affects the manufacturing sector over a relatively short time horizon whereas PST affects the extractive sector over a much longer period of time. Sixty-plus years after the introduction of the Prebisch-Singer Thesis, researchers are still unsure if terms of trade actually have declined over time (Davis and Tilton, April 2005:29) while the 'Dutch Disease' can either be identified or not evidenced by datasets spanning 30 years<sup>25</sup>. Time aside, both these causal determinants of the 'resource curse' share a mode of difficulty in adapting to inflation.

## **2.5 Sub-Corpus II: Socio-economic Challenges of Resource Booms**

Beyond the macroeconomic features of the performance literature are socio-economic aspects of development. The process of economic development is intricate, expansive, and reaching well past commercial market exchange and financial and business relationships. The socio-economic aspects of extraction and economic development underline the causal explanations of income inequality, the nature of mining, and rent-seeking behavior. Collectively, these social aspects

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<sup>24</sup> Additional information on 'Dutch Disease' can be found in Corden's 1984 survey. Corden, W. M. "Booming Sector and Dutch Disease Economics: Survey and Consolidation" (Nov., 1984). *Oxford Economic Papers*. New Series. Vol. 36, No. 3 pp. 359-380. Also, the literary foray into its foreign aid-based effectuation is at present more connected to political economy.

<sup>25</sup> Bjørnland (1998) shows the effect of North Sea oil on manufacturing sectors in the UK and Norway using a dataset spanning 1970-1990. Bjørnland, H. "The Economic Effects of North Sea Oil on the Manufacturing Sector". *Scottish Journal of Political Economy*. Vol. 45. Iss. 5. pp. 553-585.

punctuate a governance picture of circumstance and consequence.

Leamer, et al., (1999:25) found that “income inequality is tied to endowments via the economic structure they engender” and Davis and Tilton (April 2005:30) noted that there is weak evidence to suggest mineral extraction increases income inequality in the domestic economy. Presumably, this evidence more so refers to an inequality of income across regions of a country (horizontal inequality) since as Ross (2007:238) points out, “...surprisingly little is known about the relationship between mineral wealth and vertical [between rich and poor] income inequality” (*bracketed definition added*) and that “...data on income inequality is missing for most of the world’s oil-dependent countries”. The implication for the benefits of accountability and transparency, largely attributed to democracy, come to the forefront as Ross (2007:238) continues on to highlight the fact that there is a “...strong *negative* correlation between a country’s dependence on mineral rents and the amount of data we have about its inequality levels”. The evinced presumption is further supported by Power, who claimed that, “the high wages and rents associated with mining can also exacerbate income inequality within a country, increasing social conflict and political instability” (2002:6). Taken together, greater income inequality is generally dissatisfactory for the poor but can also slow subsequent economic growth through increased horizontal inequality. Here, it should be said that while Ross’s statements refer more so to a lack of evidence, a connection is conceivable between missing inequality data and a push for accountability and transparency if it can be said that the actions leading to inequality is supported by obfuscated or

even clandestine machinations i.e. rent misappropriation and capital flight. In resource-rich environments, key actors often have an interest in secrecy. Governments may want to hide figures on natural resource and other revenues in order to maximize their bargaining power vis-à-vis foreign investors, while firms may have a similar interest since their market position may deteriorate if they “publish what they pay” while other companies do not (McNeish, 2010).

Indeed, as a topic of discussion, the nature of mining is rife with moral contention. The decision to take an extraction-based pathway to development is not one to be taken lightly as the consequences exceed purely economic concerns. Some researchers such as are of the mind that the extraction of natural resources offers a developing nation a ‘big push’ toward modernization, an idea initially developed by Paul Rosenstein-Rodan in 1943 and further supported by Ragnar Nurske and Kurt Mandlebaum. Walt Rostow’s second stage of growth<sup>26</sup>, relying upon external demand for raw materials as a “precondition for take-off”, especially supports the extractive development notion and is closely aligned with the conventional perspective on natural resources as presented by Viner in support of Ricardo’s comparative advantage. Even still, Power (2002) suggests that the socio-environmental costs associated with mining may be too high for an underdeveloped nation to bear. The literature addressing the nature of mining is typically associated with the argument that mining is an enclave activity yielding little beyond a share of the rent to the local economy from where the resource is extracted; and that the bulk of the wealth is sent off-shore to service debt and capital investments made by exogenous extraction firms (Davis and Tilton,

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<sup>26</sup> <https://www.mtholyoke.edu/acad/intrel/ipe/rostow.htm>

2005:239).

While few would dispute that, “most of the rents realized by the country flow elsewhere” the enclave argument is combatted by studies of mining regions which show that wages and domestic expenditures have a significant multiplier effect on the local economy and that mining often does promote domestic industrialization through the promotion of downstream and upstream linkages in the supply chain (Ahammad and Clements, 1999; Aroca, 2001; Clements and Johnson, 2000; Clements and Greig, 1994; Stilwell *et al.*, 2000; and de Ferranti *et al.*, 2002 as cited in Davis and Tilton, 2005:239).

Rent distribution aside, mining has a number of environmental ramifications that are not so easily combatted once committed. For instance, extraction sites, and very often the areas surrounding them, reveal the intensity of land, water and air exploitation. It is not uncommon to find persistent environmental degradation. There are socio-economic problems attendant to livelihoods based on non-renewable resources. Many times high-unemployment, low-education or even ghost towns are the forms of social degradation associated with natural resource extraction. Because mining projects “...necessarily deplete the mineral deposits they extract” (Power, 2002:6), the jobs established last for an economically determined period of time and are especially unstable. Indeed, the efficiency of extractive technology has, “steadily reduced the labor requirements per unit of output” (Power, 2002:6), therein reducing local opportunities for mining-related occupation. These issues are further intensified when mining takes place in institutionally vulnerable locations such as the global south. In this

context, “the non-renewable resource wealth tends to be squandered, the level of social conflict increases, and nearly irreparable damage is inflicted on the environment...[potentially] leaving a developing nation permanently poorer” (Power, 2002:6) *brackets added*. Ultimately mining is part of a complex pattern of institutional, technological, and corporate development (Power, 2002:32).

Sociologist Andrew Schrank<sup>27</sup>, takes an intriguing perspective on the historic basis of the nature of mining being the values and mores of extractive innovations. He finds that “Factor endowments are not destiny. Social-property relations are” (Schrank, unpublished paper:30). Differentiating between capitalist property relations and pre-capitalist property relations, Schrank claims that capitalist property relations i.e. private ownership, lent itself innovation and economic growth on pain of bankruptcy, dispossession, and the perils of unemployment while property held in common held no such risk for one individual. The ‘resource curse’, is one of the most contentious and immediately relevant paradigm shifts in development economics since the abolition of chattel slavery. The spread of capitalist property relations requires some form of singular ownership, which historically leads to asymmetric power relations. Schrank further explains that the deep poverty associated with the myriad forms of peasant proprietorship, such as slavery, feudalism, and sharecropping are only able to foster the perpetuation of underdevelopment as poor societies export resources to ameliorate poverty in the short-run rather than consume those resources

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<sup>27</sup> Schrank, Andrew. “Reconsidering the “Resource Curse”: Sociological Analysis versus Ecological Determinism”. University of New Mexico. Dept. of Sociology. (unpublished paper).

<sup>36</sup> Wenar, Leif. “Property Rights and the Resource Curse”. *Philosophy & Public Affairs*. Vol. 36. No.1. (2008). Pp. 2-32.



establishing industrial sectors in the long-run. Short-run thinking encourages the export of natural resources but not development and this leads to “nothing more than extensive growth” (Schrank, unpublished paper:3). Leif Wenar<sup>28</sup> also discusses the ‘resource curse’ in terms of property relations. He posits that the authoritarian graft of a people’s natural resources is a failure of international property law enforcement. While this may be true, the power-concentrating forces of globalization greatly affect the development and exercise of international law for the benefit of the world and the international community.

Many of the issues involving the nature of mining in third world environments fall under the categories of regime dynamics and institutional quality with implications for, and very often culminating, in civil war.

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## **2.6a Sub-Corpus III: Political Economy I** *Regime Dynamics and Institutional Quality*

“Help[ing] countries develop and reduce poverty” is the goal of the international community who not only recognize that “...mineral wealth provides developing countries with opportunities” but also that “good policy can foster the conditions needed...” (Davis and Tilton, April 2005:32) *Brackets added.*

While the corpus on the resource curse has been expanded from a largely econometric topic of study to include several political economy interests such as: regime type (Wentcheckon, 1999; Ross, 2001a pg32); institutional quality (Rodrik et al., 2002; Mehlum, et al., 2006; Andersen and Aslaksen, 2008; Kolstad, 2007; Bakwena, et al., 2009), corruption (Leite and Wideman, 1999); and civil war (Collier and Hoeffler: 1998, 2002; and Ballentine, 2003), the evolution in scholarship leading to these investigations arose through the acceptance of the resource curse, and a search for its causal mechanisms. Eventually a consensus emerged among analysts that, “various political and social variables mediate the relationship between natural resource wealth and development outcomes” (Rosser, 2006a:7). This consensus further encouraged a targeted search for those variables specifically.

The sub-literature encompassing regime dynamics and institutional quality suggests that when it comes to commerce and natural resources, and therefore the acquisition and distribution of the fruits of resource-based commerce, a geographically and legally secure environment is a developmental imperative, in

other words, “institutions trump everything else” (Rodrik et al., 2002; Mehlum, et al., 2006; Andersen and Aslaksen, 2006; Caselli, 2006; Kolstad, 2007; Caselli and Cunningham, 2009; and Bakwena, et al., 2009)<sup>29</sup>.

Commonly used proxies for institutional quality are the International Country Risk Guide's (ICRG)<sup>30</sup> political risk indicator and the Journal of Foreign Policy's Failed States Index (FSI) but McNiesh (2010:17) highlights that these indicators, “rely on subjective expert interpretation of country risk components and have not been designed for comparative research purposes”. In fact, ICRG is designed “to meet the needs of clients for an in-depth and exhaustively researched analysis of the potential risks to international business operations” and is “used by institutional investors, banks, multinational corporations, importers, exporters, foreign exchange traders, shipping concerns, and a multitude of others”. Additionally, Fund for Peace (FFP), the producers of the Failed States Index<sup>31</sup>, cite as part of their methodological rationale, the challenge to the international community that the crises of weak and failing states pose in generally creating a ‘complex humanitarian emergency’, be it ethnic conflict, civil war, revolution, “all of these conflicts stem from social, economic, and political pressures that have not been managed by professional, legitimate, and representative state institutions”.

The expansion of democratic ideology throughout the third world seeks to secure property rights and rule of law as the unshakable tenets that have helped to

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<sup>29</sup> Advised reading on institutional quality and economic integration. Rodrik, D., Arvind Subramanian, and Francesco Trebbi. “Institutions Rule: The Primacy of Institutions Over Geography and Integration in Economic Development”. *NBER Working Paper Series*. No. 9305. October 2002.

<sup>30</sup> [http://www.prsgroup.com/ICRG\\_methodology.aspx](http://www.prsgroup.com/ICRG_methodology.aspx)

<sup>31</sup> <http://ffp.statesindex.org/methodology>

establish the level of wealth experienced by first world nations. Veritably, economic development includes the development of political and social institutions, cultural values, public infrastructure, and human capital, as well as the effective protection of the environment (Power, 32). But while sustainability and environmental protection, in terms of renewable and non-renewable resources are of reportable concern to the international community<sup>32</sup>, such notions may fall short of immediate relevance on the pressing to-do list of a developing nation. As McNiesh (2010:17) points out,

The distinction between renewable and non-renewable resources is demonstrated to be at once relevant as an abstract scientific categorisation and irrelevant to the way in which people on an everyday basis view natural resources. Whilst macroeconomic stability and transparent institutions might be widely seen as desirable outcomes, the desperation and poverty of the everyday may mean that as goals they are correctly prioritized by responsible governments in the global south below immediate goals of emancipation and immediate forms of assistance.

*“Rethinking Resource Conflict”* as World Development Report 2011 for CMI Norway (McNeish, 2010:17).

Like Power, McNiesh still does advocate an interdisciplinary approach to natural resource-related issues such as governance and social wellbeing explaining that,

Whilst the questions of renewability remain important for sustainable governance, recognition of this ontological holism makes it also self-evident that when considering policy initiatives and mechanisms for resource governance there should be some level of cross fertilization between what

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<sup>32</sup> <http://hdr.undp.org/en/reports/global/hdr2011/summary/>

have until now been held separate fields of study. Questions of revenue flows and corporate responsibility are just as important to the issue of illegal logging, as participation and rights are to the governance of hydrocarbon and mining rents. “*Rethinking Resource Conflict*” as World Development Report 2011 for CMI Norway (McNeish, 2010:17).

For these reasons researchers are finding that research on regime dynamics and institutional quality must move beyond the economy, and the normative formalities of what a state *ought* to look like or how it *ought* to be run, to the relationships that exist between these structures and the population. The histories of economic and social development reveal that as a result of incomplete processes of colonial government and the fluctuating influence of globalization, notions of state, market and law can frequently be distant and distinct to those of European ideals (McNeish, 2010:18). That is to say independence movements disrupted full institutional colonialization leaving behind broken but ‘free’ former territories stuck between what they once knew, what they have become accustomed to, and grappling with what now to do. Doubtless, a complex position that can hardly be understood from only a bird’s eye view as the econometric approaches so well address. Instead a socialized approach, rather than a quantitative macroeconomic one, is more likely to reveal the “differing, and often contrasting languages of stateness and legality that compete and interact over long periods of time to define the state through dialectics of cultural struggle” (McNeish, 2010:18).

## **2.6b Sub-Corpus IV: Political Economy II** *Conflict and Civil War*

Although at times naturally occurring, civil war is generally a great agitator, particularly to African cooperation on all scales, from province to continent. Ultimately the mediating relations between regime dynamics, institutional quality, and civil wars are highly interconnected. At least two inter-relational dynamics are plausible: [1] Regimes are co-opted or created by civil war combatants, foreign and domestic, who affect institutional quality either in its absence or its support of their interests, and [2] pre-existing civil wars are agitated by the discovery of natural resources in sites where there may have previously been lesser interests in the area, if any, by the actors the resources attract. This attraction leads to an examination of the current political regimes that they may institutionally support emergent economic interests. Humphreys (2005:535) sheds light on the matter stating, “outside actors are *prone* to one-sided engagement in natural resource conflicts, directly or indirectly, and sometimes inducing regime change and producing deadly effects” and such dynamics create ‘the enabling environment for the economy of war’ McNeish (2010:7). Explanations for the causes of civil war often cite either greed or grievance.

Greed is the most popular of the views with Collier (1999:8) arguing that “the true causes of much civil war are not the loud discourses of grievance but the silent force of greed” and that this is found in understanding the underlying economic agenda, which is concealed<sup>33</sup> out of necessity. In fact, Humphreys (2005) aptly points out and elaborates upon the 6 families of mechanisms linking

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<sup>33</sup> Refer to: Humphreys, M. “Natural Resources, Conflict, and Conflict Resolution: Uncovering the Mechanisms”. *Journal of Conflict Resolution*. 49(3). August 2005.

natural resource and war onset, and 7 families of mechanisms linking natural resources and war duration. Clearly, with even a minimum level of recombination the causes of resource-associated civil wars make for a complex assignment. Although Collier's findings underlying the greed thesis are widely cited, Ballentine and Nitzchke (2005:4) suggest the thesis is limited in that [I] inferring from statistical correlations whether individuals are motivated by greed or grievance is risky because incentives are subject to change as the bearings of conflict alter course over time; [II] that theories of rebellion often focus disproportionately on rebels and less on the equal role of the institution and state-actor in causing or prolonging conflict therein presenting fewer dimensions of conflict onset; [III] that insurgencies which are in actuality about entrepreneurship i.e. criminal enterprises, should be differentiated from political grievances in order to preserve opportunities for diplomatic recourse; [IV] that governance failures mediate opportunity for rebellion by creating conditions conducive to the onset of rebellion; and [V] comprehensive approaches focusing on a wide range of political and economic interactions should be more readily applied in the search for conflict drivers (Ballentine and Nitzschke, 2005:5).

Limits two (state as an actor and an institution...) and four (governance failures mediating opportunity) are associated in that the instigative role of government needs to be further investigated, while limits 1 (incentives subject to change, non-viable basis of statistical correlation), two (overly rebel-centric theories of rebellion), and four share commonality in that they are point critiques of the greed thesis overall.

Of course there are other alternatives to greed and grievance, for instance, with the advent of the ‘New War Argument’<sup>34</sup> it is acknowledged in the literature that civil war has taken on a distinctively economic character since the end of the Second World War. According to McNeish (2010:7), the “new wars theory” holds that more than generalized greed or grievance or even foreign intervention and sales of future exploitation rights more specifically, the reasons for this economic turn are a result of practices subsumed under the heading of “globalization”, including: the reduction or end of superpower financing of opposing civil war belligerents; the further liberalization of world trade; the growing demand and enhanced competition for certain materials in the wake of the rise of China, India and other regional powers<sup>35</sup>.

Beyond the bounds of ‘ceteris paribus’ economics<sup>36</sup>, research on war and war economies is becoming increasingly interdisciplinary. The goal is to increase economic stability in understanding the contours of change toward full cooperation in conflict zones, which tend to be areas where resource deposits are discovered. Ballentine and Nitzschke (2005:2) speaking to the issue of economic stability, point out that weak states in the developing world allow combatants to benefit from, “... business deals with criminal networks, arms traffickers, and scrupulous corporate entities, reaching well beyond the war zones to the world’s

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<sup>34</sup> Kaldor, M. (1999). *New Wars: Organized Violence in a Global Era*. Cambridge: Polity Press.

<sup>35</sup> For more on this in particular refer to: Klare, T. (2008). *Rising Powers, Shrinking Planet: The New Geopolitics of Energy*. New York: Metropolitan Books.

<sup>36</sup> An assumptive principle and positive practice in economics suggesting that the effect of one economic variable on another can be ascertained by holding constant all other factors or influences that may affect the response variable. The concept of ‘ceteris paribus’ has been scrutinized as tending toward oversimplification, showing “...itself most markedly perhaps in excessive ‘abstraction’ which manifests itself: in restriction to too small a number of variables taken into account as important; in too few objectives being recognized as properly operative; and in the movement from premises to conclusions by procedures whose only justification often is that they are time-saving and thought-economizing” (Viner, 1952:2). Verbatim, "Holding other things constant" or "all other things being equal".



commodity markets and major financial centres”. As resource wars are becoming a new type of armed conflict, McNeish’s summary on the militarization of economies becomes even more salient, “...war economies can only be transformed into less militarized economies if the armed groups’ sources of finance are dealt with in an integrated manner, beyond natural resources and beyond the war zone” (2010:11).

Research regarding the onset, duration, intensity, and type of civil war speak mechanistically to the function of civil war in its relation to natural resource abundance. Some mechanisms put forth by Ross (2004b as cited in Rosser, 2006a:18) are the ‘foreign intervention, ‘booty futures’, and ‘separatist’ mechanisms whereby (1) the probability of civil war increases the probability of foreign intervention to support rebel movements which aid in securing resource wealth, (2) the probability of civil war is increased in that it enables rebel groups to sell future exploitation rights to minerals they hope to capture, and, (3) natural resource related grievances cause separatist civil wars. In addition to mechanism, the type of resource in question is important as well.

### **2.6b(i) Reviewing Civil War by Analytical Perspective**

According to Auty (2004 as cited in Rosser, 2006a) point-source resources are more connected to conflict than diffuse resources and lootable resources are more connected to conflict than the non-lootable. If the resource is point-source lootable, that is, concentrated in a specific area and accessible without advanced technology, it is more likely to fund existing civil war. This relation articulates with the behavioral perspective in that the existing civil wars are caused by

grievances over wealth inequality, limited political rights, or tribalism. If the resource is non-lootable and geographically dispersed it can still create civil war as groups fight for political control in order to access the rents. This relation articulates to the rational actor perspective in that it “assumes rebellions are caused by greed” (Rosser, 2006a:17).

The duration of civil war is more likely to be a combination of both of greed and grievance; while the onset of civil war may initially be caused by greed or grievance or a recombination of both and still not exclude any number of other factors. The statist perspective puts forth that civil wars are caused by state weaknesses leading them to predatory behavior, which then becomes the downfall of the economy while the radical perspectivists, or the developmental theorists, put forth the ‘resource scarcity’ idea. That is, the conflict in resource abundant developing nations is contextualized in terms of contests between rich states over scarce resources, a concept effectively similar to the earlier explained ‘foreign-intervention’ mechanism.

The role of regime type plays into government behavior and subsequent governance policies i.e. institutional quality. Though democracy is the preferred regime type, by scholars and practitioners alike, there are hindrances to the development of democracy as currently discussed among four main explanations, deriving largely from the link between natural resource abundance and regime type, i.e. ‘rentier state’ theory. Analysts suggest that [1] the wealth from natural resources is used in government spending and low taxation to reduce pressure to become a democracy, and [2] the wealth also enables governments or political

elites to spend more on internal security i.e. militarization, and with such capacity maintain support and consolidate their power. This is especially concerning in authoritarian environments where such power would lead to an increased resistance to “democratic change” though such is a concern for “oil states in general” (Rosser, 2006a: 20). It is also argued that stronger internal security would also enable governments to “limit the scope for political opponents to organise and challenge them” (as cited in Rosser, 2006a: 20) presumably via insurgency. A rational actor analysis explains the proliferation of civil war in that [3] natural resource wealth consolidates agreeable regimes in power<sup>37</sup> therein rationalizing war by antagonists, potentially resulting in a dictatorship by contender, incumbent or opposition. Finally, a broadly applied historico-structuralist perspective suggests that resource wealth inhibits production factors such as increasing education levels and labor specialization thereby preventing “social and cultural changes that facilitate democratization” (Rosser, 2006a: 20) and decreasing modernization. This consequence of resource wealth has been referred to as the ‘failed modernization’ effect. One suspects that Viner vis-à-vis the traditional perspective discussed earlier would assume differently that resource wealth inhibits such social production factors. This captures the intellectual shift from ‘resources are good’ to ‘resources are bad’. While these perspectives offer guidelines, none are evaluative panaceas and there are deficiencies mainly relating to scope.

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<sup>37</sup> The phrase used is “particular regimes in power” but consolidation indicates agreement.

## **2.7 Analytical Discrepancies**

It is assumed that in general, policy elites enjoy a high degree of autonomy from the masses due to financial independence provided by a combination of resource wealth and non-taxation. Since the masses do not fund the government they make few demands of it. As Rosser (2006a) explains, the assumptions of statist and behaviorist perspectives are inadequate in that they do not give enough attention to the nature of the social contexts that lead to violence proneness, poor economic performance, and a lack of democratic adherence. Natural resources, particularly oil, “enters into an ongoing process of development and into a constellation of identities” (Okruhlik, 1999 as cited in Rosser, 2006a), now inherent in state institutions, forged by the social forces of corporate groups in power prior to the resource discovery. Statist and behaviorist perspectives fail to allow for the subtle persistence of the previous colonial influence.

The assumption of a rational actor perspective is that the societies of resource abundant countries are composed of disconnected rational utility maximizing individuals who only join together into organized groups to advance common economic interests. This assumption lacks the resolution to inform the socio-structural characteristics of such states. For instance, how are groups defined? Class? Ethnic? Religious? What is the relationship between these elements? The same assumption deficiency holds for the social capital approach as well.

The historico-structuralist approach is understood to “provide the most sophisticated analysis of the role of social forces in shaping developmental

outcomes in resource abundant countries” in that it is able to address colonial influences. Still, a drawback of the approach is that it tends to be class-centric, lacking the resolution to address the ethnic and religious terms of social group engagement. This is particularly important in resource abundant countries because they are more often defined by ethnic and religious backgrounds. This means that economic development is impacted by the affect that resource wealth has on the social structure of these countries.

Approaches from dependency theorists tend to take all of the previously mentioned deficiencies into account, “giving consistent attention to the role of external factors in mediating the relationship between natural resource wealth and developmental outcomes” (Rosser, 2006a:22). When the dependency approach is juxtaposed against the convention, which is to regard developmental outcomes as solely a product of domestic political factors, the convention is regarded as overly simplistic. The dependency view is strongly represented in the Wallersteinian world-system perspective, whereby periphery countries, such as those exporting raw materials, are functionally maintained to serve the core industrialized nations. Any upset to this functioning lends rationale to corrective action by the core. Cores monopolize the capital-intensive production restricting the rest of the world to providing labor and raw resources. The resulting inequality then reinforces asymmetric development. The ‘resource curse’ provides an explanation of this asymmetric development in terms of natural resource assets and amenable labor terms, *in toto*, available to the ongoing world-system. Still, Rosser claims the fault of the dependency theorists’ view on developmental outcomes is that

theorists are “wrong to imply that incorporation into the global capitalist system always has negative developmental consequences” (2006a:22). Summarily, he suggests that developmental outcomes are more complex in the sense that the geo-political and geo-economic environment of a developing country are also important factors acting on the resource wealth-economic development relationship but that they are understudied in the current literature. One would think world-systems analysis could contribute to this gap, for instance the work of Bonini (2012) who studied the development implication for raw materials producers in the broader context of complementary versus competitive regimes of accumulation by economic hegemon. Bonini’s work will be reviewed in detail in a later chapter.

Still, another weakness of the literature remains the strongly recurrent observation that a firm historical foundation for the analysis is lacking in that an analysis without reference to historical dynamics suffers a lessened potential to serve critical issues of institutional change. As McNeish has reinforced, “parsimonious explanations that ignore time and historical context are unlikely to capture the dynamics of potentially more than one combination of a set of variables that can induce positive institutional change”. Authors such as Omeje (2008), and Stevens & Dietsche (2007) collectively argue for a comprehensive study of rentier politics in extractive economies across historical backgrounds and across regions, which would detail the mechanisms and driving behaviors of key actors in their role within structures of domestic and international political economy. Further Omeje (2008) argues that indeed it seems this largely

unexplored or overlooked aspect of politics in extractive economies may have the most decisive implications for the presence or absence of dysfunctional conflict in different countries and regions of the global south (McNeish 2010:17).

Ultimately, the oft-institutionalized mechanisms and driving behaviors of key actors within the international political economy, is what the study of global governance addresses. Subjective as such inputs would be, critics of the resource curse thesis also recognize that it is ideological perspectives, more so than scientific knowledge, which founds assessments of what good institutions are (McNeish, 2010:18).

## **2.8 ‘Red Herrings’ and Other Doubts of the Resource Curse**

Even though the literature provides considerable evidence that natural resource abundance is associated with various negative development effects, it is not statistically conclusive (Rosser 2006a) and a number of analysts now question whether the whole discourse of a resource curse is a “red herring” (Brunnschweiler & Brundt, 2007; Wright & Czelusta, 2004). As research into the resource curse continues there is increasing recognition that serious gaps exist in the kind and quality of the data on which the Sachs-Warner formalized theory of the resource curse is built. Endogeneity issues, i.e. when factors being compared are endogenous to structures not explicitly being compared and when a factor not under consideration potentially determines those that are, and omitted variable or selection bias, i.e. the inconsistent selection or omission of data set variables across regressions, persist (Menaldo, 2010; Manning, 2004; van der Ploeg and

Poelhekke, 2010). Also cited is “weakness of the instruments, violation of exclusion requirements, and misspecification error” as “unfortunate data mishaps” that when corrected provide no evidence for the resource curse (van der Ploeg and Poelhekke, 2010). Similar to this is Davis (2012) who, in differentiating between pure, statistical, and scientific replication, found the Sachs-Warner data exceedingly difficult to replicate on a pure basis (though possible) and riddled with unsettling bias concerns. Davis’s work will be reviewed in detail in a later chapter as well.

Brunnschweiler & Brundt (2007) found that the statistically significant relationship between resource dependence and institutional quality reflects the lack of industrialization that would spread dependence among multiple sectors. Menaldo (2010) found that rather than a rentier state effect, the data supporting the resource curse is better explained by a weak state capacity effect in that states with weak institutional capacity are more likely to encourage exploration out of revenue-starved desperation. There is an implication that desperation invites challenges to ruler’s political authority and induces concessions to oil firms that a stronger state may not make. As Obeng-Odum puts it, “the *status quo* implies that oil companies, which typically wield considerable economic power, may have their way, while the state only has its say” (2012:19). Indeed, it would take a strong state capacity to buck such a convention.

Across the board researchers are calling for finer-scale data attributable to case-based research and a greater emphasis on the political economy of individual resource environments. Wright & Czelusta (2004) suggest that beyond resource



abundance as a stock, it is actually the perception of the stock taken by policymakers and businesses that determine management, and thus developmental outcome. When mineral abundance is considered a ‘windfall’ the issue becomes one of “splitting up the bounty” and not about self-sustaining wealth creation or development. Di John (2011) suggests that the nature of the state and the structure of ownership in the export sector largely determine whether mineral and fuel abundance generate developmental outcomes.

While van der Ploeg and Poelhekke (2010) found no evidence supporting either a resource curse or blessing they were able to suggest that state capacity to handle volatility is at once a key factor. They found that rents stimulate growth in stable states, but increase volatility in volatile states, indirectly worsening growth prospects. The researchers also found that there is a correlation between resource dependence and economic growth. The correlation is negative in highly volatile states and positive in stable states “so that the quintessence of the resource curse appears to be the notorious volatility of commodity prices” (van der Ploeg and Poelhekke, 2010:20). Here the Prebisch-Singer thesis conflates with van der Ploeg and Poelhekke’s assessment that a country undergoing a regime type transformation and dependent on resources by way of resource rents, will likely experience a negative impact on growth as a result of the volatility inherent in regime change. It would seem that this conflation points to the compression of state capacity by both internal and external volatility pressures.

Similarly, Obeng-Odum (2012) suggests that the resource curse-blessing dichotomy is insufficient and that uncertainty i.e. volatility and Dutch disease-

effect is neither a curse nor blessing. Obeng-Odum (14) notes that the use of oil revenues determines whether the Dutch disease-effect will present and therefore categorizes it as uncertain. He notes that resources can be a blessing in that they do, indirectly, create some jobs derived through demand but not through immediate petro-employment. Also, corporate social responsibility (CSR) can bring, in his reviewed case of Ghana, medical services (valued at 150,000 dollars) and water wells. One would insert that this is a pittance on CSR compared to the millions in environmental and other damages. Obeng-Odum (2012) notes that there are many potentially positive multiplier effects of oil including a 38 million dollar World Bank credit to the Ghanaian government to implement an ‘Oil and Gas Capacity Building Project’ and a 2 million dollar grant for grassroots and community empowerment. Already, the government has offered half a million dollars to its premier university to build capacity. There is warning already as Obeng-Odum points out that 11.90% of the annual budget funding amount (ABFA) goes to expenditure and amortization of loans for oil and gas infrastructure, 79.82% of ABFA is for road infrastructure which undoubtedly support a great amount of industrial traffic, and only 0.45% of ABFA is for capacity building including oil and gas, which then includes the 38 million dollar WB credit. With less than 1% of ABFA spent on capacity building the implication is typical, to speak conservatively.

Further, uncertainties encompass the Dutch disease, as something that could or could not happen depending on how rents are spent in practice and uncertainty is inherent in price volatility. The real curse, though, turns out to be

“the environmental aspect of oil windfall” (Obeng-Odum, 2012). There are countless issues operating each with attendant consequences if a state lacks the administrative capacity to prepare for the risks of oil exploration, the management capacity to handle spills, or regulatory infrastructure and wherewithal to hold firms accountable. Locally more disruption is found in that prices for land and rents increase as investors purchase near the drilling site thus displacing lower-income tenants and the social matter is aggravated in that the marginalized of the local population tend to live at these sites.

## **2.9 Policy Recommendations**

Whether associated with blessings or uncertainties, the ‘resource curse’ is accepted in practice, as a fact supported by international backers holding interests in management policies. But there still, there is no real agreement at either the international or domestic level on what the causes or best steps to take are in relieving the resource curse as the preeminent manifestation of the links between natural resources and conflict.

Researchers have made several reform recommendations to help affected countries overcome it, the most significant of which involve: [I] changes to economic and investment policy, [II] transforming political and social environments, [III] inducing direct rent distribution schemes, [IV] privatizing resource sectors, and [V] utilizing transnational development organizations to close loopholes and reduce opportunities for income associated with price volatility. Even with these efforts, political feasibility remains one of the main

difficulties. Natural resource dependence makes the execution of these changes so tenuous that only in continuing to research the “dynamics underpinning the variation in resource abundant countries’ development performance, [... are we] likely to uncover potential levers that might be employed to trigger the required policy, behavioral, institutional or social changes” (Rosser 2006a:26). As Rosser also notes, the current uptick in aid flows, particularly to sub-Saharan Africa, means such political feasibility may prove possible in a shorter time frame than expected. Rosser makes reference to how quickly the Kimberly Process for diamond certification was put together, “a couple of years”, suggesting that achieving change at the international level may be less prohibitive than at the domestic level. This means there is room to increase structural adjustment conditions in “any attempt to create new international financial mechanisms for helping poor countries cope with international commodity price instability” and “it may, therefore, be more profitable for those concerned about the ‘resource curse’ to focus on promoting change at the international level” (Rosser 2006a:26).

Additionally, analysts are calling for better regulation of petroleum-related aid as part and parcel of a sort of ‘anti-corruption tool-kit’ (Kolstad, Wiig & Williams 2008). Petroleum-related aid can be defined as activities aiming to improve the development climate and impact of petroleum resources (McNeish, 2010). Currently the focus on revenue, resource, and environmental management is highly supported by the international community but researchers are claiming that such focus is too limited to address the core of the ‘resource curse’ being the overarching problems of accountability and unfavorable incentives (McNeish,

2010:15). These overarching problems not only slow positive institutional change, but also according to Kolstad, Wiig & Williams (2008) neither “does capacity building and technical assistance per se” lead to the desired result. Fiscal transparency, rather than capacity building and technical assistance, is posited as being able to facilitate an enhanced “accountability of the regime and of their own business partners towards the citizenry, and thus strengthen state-society relations and societal trust deemed crucial for state and peace-making”. A recommendation put forth to address possible resistance against transparency is for the international community to “make the disclosure of revenues from natural resources by governments and/or companies a pre-condition for development aid, investment and credit” (McNeish, 2010:12). Along the lines of the ‘New War’ theory, there are also concerns that calls for transparency operate to manage the ever tenuous hegemon-client relationship and justify foreign intervention as is exemplified by the recent (July 18, 2013) U.S. House Committee on Foreign Affairs Sub-committee hearing: *Is There an African Resource Curse?* and its companion hearing, *Emerging Threat of Resource Wars* (July 25, 2013).

### **2.10 Beyond Policy: People and ‘Resource Sovereignty’**

The policies recommended to ameliorate the ‘resource curse’ are often targeted toward institutions and the elite who populate them, but in fact both parties, international donors and national governments alike, seem to disregard the larger constituency and how its members are impacted by state and international level ‘gang wars’ over resources. If it can be said that the nature of a state reflects the relationship of its people among each other and that the nature of governance

reflects the relationship of those people with their leadership, willingly selected or otherwise, then these relationships are the growth culture colonized by development. From this perspective, developmental pathways are personal and the mechanisms that open or close these pathways induce personal responses. As McNeish (2010:19) underlines, "...resource wealth brings to the fore issues of political and social identity under the State and ultimately the ideological orientation and identity of the State itself".

In a recent text, *Flammable Societies*, McNeish and Logan (2012) question the political and scientific basis of international policy which aims to address resource management but uses standard western models of economic governance, institution building, and national sovereignty. Demonstrating the ways in which the "...clashing understandings of ownership and different epistemologies of nature, law and participation emerging from local societies call into question the limits set for state policy on natural resource management" (2010:19), McNeish and Logan advocate the use of the term 'resource sovereignties' in an effort to embody the essential grain of a social relationship to natural resources. That is, the "...the attribution of value by social groupings to attributes and capacities that provide functional (economic development) and/or symbolic utilities (social identification, membership, and ownership)" (2010:19).

What this means is that people's potential opportunities and range of potential opportunities change with the onset of natural resource income. These potential opportunities bring forth questions of socio-cultural identity, participation, ownership, and rights. Often times each of these issues prove

contentious; without the presence of a game changer like natural resources. In this way the idea of ‘resource sovereignties’ attempts to capture the social affect of potential opportunity, not only particularly in areas where such potential rarely appears and real opportunities are seemingly few but also where a potential opportunity for local enrichment is inherently connected to a very real global sourcing opportunity.

### **2.11 Quality and Quantity: A Call for Research Depth**

Most research on the relationships between natural resources, economic development, and conflict have been macroeconomic but across the board more researchers are calling for alternative approaches to understanding these issues; approaches that are more interdisciplinary and inclusive of a wider social geography and political economy (Rosser, 2006a; McNeish, 2010; Heinrich, 2011). Repeatedly researchers note the necessity of fine scale data from case-based research, especially in aid-recipient countries. Of special interest are the dynamics of greed in politics and war, the complexities of grievances in resource rich countries in the global south, and the everyday operation of class divisions in resource distribution (McNeish, 2010). While the ‘resource curse’ is based on a correlation between resource abundance and economic development, and today there is some evidence of a link between natural resources and conflict, both correlations remain causally inconclusive. Therefore the, ““resource curse” [...] needs to be interrogated as to what extent it represents a relevant discourse” (McNeish, 2010:20), a significant point made by Davis (2012) as well, though

more strongly and empirically evinced.

This suggests that the ‘resource curse’ maybe more of an obscuring umbrella than a tangible problem in its own right. Instead, more insight is needed regarding the issues that seem to surround natural resources or are otherwise exacerbated by them. Issues such as how institutional (state) contexts act as catalysts for conflict; how the socio-historical, ideological, and political dynamics and legitimacy of decisions affect the use of, and access to rents and resources; and instead of behavioral theories of greed or rational actors, more research is needed as to the role of historical grievances and complications of resource sovereignties i.e. religion, class, ethnicity, identity, and ideology. In other words, what does development really mean on the ground? What about everyday life changes as a result of development? Other questions under the ‘resource curse’ umbrella, which are ripe but still understudied, concern the apparent inter-relationships that seem to exist between extraction, campaigns for self-determination, corruption, organized crime, and the informal economy.

A key to understanding larger conflicts is to track the ‘pre-symptomatic’ and pre-existing conflicts at the regional and sub-regional level, that is, smaller conflicts that can then be further provoked by market commodity specific interests. For instance, in 2011 oil was discovered in Turkana County, Kenya, East Africa. Though former President Kibaki, on his way out, was thrilled, the people of Lake Turkana have already been in conflict with each other over water and cattle as the lake was said to be drying up. I that was not enough to complicate matters in the larger sourcing context, it was large amounts of water



was discovered in the very same region. Since petro business is notoriously degrading to the surrounding environment especially, how will the discovery and drilling affect this area environmentally and how has it already changes the pre-existing conflict? Will it come down to a decision of water or oil in Turkana County? It is uncertain how the circumstance will shape up but Kenya is a country to watch for more reasons than one.

### **2.12 Quality Control: The Resource-Opportunity Complex**

Rosser makes a major contribution to this review with his observation that [1] that most of the analytical perspectives for framing the ‘resource curse’ are highly deterministic and generalizing to the extent that the level and quality of economic performance, political regimes, and violent propensities are largely undifferentiated among resource abundant countries; and that, [2] negative development outcomes are the products of the resource endowment itself. To this effect, most noticeably to point 1, Rosser focuses on the fact that there is considerable variation in developmental outcomes experienced by the countries on an individual basis and in the “various political pathologies that are seen as mediating the relationship between natural resource abundance and development performance” (Rosser, 2006a:22). Not all countries experience poor economic performance, descend into violence or develop authoritarian regimes and not all countries have developed fractional or ‘rentier’ states, or suffered from corruption or rent-seeking. Botswana, above all others, is held as the exceptional model to this extent. For this reason, Rosser suggests that work on uncovering which variables are most significant in mediating the resource abundance-economic

development relationship holds the most promise for “producing the desired understanding of the causes of poor economic performance [...] as well as the conditions that have enabled some countries to escape” (2006a:24) the ‘resource curse’.

Rosser’s second point, that the negative development outcomes are seen as the products of the resource endowment itself, though less addressed in his paper, will be shown as among other things, highly significant to this work in particular, and as Wright and Czelusta (2004:36) point out, to the resource curse (rent-seeking and corruption) in general. The discourse related to the ‘resource curse’ reflects a variety of conceptions, recommendations, and operating frameworks with which the larger issue of natural resources and conflict is contextualized. Taken from the economic perspective of scarcity, the evolution of the idea of the ‘resource curse’ stands out as requiring multiple methods and interdisciplinary research techniques in order to fully investigate its internal mechanisms but also its scholarly function, war-time practicality and even its degree of legitimacy. I propose that a critical discourse analysis, an interdisciplinary qualitative research method, in combination with a world-systems analysis can contribute significantly to the unpacking of the ‘resource curse’ by looking more closely at how the rhetorical concept interacts with its political context, but also how the ‘resource curse’ is a political context.

### **2.13 The Craft of Scholarship: Exemplifying Conflict Rhetoric**

The craft of scholarship does not take place in a vacuum. While the dialogue of

the resource curse has an intellectual heritage in development economics, dialogue in the area of development economics is part of a larger conversation about economic growth and security, which itself is a component of every news broadcast. Where growth and security is a public issue it follows that resources and conflict have a place in the public understanding. To this extent, even the mainstream information consumer is somewhat aware of the context surrounding resources and conflict, the general arena of the ‘resource curse’.

For instance, that the public is bathed in information is evidenced by former President George W. Bush’s, 2003 State of the Union address wherein he stated that, “throughout the 20<sup>th</sup> century small groups of men seized control of great nations, built armies and arsenals, and set out to dominate the weak and intimidate the world”. The former president proceeded to associate those small groups of men with limitless “ambitions of cruelty and murder”, and still further to equivocate such ambitions with those of “Hitlerism, militarism, and communism”. He concluded triumphantly by saying that in each case those ambitions were defeated by “...the strength of great alliances and by the might of the United States of America”<sup>38</sup>.

That the public discerns how the information they receive conveys their acquiescence to the U.S. role in global politics to secure resources and stability on their behalf; is part of the purpose of this thesis. While “Hitlerism, militarism, and communism” are all functionally tied by the goal of concentrating power and exerting it via paternalism with the divisive tools of racism and classism, in 2003, the description of “the strength of great alliances and by the might of the United

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<sup>38</sup> <http://www.cnn.com/2003/ALLPOLITICS/01/28/sotu.transcript.7/index.html>

States of America” correlated with the support of the Global North as guided by the leadership of the United States of America, as it does today in 2013. Returning to the “20<sup>th</sup> century small groups of men”, the wealth disparity in the U.S. being well known<sup>39</sup> with 1 percent of the population owning nearly 40 percent of the country’s wealth, is felt by all who cannot count themselves among the minority, that is to say that ‘these small groups of men’ is a reality understood by the many. What may be less understood is the insidiousness of language and public media networks that skew knowledge and influence voting. Often it is such votes, so conditioned at casting, which release the public funds to build those armies and arsenals and ultimately permit those who “set out to dominate the weak and intimidate the world” to do so.

And so the loop closes with the Global North and the U.S. fighting fire with fire and claiming victory amid the flames. It is all justified by the inflammatory phrase<sup>40</sup>, "it's not our fault God put our oil under other people's countries", paraphrased, derived, and misattributed to Donald Rumsfeld from a statement made by Dick Cheney<sup>41</sup> in 2002 as he explains, "the problem is that the good Lord didn't see fit to put oil and gas reserves where there are democratically elected regimes friendly to the interests of the United States".

From this summation the discourse of the ‘resource curse’ can then largely be understood as a conversation between weak resource-haves, represented by

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<sup>39</sup> Wolff, Edward N. “Recent Trends in Household Wealth in the United States: Rising Debt and the Middle Class Squeeze: An Update to 2007. *The Levy Economics Institute Working Paper Collection*. Working Paper 589. March 2010. [http://www.levyinstitute.org/pubs/wp\\_589.pdf](http://www.levyinstitute.org/pubs/wp_589.pdf); <http://www2.ucsc.edu/whorulesamerica/power/wealth.html> .

<sup>40</sup> Galloway, George. “Roots of Terrorism”. *Alternative Radio*. September 19, 2005. No pun intended.

<sup>41</sup> [http://www.huffingtonpost.com/charlie-cray/the-plan-to-steal-iraqs-o\\_b\\_11793.html](http://www.huffingtonpost.com/charlie-cray/the-plan-to-steal-iraqs-o_b_11793.html)

national governments, and strong resource-haves, represented by international donors. The Global North obviously does not lack a distribution of natural resources, the contiguous United States is incredibly diverse in the resources it has disposed of already, but in the sense that these advanced nations continually need to secure more resources to persist at the leading economic edge, one could understand ongoing resource-based conflict between the North and the South. Further, given the historical relations and the various stages of resolution, one could indeed expect it.

According to McNeish (2010:18), the “resource curse” as a concept, along with the proxy use of risk indicators, was “originally formed as a means of identifying countries that because of internal weakness needed assistance”. Over time the original concept has come to foster generalizations that “often fail to take account of different state forms and have been all too easily manipulated by politicised efforts to discredit and therefore exclude countries undergoing regime change” (2010:18). While identifying countries for aid is hardly an apolitical process, the “discourse on the resource curse and fragile states are, therefore, at times related powerful ideological weapons that are drawn upon by rulers to legitimise policies and by opponents to criticise rulers” (2010:18<sup>42</sup>).

By this measure, scholars of world politics are essentially engaging a study of the proverbial “gangster’s paradise” where the ‘resource curse’ seems to be but a tranche of the academic arm in the gangster’s toolbox, albeit with a complex origination. After all, conquerors are old news, and while it is a

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<sup>42</sup> More specifically from Eriksen, S (2008) ‘State Failure’ in Theory and Practice: Extraversion, Domestication and the Idea of the State. Unpublished paper presented at Failed States Workshop. Chr. Michelsens Institute. Bergen.

historical process, conquering, is in no way past tense. In fact, political science literature covering dynamics at the nexus of conflict and natural resources acknowledges<sup>43</sup> the existence of “rational entrepreneurs of violence” (Thies, 2009:475). It is unsurprising then, that “such ideological manipulation of concepts, ideas and numbers might be an unavoidable outcome of international politics” and it potentially explains why researchers continue to find that a “search for a clearer understanding of the relationship between natural resources and conflict, more rigorous and testable criteria for “best practices” as well as “fragility” appear necessary (McNeish, 2010:18).

The research on the ‘resource curse’ speaks to three broad and interacting categories, all of which are key security concerns: economics and human resources (people); global politics, international relations, decision-making authority (power); and natural resources and ownership (property) or money. Returning to the earlier mentioned concept of the ‘resource war’, the diagnosis of a ‘resource curse’ affliction can be thusly seen as an implement of scholarly weaponry, a specialized product of the knowledge-based economy (KBE) and ultimately a self-serving double standard. The relationship between natural resources, economic development and the KBE is further discussed by Wright and Czelusta (2005), while Martens (2004) discusses the role of knowledge, the KBE, and economic development in his text, *The Cognitive Mechanics of Economic Development and Institutional Change*. Additionally, Bret Gustafson writes on *Fossil Knowledge Networks*, in his contribution to McNeish and Logan (2012) of

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<sup>43</sup> Thies, G. Cameron. “Conflict, Geography, and Natural Resources: The State Political Economy of State Predation in Africa”. *Polity*. Vol. 41. No. 4. October 2009. (465-488).

chapter 13.

## **2.14 Conclusion**

The broader historical context of the Resource Curse Thesis has given way to a multi-channel political economy of the ‘resource curse’ where the interests of development, modernization, and conflict, are interacting and coevolving each other, all while states are still trying to decide upon their chosen form of government. McNeish (2010:18) describes this in saying, “despite common reference to variables of legitimacy and capability and “risk” indexes there is no agreement between donor institutions and national governments in the north or south on the desired institutional or political design of resource rich states”. Many states in the Global South, more specifically sub-Saharan Africa, are in some form of regime transition and this adds to the many factors involved in the ‘resource curse’, what might be better termed as the resource-opportunity complex where conflict is inherent given the context of development, modernization, and global political power.

Academic knowledge and science is used both as a weapon and as a beacon of objectivity, truth, and integrity while public opinion is used as a ‘beat-stick’ upon science and academic thought which might prove offensive to public sensibilities i.e. the vision of itself. Science as ideology<sup>44</sup>, is a dual process described by R.C. Lewontin as “... the social influence and control of what scientists do and say [on the one hand], and on the other hand, the use of what

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<sup>44</sup> Lewontin, R.C. “Biology as Ideology: The Doctrine of DNA”. 1991. Anansi Press. Concord, Ontario.

scientists do and say to further support the institutions of society”(1991:preface viii). Because the two spheres feed each other, there is no real separation, in terms of influence, between academic and public discourse, beyond that of public access to the academic context for public rhetoric. Both spheres are tightly controlled, highly systematic and for better or worse, highly responsive distributed information networks. The ‘resource curse’ is an example of this relationship. Beginning initially as an academic observation of the consequences stemming from a small part of a broad quest, it has as of 2003<sup>45</sup>, peaked into the public awareness and is becoming more widespread in non-academic areas. The rapidly evolving literature on the political economy of the ‘resource curse’ in support of the Resource Curse Thesis endeavors to capture a “multi-dimensional phenomenon, involving not simply poor economic performance but also civil war and authoritarianism” (Rosser, 2006a:8), that is, the resource-based tension between economic prosperity and conflict.

While McNeish (2010:18) advocates the necessity of a deeper qualitative social and historical analysis of resource management in the relationship between resources and conflict, he also elucidates that “such an extension of study [...] requires not only the utilisation of other methodologies but also a paradigmatic

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<sup>45</sup> The earliest popular press reference I have found dates to an article in the Financial Times in 1998; [http://money.cnn.com/magazines/fortune/fortune\\_archive/2003/02/03/336434/](http://money.cnn.com/magazines/fortune/fortune_archive/2003/02/03/336434/); <http://www.time.com/time/magazine/article/0,9171,1997460,00.html>; <http://www.guardian.co.uk/global-development-professionals-network/2013/mar/20/uganda-oil-governance-resource-curse>; <http://www.newyorker.com/online/blogs/johncassidy/2013/03/venezuela-resource-curse-will-outlive-hugo-chavez.html>; <http://opinionator.blogs.nytimes.com/2013/02/13/avoiding-the-curse-of-the-oil-rich-nations/>; <http://green.blogs.nytimes.com/2012/12/10/fighting-the-resource-curse-part-2/>; <http://www.forbes.com/sites/richardlevick/2011/12/02/the-resource-curse-ugandas-upcoming-oil-wealth-is-a-global-challenge-on-multiple-fronts/>; <http://edition.cnn.com/2011/BUSINESS/09/05/libya.oil.resource.curse/index.html>; <http://www.guardian.co.uk/global-development/2012/oct/25/natural-resources-blessing-curse-developing-countries>; <http://www.newschool.edu/ucc/courseDetail.aspx?id=NINT5411>;



shift and for some an ideological shift in thinking about society and state in the global south”. In focusing on an influential set of papers by Sachs and Warner, this thesis seeks further insight into the power of ideas, the rhetoric of the resource curse formulation and its political consequences.

### **2.15 Growth Medicine: The Development of the ‘Resource Curse’**

That natural resource-led development was the development pathway of the wealthy global north is common knowledge and cannot be historically altered. For this reason the assertion that natural resources are bad for development is treated in this thesis as a rhetorical statement to which I pose the questions: When did natural resources become ‘bad’ and why? These questions guide a close reading of a subset of Sachs-Warner papers that embody the key rhetorical structures of the ‘natural resources are bad’ argument, known in this work as the Sachs-Warnerian narrative.. The next chapter asserts that the Sachs-Warnerian narrative begins not with the oft-cited *Natural Resource Abundance and Economic Growth* (1995/1997<sub>R</sub>) but with the highly cited, though lesser-mentioned *Economic Reform and the Process of Global Integration* (1995a). Indeed, a Google Scholar search determined that *Economic Reform* has been cited 4,634 times since 1995 while *Natural Resource Abundance* has been mentioned only 3,054 times, combining the 1995b and 1997<sub>R</sub> versions. It appears that while researchers are discussing the earlier paper, *Economic Reform*, it is in the greater context of globalization, rather than as a key driver of the formalized resource curse theory. The resource curse is the object of this thesis the single quotes will be omitted except when included as part of an excerpt.

### **2.15a The Sachs-Warner Set**

As explained in the introduction, the thesis analyzes the rhetoric of the ‘resource curse’ as canonized through a sub-set of papers by Sachs and Warner.

Intellectually, the two most significant papers of the set are *Economic Reform and the Process of Global Integration (1995a)* and *The Big Push, Natural Resource Booms and Growth (1999)*, so that contrary to citation value of *Big Push* (Google Scholar: 622), *Natural Resource Abundance and Economic Growth (1995b/1997)* and, even at citation value 1,845, *The Curse of Natural Resources (2001)* are minor papers. *Economic Reform* couches the earlier observations of Richard Auty and Alan Gelb on the relationship between policy choices and economic performance in a larger tripartite context. This paper also redirects a historical dialogue about global economic development to suggest the Weltanschauung of capitalism as the natural economic order. *Economic Reform* contextualizes movements in economic sovereignty, closely related to post-colonial independence movements, as aberrations in modern human history that would become a zeitgeist marking a system-wide loss of control.

One of the most popular anti-cyclical movements was State-led Industrialization (SLI), after the resource-based ascension of American and European powers. The development strategy of SLI was intellectually justified by Rosenstein-Rodan’s theory of the ‘big push’ and by Prebisch’s treatise for Latin

America based on his observation, corroborated by Singer, on the secular decline in the terms of trade of raw materials exporters. Sachs and Warner's *The Big Push* efforts to dismantle these troubling and persistent premises for comparative advantage-led industrialization. While *Economic Reform* takes the lead on Prebisch's premises, *The Big Push*, as indicated by the title, focuses on Rosenstein-Rodan's strategy. Where *Natural Resource Abundance* is an econometric extension of *Economic Reform* concentrating on the demonstration of the impact of natural resources on the economic performance of the world's remaining resource wealthy countries. Where the premise of 'Dutch Disease' is acts as a portent for the growth of the global industrial centers, requiring immediate attention. The authors model in *The Big Push*, formally demonstrates the mechanism and the urgency after an analysis of Latin American countries by which Sachs and Warner effort to show that while a big push may catalyze growth, more often than not that growth is not sustained. *The Curse of Natural Resources* reviews the strides made in asserting the theory of the resource curse, as well as reinforcing the 'Dutch Disease' premise. Largely the authors are resting on their authority garnered over seven years of intellectual stewardship for the development of the resource curse theory, as reflected in the length of the document relative to the other elements of the Set.

A paper that also considers a subset of Sachs-Warner papers is the work of Lederman and Maloney for the Central Bank of Chile, *Open Questions About the Link Between Natural Resources and Economic Growth: Sachs and Warner Revisited* (2002). Lederman and Maloney observe that what "...makes the work of

Sachs and Warner (1995a, 1997a, 1997b, 1999) distinct from previous pessimistic arguments about the growth potential of natural resources is their reliance on econometric analysis” (Lederman and Maloney, 2002:Abstract). They argue that “...the work by Sachs and Warner needs to be assessed fairly by replicating their analysis as close as possible but also by placing it in the context of the state of knowledge at the time when the authors were doing their research” (Lederman and Maloney, 2002:2). In this case, context is set as “...what was known about the empirics of economic growth at that time” (Lederman and Maloney, 2001:2). More specifically, Lederman and Maloney’s research addresses the issues raised by two “...types of Endogeneity problems presented by the SW specification namely, the Endogeneity-by-construction of the initial level of income per capita and the reverse-causation problem affecting several explanatory variables such as the investment rate” (Lederman and Maloney, 2001:4).

This work contextualizes the ‘resource curse’ in a broader socio-political economic setting that further qualifies a historical narrative and takes advantage of the clear, contemporaneous discourse regarding the biases, and assortment of other issues, that continue to be asserted throughout the resource curse literature as indicated by Menaldo, 2010; Manning, 2004; van der Ploeg and Poelhekke, 2010; Brunnschweiler & Brundt, 2007; Wright & Czelusta, 2004; and Lederman and Maloney, 2001.

The upcoming chapter 3 distills from *Economic Reform* the foundational drive behind the resource curse while chapter 4 reviews the tripartite history as laid out in this initial text. The remaining chapters analyze the rest of the Set;

contextualizes it within a world-systems perspective; and finally synthesizes the Set as the canonizing of the Sachs-Warnerian narrative of the resource curse.

## Chapter III

### **Foundational Theory:** *Economic Reform and the Process of Global Integration*

“...very few economists would now offer grand hypotheses about why poor countries are poor, or what they can do about it”.

Paul Krugman

*Development, Geography, and Economic Theory*  
(1995:7)

In *Economic Reform and the Process of Global Integration*, the authors aptly invoke the concept of the short 20<sup>th</sup> century<sup>46</sup> as the historical baseline for their assertion that trade liberalization in particular, as part of an overall reform program, is the fulcrum of economic growth, the rate of which is a direct result of “...economic management” (Sachs and Warner, 1995:63). By drawing a comparison between the contemporary period of globalization from 1970 through 1995 to, arguably, the first period of internationalization from 1850 to 1914 the authors settle their thesis on the role of economic management as embodied in trade policy, as the determining condition behind a country’s successful integration into the world economy or ultimately its failure. In reviewing this initial paper of the Sachs-Warner Set, this chapter shows how focusing on

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<sup>46</sup> The assertion that the economic development of the 20<sup>th</sup> century was abbreviated as a result of two world wars and a global depression; and that this series of unfortunate events had a profound effect on the pace of global economic integration as was underway prior to 1914.

successful integration provides the broader context for their theory of the Curse of Natural Resources.

The paper *Economic Reform and the Process of Global Integration* outlines the tripartite context that has given way to unequal levels of modernization (money, education, and innovation) that mark the difference in living standards between the global north and south. Sachs and Warner assert that this unequal state of affairs is the consequence of unwise policy choices. Most importantly in their view, being closed to international trade has been most detrimental to the goal of reducing poverty through convergence.

Sachs and Warner make the case that since developing economies are the source of non-convergence, and thus the source of poverty, then the way to eradicate poverty is not only to reform the problem in general, but through the strength of international organizations such as the IMF and the Bank, induce problem areas into compliance with structural adjustments and other economic reforms. These reforms are generally quite upsetting leading to not only popular revolts, insurgencies, coups and all other manner of contention, often lethal, but much more insidiously, a systemic devastation of accumulated wealth within the first one to three years of reformation after which the country is judged a success by how quickly it can regain the losses under the newly imposed free-market paradigm.

Since many of the problematic, non-converging countries also happen to be incredibly wealthy in terms of natural resource abundance, which allow post-

colonial nations to pursue self-sufficiency as a way to strengthen their bargaining position when engaged in international trade, Sachs and Warner have seemingly uncovered that such wealth is in fact punitive, not to the developed nations but to the developing nations themselves, since it activates poor characteristics, such as sloth, corruptibility, femininity, and cowardice inherent in those of tropical regions, where the "...soil is fat and fertile" (Jean Bodin as cited in Sachs and Warner, 1995b:4) and where most often today, strategic resources are found.

### **Sachs and Warner on Convergence**

While one of the key goals of Sachs and Warner's paper on *Economic Reform* was to "help answer several debates concerning cross-country growth patterns", the most important task was to "help to resolve the widely discussed conundrum concerning *economic convergence* in the world economy" (SW, 1995a:1- authors' italics). The authors agree that "there has been no overall tendency for the poorer countries to catch up, or converge, with the richer countries" (SW, 1995a:3) but have endeavored to "show that this problem is readily explained by the trade regime" (SW, 1995a:3), a fact uncovered by their quantitative analysis that asserts "open economies tend to converge, but closed economies do not" (SW, 1995a:3). The hypothesis behind the economic theory of convergence<sup>47</sup> is that output per capita converges across time such that income disparities per capita across economies will narrow overtime, thus per capita merging economies to the same standards. Sachs and Warner point out that they are not the only researchers to

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<sup>47</sup> See: Rassekh, 1998. "The Convergence Hypothesis: History, Theory, and Evidence". *Open Economies Review*. Vol. 9. Pp. 95-105



have expressed disagreement, based on the data, with the overall assertion that convergence is currently ongoing. To investigate convergence at a finer scale and elaborate upon their effective assertion of a restricted, or conditional, convergence in more detail the authors plotted GDP data on an x-y axis and assessed the relational pattern with an eye toward whether or not convergence predominated in the data.

With data for *level of per capita GDP for 1970* plotted on the x-axis against the *growth of per capita GDP for 1970-89* on the y-axis the authors graphically narrate that growth for the following 19-year period was dependent upon initial conditions and had those economies closed in 1970 been open they, too, would have been able to share in the long-run prosperity experienced by the those economies initially open during their closure. The authors argue that if there was such a predomination of convergence in the data then “there would be a negative relationship between initial income in 1970 and subsequent growth between 1970 and 1989” (SW, 1995a:38) such that countries beginning the period with higher per-capita GDP would grow more slowly relative to countries with poorer initial conditions. By the authors’ data, Botswana is the only stand-out sub-Saharan African nation to make this sort of case for convergence<sup>48</sup> and it is otherwise joined only by Yemen, and the Asian Tigers/Cubs. Still, outside of these spectacular cases Sachs and Warner maintain that in the overall world economy “...no such tendency is found” and that in reality “...many poor

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<sup>48</sup> The island nation of Mauritius, off the coast of Madagascar, is the second sub-Saharan nation in this group at around 3.5 percent less growth for the period than Botswana but both countries are the subjects of many articles investigating their successes.

countries, particularly those in sub-Saharan Africa, not only fail to grow faster than the rich countries; they in fact experience negative per capita growth<sup>49</sup>, so that the gap between these countries and the rich countries widens significantly” (SW, 1995a:38).

Referring to the work of Paul Romer on non-convergence in his path-breaking 1986 analysis on *Increasing Returns and Long-Run Growth*, SW highlight that Romer suggested this non-convergence was “...due to the fundamental nature of economic growth” (SW, 1995a:38) meaning that standard production processes are subject to knowledge spillovers so that the whole economy can become more efficient by adopting out-of-sector developed production methods. If rich countries already have established pathways for recruiting, retaining, and training workers as well as educational institutions for advanced training, the initial conditions in these countries are reasonably expected to be much higher. Because innovation always moves forward, these countries are poised to stay ahead of poorer economies struggling with relatively under-educated and thus non-competitive workforces. To this end, Romer asserts that in fact “rich countries could continue to stay ahead of the poor countries, since their higher income would reflect higher levels of learning or human skills, which in turn would raise the future productivity of capital” (SW, 1995a:39).

While Sachs and Warner find Romer’s radical assertion “intriguing” they point out that his interpretation “seems to be contradicted by other data” which it

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<sup>49</sup> Here the authors refer to the countries of Mozambique, Central African Republic, Chad, Angola, Niger, Sierra Leone, Benin, Ethiopia, and Gabon as those sub-Saharan African nations that have actually experienced negative growth.

turn supports their own assertions of “convergence within restricted subsamples of economies” (SW, 1995a:39). Sachs and Warner enlist the work<sup>50</sup> of Steve Dowrick and Duc-Tho Nguyen who show that the advanced OECD economies “displayed strong tendencies of convergence in the post-war period” (SW, 1995a:39) and that among that class of countries, “the relatively poor OECD economies tend[ed] to grow more rapidly than the richer economies, thereby closing the proportionate income gap” (SW, 1995a:39). The authors note that Dowrick and Nguyen are not alone in their assessments and that similarly Williamson and associates, Robert Barro and Xavier Sala-i-Martin, and Dan Ben-David have all established “evidence for convergence among the leading economies” (SW, 1995a:39) including the “U.S. states, [...] Japanese prefectures [...], and members of the European Community and the European Free Trade Area” presumably all of which experienced a “...dispersion of income falling as trade liberalization proceeded” (SW, 1995a:39). The equally intriguing yet contrasting evidence has given rise, as explained by Sachs and Warner, to two related hypotheses namely the *convergence club* hypothesis<sup>51</sup> and the *conditional convergence* hypothesis<sup>52</sup>.

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<sup>50</sup> From authors see: Dowrick and Nguyen, 1989. “OECD Comparative Economic Growth 1950-1985: Catch-up and Convergence”. *American Economic Review*. 79(5):1010-30; Williamson, 1992. “The Evolution of Global Labor Markets in the First and Second World Since 1830: Background Evidence and Hypotheses” *Working Paper on Historical Factors and Long Run Growth* 36. Cambridge, Mass.: National Bureau of Economic Research (February); Barro and Sala-i-Martin, 1991. “Convergence Across States and Regions”, *BPEA*. 1:1991. Pp.107-58; Ben-David, 1993. “Equalizing Exchange: Trade Liberalization and Income Convergence”. *Quarterly Journal of Economics*. 108(3):653-79.

<sup>51</sup> From authors see: Baumol, Nelson, and Wolff, 1994. “Convergence of Productivity: Cross-National Studies and Historical Evidence”. New York: Oxford University Press.

<sup>52</sup> From authors see: Barro, 1991. Economic Growth in a Cross Section of Countries”. *Quarterly Journal of Economics*. 106(2):407-43; Barro and Sala-i-Martin, 1991. “Convergence Across States and Regions”, *BPEA*. 1:1991; and Barro and Sala-i-Martin, 1992. “Convergence”. *Journal of Political Economy*. 100 (2):223-51.

The authors explain that William Baumol and other analysts have suggested the *convergence club* as the emergence of "...a subset of countries for which convergence applies, while countries outside of the club would not necessarily experience convergence relative to those within it" (SW, 1995a:39), such as those countries that both fought together and fought each other in the World Wars. By including Baumol's own words the authors draw attention to his intention to be transparent in his assertion of class-based convergence as he neatly states, "It also seems clear that convergence does not apply to the poorest of the world economies, though the line separating those eligible for membership in the convergence club and those foreclosed from membership has not been determined definitively" (Baumol, 1994:82 as cited in Sachs and Warner, 1995:39). Though this line of demarcation for membership may still be definitively undetermined it is certainly animated by the behavior of Sachs and Warner's rhetoric on democracy and experienced world leaders.

Weaving a thread similar in focus to Romer's thesis, Baumol is also of the mind that initial levels of human capital, i.e. the recruiting, training, education, scalable capacity, and creative mobility of the workforce, is instrumental in the ability to take advantage of knowledge and knowledge spillovers. The authors forward Baumol's suggestion "that only countries with an adequate initial level of human capital endowments can take advantage of modern technology to enjoy convergent growth" (SW, 1995a:39) and posits that "...he therefore speaks of the "advantages of *moderate backwardness*" " (SW, 1995a:39, authors' quotation and italics).

Moderate backwardness refers to nations that, while certainly not advanced, are far enough along on the trajectory of modernization to have acquired some capacity to integrate with advanced nations along the lines of procuring and executing limited industrial-technological production processes with an acceptable level of efficiency given their lower level condition relative to the advanced nation loaning the expertise. The advantages of moderate backwardness, as conveyed by Sachs and Warner, is an argument positing “that middle-income developing countries can take advantage of their lag in technology to borrow from abroad” (SW, 1995a:40). According to Sachs and Warner, Baumol suggests that the poorest countries “are unable to bridge the gap in technology and knowledge” (SW, 1995a:40).

Contemporaneous with the *convergence club* hypothesis, but anchored more heavily in the vein of the quantitative economic sciences rather than the political economics of culture, is the hypothesis of *conditional convergence*. According to Sachs and Warner this related notion was introduced, presumably to, the economic development community by Barro and Sala-i-Martin and is understood as a theory “in which countries differ in their long-run per capita income levels, with each country tending to grow more rapidly the greater the gap between its initial per capita income level and its *own* long-run per capita income level” (SW, 1995a:40-authors’ italics). Whereas the *convergence club* hypothesis seems to relate classes of countries to each other, *conditional convergence* hypothesis seems behaviorally introverted in that it relates the long-run performance *potential* of nation’s economy to its own initial level of per capita

income. By accepting that each country will have its own trajectory for per capita income and that these trajectories, and therefore their outcomes, or steady states, will be different, the crux of the hypothesis is that the further a country has to go from its initial level of per capita income to its projected highest level, or its long-term equilibrium level<sup>53</sup>, the faster its economy will grow to reach that point. This is to mean the more “space” an economy has to grow e.g. “...the rate of growth is assumed to be an increasing function of the gap between the long-run per capita income level and the initial per capita income level” (SW, 1995a:40). Here it can now be understood that another point of relation between Baumol’s assertion of the *convergence club* hypothesis and Barro’s assertion of *conditional convergence* hypothesis is that both acknowledge limitations on growth given skill and capacity.

Though the assumption is maintained, the authors do acknowledge, later in their paper, that the long-term equilibrium level, and therefore the long-run per capita income level, “may itself be a function of the specific factor endowments of the country, for example the ratio of labor to land and other natural resources, as well as the *long-term* structure of trade policy itself” (SW, 1995a:53- authors’ italics). In other words, at a greater scale, there are many other influences that affect an economy’s potential income level and the pull on the data of structural variables, such as those noted above, being typically problematic, are normally granted. Therefore the integrity of the basic tenor of the assertions rest unaltered.

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<sup>53</sup> The phrase ‘projected highest level or per capita income’ is semiotically equivalent to “...long-term potential income” (SW, 1995a:41) which itself is semiotically equivalent to “...long-term equilibrium level” (SW, 1995a:53).

Intuitively it seems as though Romer's thesis could mechanistically explain, at least in part, Baumol's suggestion of a convergence club. Since "the poorest countries are unable to bridge the gap in technology and knowledge" (SW, 1995a:40) and "since their higher income would reflect higher levels of learning or human skills, which in turn would raise the future productivity of capital" (SW, 1995a:39) such would be functionally monotonic leading to a case in which "the rich countries could continue to stay ahead of the poor countries" (SW, 1995a:39). By this cascade, divergence among the world's economies and convergence among the wealthy economies would be effectuated. Though according to the authors the evidence may be contrasting, it does not seem that the convergence club and conditional convergence theses need be mutually exclusive as the convergence club would seem to explain Global North-South disparities while conditional convergence would seem to explain intra-class growth patterns. In tandem both theories would seem to explain the micro- and macro-level consequences of conflict-led development strategies over time.

Sachs and Warner report that in estimating a regression equation, which encompassed the initial level of human capital, Barro and Sala-i-Martin "...tend to find a negative and significant coefficient for initial income and significant coefficients on several of the structural variables" (SW, 1995a:340). According to the authors these findings support Baumol's like sentiment to Barro's<sup>54</sup> conclusion that "a poor country tends to grow faster than a rich country, but only for a given quantity of human capital; that is, only if the poor countries human

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<sup>54</sup> Barro, 1991. Economic Growth in a Cross Section of Countries". *Quarterly Journal of Economics*. 106(2):407-43.

capital exceeds the amount that typically accompanies the low level of per capita income” (Barro, 1991:409 as cited in Sachs and Warner, 1995:40). This empirical nexus aside, Sachs and Warner note that “Robert Barro, Gregory Mankiw, and Xavier Sala-i-Martin state that the “ the substantially different steady states...can reflect the effects of disparities in preferences and government policies on the savings rate, fertility, and the available production technology”<sup>55</sup> (SW, 1995a:40), all considered as structural variables which are proxies for the long-run per capita income level.

In sum, Sachs and Warner observed that their own finding of a widening gap between poor countries “...particularly those in sub-Saharan Africa” (SW, 1995a:38) and, even more specifically, the large cluster of sub-Saharan Africa nations that have experienced “negative per capita growth” (SW, 1995a:38) is explained by a corpus on non-convergence which is dominated by three related explanations on growth empirics: the *convergence club* hypothesis, and *β-convergence or conditional convergence*. The authors assert that because “they suggest that the poorer countries will be unable to close the gap with the richer countries” (SW, 1995a:41), the interpretations of the convergence club and conditional convergence overall “would be profoundly pessimistic though conditional convergence is ambiguous on this fundamental point” (SW, 1995a:41).

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<sup>55</sup> From authors see: Barro, Mankiw, and Sala-i-Martin, 1995:103. “Capital Mobility in Neoclassical Models of Growth”. *American Economic Review*. 85(1):103-15.



## **Implications of Conditional Convergence**

It is important to keep the operating interpretations in mind here, the first is that since “productive technology is intrinsically kind to the technological leader: the rich tend to grow richer”, the second is that “convergence is a fact of life, but only among countries with a sound human capital base for using modern technology” (SW, 1995a:41), and the third is the assertion that those countries currently poor already “have a low long-term potential income level”, though this may be overcome if such destitute economies instead become optimally poor, this is to lower the poverty floor thus widening the gap between where they are (current state) and the limit of where they could be (their long-run economic ceiling). Limits are erected by skill level, political-technological capacity, and to this Sachs and Warner include policy preferences.

Such an action would require a policy change and to this extent, Sachs and Warner reiterate that “countries do tend to grow faster the greater is the gap between their current income and their own long-run potential” (SW, 1995a:41) leading eventually to convergence proper (absolute). The authors further advocate that “if the low long-term potential income is due to bad policies, then convergence could still be achieved by policy changes” (SW, 1995a:41) and suggest that “the most parsimonious reading of the evidence is that convergence can be achieved by *all* countries, even those with low initial levels of skills, as long as they are open and integrated in the world economy.

Here it is clear that Sachs and Warner advocate their approach to conditional convergence that would beneficially bypass the highly noticeable,

errant symptom of asymmetric gross wealth accumulation captured by the convergence club phenomena. In fact, the very noticeability of the convergence club phenomena can be utilized as evidence that, fact of life or not, something must be done about world poverty. By fashioning policy mechanisms in a constrained political economic environment that assimilates rogue states and regulates global integration this can appear to be accomplished since some improvement, characterized as growth, will eventually occur.

With that, and to the extent of formally presenting the thesis of *Economic Reform and the Process of Global Integration*, Sachs and Warner “argue that the apparent differences in long-term income levels are not differences due to fundamental tastes and technologies, but rather to policies regarding economic integration” (SW, 1995a:41). This is to say that the authors are not counter to  $\beta$ -convergence but accept it to be a transition phase toward absolute convergence, which they assume to be the natural equilibrium. SW hold that those institutions and countries with the most successful experiences should not only take the lead in bringing this steady state into fruition but also should also be held responsible for sustaining such a state once it has been reached.

A subscription to their interpretation of global economic leadership entails that “the convergence club is the club of economies linked together by international trade, [and as noted earlier, by shared trench-experiences for and against each other]: thus the OECD, the European Community, the late-nineteenth century economies, the U.S. states and the Japanese prefectures” (SW, 1995a:41). Sachs and Warner’s interpretation also entails that the expertise of these time-

tested natural leaders exemplify “the spread of capitalism” (SW, 1995a:64) to the rest of the world. To this ultimate end, the authors advise that the “consolidation of the emerging global arrangements will require the wisdom and leadership of the leading democracies” (SW, 1995a:64).

With the understanding of why Sachs and Warner would pursue as fact the a rhetorical statement such as natural resources are bad for development, the following sections ‘Method and Message’ sections embody how their rhetoric was methodized.

One may find it helpful to read the following sections with a copy of *Economic Reform* along side.

### **III.A. The Method and the Message I: Convergence through Openness and Growth**

The authors made the point that in the post-war period some groups of countries liberalized earlier than other groups of countries along ideological lines. Those who liberalized earlier more commonly became part of a class of developed nations while those late liberalizers generally struggled and fell into the class of developing countries. To accommodate this political economic reality the authors searched for an association between openness and growth among a group of developing and a group of developed countries. Sachs and Warner identified a strong association within both groups and ran a Chi-square test for independence, in which the null hypothesis was that there would be no difference in growth rates

between the closed and open economies (SW, 1995a:36). The tug and pull of a global transition between capitalist and socialist modernization strategies is indicated by the observation that among the developed and developing classes there were both open and closed economies.

They reported finding evidence of convergence and were able to reject the null hypothesis with a high degree of certainty at  $p < 0.000$ . The authors reported their ability to show that the open economies within the developing group grew faster (4.49 percent per year) than the open economies within the developed group (2.29 percent per year). Also, the closed economies among the developing class grew at a slower rate (0.69 percent per year) than the closed economies of the developed class at 0.74 per cent per year (SW, 1995a:36). More in support of their position is the fact that the growth rates among closed economies between the developed and developing classes were very close (0.74 to 0.69) while on the other hand the open economies in the developing group grew over fifty percent faster than their counterparts among the developed class (4.49 to 2.29).

This growth-focused classification of the data "...suggests that within the group of open economies, both developing and developed, we should tend to observe economic convergence" (SW, 1995a:36). The authors explain this in yet another way in their Table 10 (p.36) when they show that of 15 countries which were always open, eleven countries had an average growth rate greater than three percent while seventy of those countries, classified as not always open, had an

average growth rate of less than three percent<sup>56</sup>. By such evidence the authors confidently report that open economies fair far better than closed economies in the long run and have especially highlighted the point as much in their statement that, “eleven of the fifteen open economies grew at more than 3 percent per year, while only four of seventy-four closed economies achieved such growth” (SW, 1995a:36)<sup>57</sup>.

In an additional layer of scrutiny, the authors add a total of six years to the curve, five years to the beginning of the period (from 1970 to 1965) and one year to the end of the period (from 1989 to 1990) thereby drawing in more data to the overall mean. While in doing this, the numbers of *always open* and *not always open* countries is reduced, but the pattern remains the same. For the period 1965 to 1990 the authors compare the annual growth rates of a group of forty always-closed developing economies and a group of always-open developing economies (SW, 1995a:36) to reinforce that the “...always-open economies outperformed the always-closed economies in every year” (SW, 1995a:37). Ultimately, Sachs and Warner allege that open economies are more resilient than closed economies, and

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<sup>56</sup> It should be noted that from the same table the authors show that the 4 countries which were always open of the 15 temporary liberalizers (presumably taken from a 72 country sample of developing countries found in Table 8, on page 34) had an average growth rate of less than 3 percent while 4 countries that were conversely not always open had an average growth rate greater than three percent. Though it is beyond the present scope and I would need to review the raw data set since these 8 countries were not identified, it would still be an interesting course of study to examine the socio-economic histories of these outlier countries for whatever insights could be gleaned about the cases for which success is met outside of normal conditions.

<sup>57</sup> In their research for *Economic Reform and the Process of Global Integration* the authors are ultimately manipulating a data set of 122 countries (see appendix for elaborations), and through a series of classifications that I must admit remain unclear to me (not unfounded as seasoned economic scholar had an exceedingly difficult time replicating Sachs-Warner regressions even with access to the data), are able to derive a list of 15 developing countries that have always been open relative to the 1970-89 period (and thus separate from the list of 8 developing economies that have always been open in Table 1-p22). This same classification and reclassification logic allows for the 74 *Not always open* countries noted in Table 10 covering *Growth and Openness in the Developing Countries* for 1970-89.

in fact convey that the lack of resilience among poor countries is responsible for the absence of convergence scaled world-wide.

In demonstrating this, the authors explain that while “the open economies were clearly more susceptible to the external shocks of the first half of the 1970s”, they nevertheless “bounced back” whereas the closed economies evidence a long-term slowdown in growth when comparing their average per capita growth rate of around 0 percent per year in the late 1980s in contrast with that of the open economies sitting around 5 or 6 percent per year at the end of the 1980s (SW, 1995a:37). The argument for open economies as more resilient is especially clear in that prior to the upsets in the first half of the 1970s, “the breakdown of Bretton Woods, worldwide inflation, and the OPEC oil price increases” (SW, 1995a:37), the open economies not only enjoyed an average per capita growth rate during the second half of the 1960s that was around 5 or 6 percent per year but also a return to stability. By the late 1980s that growth rate was reestablished after having dropped as low as 2 percent in around 1973-74.

For these reasons the authors assert that the “data suggest that the absence of overall convergence in the world economy during the past few decades might well result from the closed trading regimes of most of the poorer countries” (SW, 1995a:37). While overall convergence appeared absent what the authors did find was that the proportional income gaps found within restricted subsamples was indicative of convergent behavior among classes of countries; leaving a wide swath of disparity class to class.

## **Establishing Results :**

### **The Evidence for Convergence-Driven Leadership**

Sachs and Warner present the evidence for their iteration of conditional convergence in a series of tables whereby they disaggregate the initial income by growth (Fig. 3:38) data into groups of open and closed economies to give figures 4 and 5 (pgs. 42-43). They show that “*the open countries display a strong tendency toward economic convergence*” (SW, 1995a:41-italics), and that among these countries those having “initially low per capita income levels grow more rapidly than the richer countries” (SW, 1995a:41) thus exhibiting  $\beta$ -convergence, and that “the closed economies in figure 5 do not display any tendency toward convergence”. Referring back to the aggregate depiction in figure 3, the authors remark that the closed economies in figure 5 “are clearly the source of the failure of convergence noted [overall] in figure 3” (SW, 1995a:42). The tight clustering of predominately Latin-American and African countries depicted in figure 5, which is apart of a much larger sample, in concert with the assertion that these source economies<sup>58</sup> exemplify the problem of non-convergence, lend an exceptionally clear spatial conceptualization of the systemic socio-cultural and geopolitical histories of these regions as carefully laid out by Sachs and Warner<sup>59</sup>.

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<sup>58</sup> Those represented by name are the nations of: Sierra Leone, Angola, Niger, Chad, Central African Republic, Benin, Ethiopia, Guinea, Rwanda, Burkina Faso, Cameroon, Burundi, China, Botswana, Sri Lanka, Tunisia, Mozambique, Madagascar, Nicaragua, Ghana, Gambia, Haiti, Congo, Egypt, Algeria, Jamaica, Panama, Chile, Costa Rica, Brazil, Iran, Argentina, Iraq, Gabon, South Africa, Mexico, Hungary, Israel, Trinidad & Tobago, Venezuela, and New Zealand.

<sup>59</sup> These particular histories and economic trouble spots are covered under the *Macroeconomic Dimensions of Socio-politics* and *Socio-cultural Dimensions of Geopolitics* sections in the second part of the *Economic Reform* analysis.

Still the authors assert that “economic reforms take time to work, so that some countries that adopted outward oriented-market reforms in the late 1980s or early 1990s might not yet be enjoying high growth rates as a result” (SW, 1995a:44) of inferior policy decisions clearly evident as now “sufficient time has passed for us to see the effects of this fundamental policy choice on growth” (SW, 1995a:45). Additively, the authors convey that the early bird gets the worm and urges the benefits of rapid installation of their policy preferences as they enthusiastically persist that “even more striking, there is not a single country in our sample (which covers 111 countries and approximately 98 percent of the non-communist world in 1970) which pursued open trade policies during the entire period 1970-89 and yet had per capita growth of less than 1.2 percent per year” and further still, “and not a single open developing country grew at less than 2 percent per year [...]!” (SW, 1995a:42). In making the case that a policy of free trade is the driver of growth Sachs and Warner highlight the East Asian economies as prime examples of growth sustained by an outward-orientation.

### **Sachs and Warner on the Trade-Driven Economic Success of the East Asian Economies**

At the time of Economic Reform and the Process of Global Integration in 1995, there was a very fresh and vibrant dialogue among the international macroeconomic community regarding the East Asian Tigers<sup>60</sup>. Complementary to

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<sup>60</sup> These are the economies of Hong Kong, Singapore, S. Korea, and Taiwan, which so shocked economic society with their miraculously expedient transition from developing to advanced developed nations resulting from a free-trade orientation. East Asian neighboring countries which acted to follow in these footsteps are



this ongoing discussion Sachs and Warner note that, "...[s]ome of the first closed economies open to trade were three East Asian countries: Taiwan (1963), South Korea (1968), and Indonesia (1970)" (SW, 1995a:26). Fully engaging this discussion the authors remark that, "...[i]t has become fashionable to argue that East Asian countries are not really open or market-oriented, and that, in fact they systematically "got the prices wrong" to spur industrial growth" (SW, 1995a:32)<sup>61</sup>. In capitalizing upon the ripe opportunity to make their very point the authors retort, "[I]t is surely true that Korea, Taiwan, and Indonesia are not laissez faire, but they and their neighbors in Southeast Asia, Thailand and Malaysia, have been more open to trade than other developing countries based on objective indicators of trade policy" (SW, 1995a:32), referring to data classifications provided by UNCTAD. Sachs and Warner agree with assertions that trade policy decisions are the reason for the Asian successes. In supporting this position the authors again refer to the UNCTAD data noting "...[a]ll of the East Asian economies have low or zero BMPs [black market premium]; all but Thailand have low tariff rates; and all but Taiwan have low NTB [non-tariff barriers] coverage. Moreover, the Thai tariffs and the Taiwanese NTBs are moderate, not extreme" (SW, 1995a:32).

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known as the Tiger Cub economies or the newly industrializing economies (NIEs), namely: Indonesia, Malaysia, Phillipines, and Thailand. There are many reasons, beyond rigid adherence to Smithian doctrine, postulated for such success including low or no external debt at the start of managing their open economies and significant investment in human capital (primary and secondary education). See: Page, John. "The East Asian Miracle: Four Lessons for Development Policy". *NBER Macroeconomics Annual* 1994, Volume 9. MIT Press. January 1994. (219-282). <<http://www.nber.org/chapters/c11011.pdf>>. Accessed 9 October 2013.

<sup>61</sup> The authors refer their readers to Wade (1990) with regard to Hong Kong, S. Korea, Singapore, and Taiwan, and Amsden (1989) particularly with regard to S. Korea. I: Wade, Robert. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*. Princeton, N.J.: Princeton University Press. 1990. II: Amsden, Alice H. *Asia's Next Giant: South Korea and Late Industrialization*. New York.: Oxford University Press. 1989.

## Sachs and Warner on China's Success

In 1978 with "...three quarters of the labor force in peasant farming" China was a "...very poor economy" but, as Sachs and Warner go on to assert, China experienced "...a remarkable export boom, based heavily on labor-intensive operations", though no one could make the authors' own case better than Shang-Jin Wei<sup>62</sup>; whose concluding remark, an excerpt warranting a full quotation as a footnote in SW's text, presented "...clear evidence that trade liberalization played an important role in China's growth" (SW, 1995a:46):

"I have found some clear evidence that during 1980-90 more exports are positively associated with higher growth rates across Chinese cities. In the late 1980s, the contribution to growth comes mainly from foreign investment. Furthermore, the contribution of foreign investment comes in the form of technological and managerial spillovers across firms as opposed to an infusion of new capital. Finally, the superb growth rates of coastal areas relative to the national average can be entirely explained by their effective use of exports and foreign investment."

(Wei, 1995, p.74. as quoted in Sachs and Warner, 1995:46)<sup>63</sup>.

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<sup>62</sup> From authors see: Wei, 1995. "The Open Door Policy and China's Rapid Growth: Evidence from City-Level Data". In *Growth Theories in Light of the East Asian Experience*, edited by Takatoshi Ito and Anne O. Krueger. Chicago. University of Chicago Press.

<sup>63</sup> It should be noted that Wei's commentary corroborates Naomi Klein's assertion that the China's Tiananmen Square incident of 1989 opened the door and, as a measure of enforcing Friedman-consulted free-market installations, was held as necessary to development by the Xiaoping government, since "...[i]n the three years after the bloodbath, China was cracked open to foreign investment, with special export zones

The authors convey that within the development community it is well known that China enviably executed an unorthodox “two-track approach” which consisted of “...decontrol of the peasant sector and continued control of the state sector” (SW, 1995a:46) which, according to Wei, Sachs, and Warner, is clearly a success however imperfect it maybe<sup>64</sup>. After all, not only did China’s “...currency remained inconvertible and many state enterprises remain subject to rationing of imports” (SW, 1995a:46), but it also met Sachs and Warner’s own criteria for classifying a closed economy e.g. “...high black market premiums in the yuan, extensive reliance on trade quotas, and a socialist ownership structure” (SW, 1995a:46). Additionally, the export boom “...did not solve the many problems in the poor performance of the state-owned sector” (SW, 1995a:46), presumably referring in part to the fact “...that many state enterprises remain subject to rationing of imports” (SW, 1995a:46) as the authors had already pointed out. Nevertheless, Sachs and Warner “...believe that China’s success is strongly related to its particular economic structure at the onset of its market reforms at the end of the 1970s” (SW, 1995a:46). Given China’s socialist ownership structure the authors explain that the “...essence of Deng Xiaoping’s reforms at the end of the 1970s was to free the peasant economy from state controls, even while maintaining the state’s

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constructed throughout the economy” (Klein, 2007:239). “The Shock Doctrine: The Rise of Disaster Capitalism”. Picador. New York, New York.

<sup>64</sup> The authors explain that “...[s]ome analysts have also argued that its boom is fragile and could still be stopped by the macroeconomic instability characteristic of many economies part way between planning and a market economy” (SW, 1995a:46-re: Sachs and Woo, 1994), that is as a “developing third world” (SW, 1995a:1). Nevertheless, Sachs and Warner’s primary assertion that trade liberalization played an important part in China’s growth, and by extension, the East Asian successes, is otherwise robust. From authors see: Sachs and Woo, 1994. “Structural Factors in the Economic Reforms of China, Eastern Europe, and the Former Soviet Union”. *Economic Policy*. (April):102-45.

grip on the non-peasant, state owned sector (which covered just 18 percent of the labor force)” (SW, 1995a:46)<sup>65</sup>.

Essentially, the authors appear to convey that the Chinese governmental elites<sup>66</sup> made available land rights, decreasing peasant farming communes to the end of liberating the country’s labor force for increased industrial production<sup>67</sup>, which remained controlled by the state that then entered into joint ventures with foreign firms offering MNCs especially unparalleled labor force but also competitive forward linkages, i.e. production finishing, and transportation capacity. The application bearing on international trade was that “...the economy was essentially liberalized for nonstate firms, especially those operating in the Special Economic Zones (SEZ) in the coastal areas” (SW, 1995a:46). Presumably Hong Kong, which at the time was British Commonwealth having only been relinquished to China in 1997, and according to Klein, was held up by Friedman an exemplar “...zone of pure capitalism that [he] long admired for its “dynamic, innovative character that has been produced by personal liberty, free trade, low taxes, and minimal government intervention”” (2007:233). Wei particularly praised these zones exclaiming that, “...[t]he superb growth rates of coastal areas relative to the national average can be entirely explained by their effective use of

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<sup>65</sup> It is well known among those in the neo-liberal development community that Deng Xiaoping was so “...enthusiastically committed to converting to a corporate-based economy” that “...his government invited Milton Friedman to come to China and tutor hundreds of top-level civil servants, professors, and party economists in the fundamentals of free-market theory” (Klein, 2007:231).

<sup>66</sup> A class Naomi Klein refers to as the “Chinese Politburo” (2007:233), of which the uppermost of the elite were known as the “princelings” (2007:240), who “...wanted to open the economy to private ownership and consumerism while maintain its own grip on power—a plan that assured that once the assets of the state were auctioned off, party officials and their relatives would snap up the best deals and be first in line for the biggest profits” (2007:233).

<sup>67</sup> China is now one of the world’s largest import markets for foodstuffs and holds numerous land leases in Africa specifically for agricultural production.

exports and foreign investment.” (Wei, 1995, p.74. as quoted in Sachs and Warner, 1995a:46). The authors explain that the benefit of these zones was that “...nonstate enterprises (including joint ventures and foreign firms) were generally able to import their inputs nearly duty free, and to export processed goods to world markets” (SW, 1995a:46), effectively making them pure free-trade zones. At liberty to be more forward, Klein directly assesses that “...[n]o country offered more lucrative conditions than China: low taxes and tariffs, corruptible officials and , most of all, a plentiful low-wage workforce” (2007:239).

### **Sachs and Warner on the Botswanan, Hungarian, and Tunisian Exceptions**

While these three countries, like China, also had per capita growth of over 3 percent per year during the studied period the authors convey that short of Botswana, their exceptionality is more technical than extraordinary.

For instance, in terms of the black market premium (a proxy measure for exchange control), Botswana barely qualified having “...failed to qualify [...] for the 1970s, but did qualify for the 1980s” (SW, 1995a:45)<sup>68</sup>. The Hungarian and Tunisian exceptions are even more technical than Botswana since “...their successful growth is more apparent than real” allowing for a “...relatively

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<sup>68</sup> It should be said that, Botswana’s failure to qualify for the 1970s due to meeting the black market premium, a criteria which evinces “...the rationing of foreign exchange” (Sachs and Warner, 1995:25), is less likely to be about import control, unlike in the case of China, than related to the fact that “...until the 1970s, international aid [...] dominated the government budget and was the main source of foreign exchange” (Lewin, 2011:81), which is inherently rationed prior to delivery and is expected to be so post-acceptance. Lewin also points out that the diamond element of the mineral sector “...began to take off and soon became the dominant sector” at that time, with “...[i]ncome growth and the growth of the mining sector [having] accelerated in tandem from about 1974/75 until recently” Lewin, 2011. “Botswana’s Success: Good Governance, Good Policies, Good Luck”.

straightforward” accounting of their marginal status as an exception. Very simply, “...[b]oth countries pursued statist development strategies that produced growth in the 1970s and financial crises in the 1980s and 1990s” (SW, 1995a:45). As these financial shocks destabilized the governments, both countries experienced “...a serious downturn in growth at the end of the 1980s”. Thus ultimately, given a “...slightly longer time period, these countries would not look like successes” (SW, 1995a:45) but instead the products of an inferior approach to development.

The authors convey that Botswana is much more of a legitimate exception since “...[o]verall, [...] the policies have been relatively open, especially in the 1980s” (SW, 1995a:45) and for the remainder of the period “[i]t passed all other criteria” (SW, 1995a:45). Additionally the research team points out that “...since around 80 percent of Botswana’s exports are diamonds, and remarkably a small proportion (less than 5 percent) of the labor force is in agriculture, Botswana avoided the anti-agricultural biases that affected most of sub-Saharan Africa” (SW, 1995a:45)<sup>69</sup>. Particularly on Botswana, it is important return to Sachs and Warner’s earlier inclusion of Rogowski’s work examining relative factor intensities. There are many reasons the success of Botswana is remarkable but the authors’ assertion that a small proportion of the labor force is in agriculture will be more fully treated since in the first place “...Botswana is a sparsely populated country” (Lewin, 2011:81) with an exceptional colonial history that lends an

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<sup>69</sup> Indeed, Botswana is emblematic of a sub-Saharan African nation that has avoided the ‘resource curse’.

uncomplicated explanation to how Botswana avoided the anti-agricultural biases<sup>70</sup> dissimilarly from many others on the continent.

According to the Sachs and Warner, Rogowski, namely, found that in “...Latin America and in Africa, where labor is scarce and land is abundant [...] land owners are on the side of free trade (to raise the price of foodstuffs), and urban workers should be interested in protection (against the import of labor intensive goods and the export of foodstuffs)” (SW, 1995a:20). Botswana is different in that, similar to Hong Kong, it too was a British protectorate, established in 1885 as the Bechuanaland Protectorate to serve as an impediment to German imperial expansion<sup>71</sup>. While British expenditures on the Bechuanaland acquisition was mainly for defense, little else was done in the way of management and effectively a low-impact policy, termed “benign neglect” by historians, was assumed in hopes of sparing the British colonial empire’s already stretched budget (Beaulier, 2003:229). Over time, this lead to a cultural infusion that translated into a post-independence regime, Britain officially recognized Botswana’s independence in the spring of 1965 (Beaulier, 2003:230), which “...respected the law and property and was dedicated to development” (Lewin, 2010:85). Because Britain did not settle its Bechuanaland Protectorate, there was no need to establish institutions that would have operated under mechanisms to eventually have been incredulously usurped and revived in the post-independent

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<sup>70</sup> Anti-agricultural biases refer to Sachs and Warner’s earlier statement that, “...wartime controls on agriculture became postwar mechanisms of a profound anti-export bias” (SW, 1995a:19) where anti-agricultural and anti-export represent the same bias as it was cocoa, ground nuts, oil palm being exported in support of the Allies, “particularly, the United Kingdom” (ibid.).

<sup>71</sup> Beaulier, 2003. “Explaining Botswana’s Success: The Critical Role of Post Colonial Policy”. *Cato Journal*. 23(2). (Fall). Pp. 227-240.

state, as Sachs and Warner would have the matter understood. There were no “...wartime controls on agriculture” (SW, 1995a:19), as Britain took no resources, for which the “...original intentions were subverted” (SW, 1995a:19).

Case in two points, firstly, in 1965 beef was “...the country’s main export and largest sector” contributing almost 40 percent of GDP (Lewin, 2010:81). Since “...many of the tribal leaders who helped usher in modern government were also large cattle owners” (Lewin, 2010:85) it is reasonable, and indeed historically expected, that “...the government established respect for property rights and the rule of law” (Lewin, 2010:82) even before the discovery of diamonds. Therefore in regard to Rogowski, the government was already effectively on the side of free trade. Secondly, in Botswana “...government remains the largest employer” mainly in the production of non-traded goods (Lewin, 2010:87). It therefore intuitively seems that urban workers in Botswana would less likely be interested in protection given the government is appreciative of free-trade. If this can be said to be true, Rogowski may not hold for Botswana<sup>72</sup>. While Lewin credits Khama’s decision with “...limiting the possibility of conflict” (Lewin, 2010:85), it is a very likely a factor that Botswana’s relatively homogeneous population can be also be credited for having reductive effect on potential tensions, from the perspective of ethnic polarization, since many such conflicts in the developing world often include ethnic strife as well as class struggle.

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<sup>72</sup> In addition to Beaulier (2003), AJR in fact authored the seminal narrative on Botswana’s success against which Beaulier (2003) provides cross-examination. As cited by Beaulier refer to: Acemoglu, Johnson, and Robinson, (2003). “An African Success Story: Botswana” In D. Rodrik (ed.) In Search of Prosperity: Analytic Narratives on Economic Growth, 80-119. Princeton, N.J.: Princeton University Press. (80-119).



Additionally, it is generally agreed that Botswana's first president Seretse Khama, was forward thinking because "...even before independence, Khama's party [...] wrote into its platform its intention to assert the state's rights to all mineral resources" (Lewin, 2010:85). And, as Lewin aptly points out, "[a]lthough the largest diamond deposits were discovered in Khama's own district [...] he chose the country over his tribal land" (Lewin, 2010:85). Thus it may be that "...[s]ocial science cannot rigorously assess the relative importance or contribution of leadership in the evolution of successful institutions" (Lewin, 2010:85) still, on the aspect of leadership thesis asserts that leaders, held to account or not, make and accept suggestions for economic policies, therefore the consequences are the products of decision makers not immeasurable miasmas; though the complexities of society can certainly, and still do rival the confounding nature of miasma as it was in its accepted time.

### **Sachs and Warner's Regression Analysis and Convergence**

Through a regression analysis quantifying the "...relationship between initial income in 1970 and subsequent growth between 1970 and 1989" (SW, 1995a:46), the authors made several findings regarding openness and growth trends as regarding convergence. The first three interpretations summarized above were related to the contemporary exceptions and technicalities of the openness-equals-growth school. The remaining outcomes are summarized and relate specifically to each of the formal regressions.

Fundamentally, the authors found that for the entire sample of 117 countries there was an “...absence of convergence” (SW, 1995a:46) which is consistent with the claim that “...in recent decades, there have been no overall tendency for the poorer countries to catch up, or converge, with richer countries” (SW, 1995a:3). Consistent with the *convergence club* thesis, wherein Baumol suggests that poorest economies are unable to converge with the wealthier economies and are thus left out of the convergence that is occurring among the wealthy economies, Sachs and Warner reported that they were able to “...confirm the absence of convergence among the non-qualifying countries” (SW, 1995a:47), that is the closed countries. The authors do find “...strong evidence of convergence within the set of open countries” (SW, 1995a:47) which is consistent with established claims of *conditional convergence (beta)*, whereby it is a given that countries within a class (open/closed, rich/poor) differ in their potential per capita income levels over the long-run but that the greater the gap between a country’s initial per capita income level and its potential per capita income level over the long-run, the more rapid its growth. To this end the data suggested that “...each percentage point rise in per capita income in 1970 reduces subsequent annual growth by 0.014 percentage points” while “each doubling of 1970 income reduces annual growth by 0.95 percentage points” (SW, 1995a:47). Taken together this evidence would support an intuitive understanding as explained on page 31 about the self-reinforcing dynamic of the convergence club and conditional convergence theses.

In focusing on the "...importance of openness for growth" (SW, 1995a:47) the authors tested the robustness of openness against "several other possible explanatory variables" (SW, 1995a:47) as embedded in "...Barro's growth regression, since it is particularly well known" (SW, 1995a:47)<sup>73</sup>. Sachs and Warner twice replicated the "...Barro regression on cross-country growth", firstly replicated with adaptations for their sample and time period, then iterated again to include "...a dummy variable for openness [*OPEN*...]" (SW, 1995a:47).

The authors found that the first replication performed as expected "...showing conditional convergence [...], positive (although not significant) effects of educational attainment, positive effects of investment-to-GDP ratio, and negative effects of measures of political instability" (SW, 1995a:47). This would suggest that rich countries are getting richer, higher levels of educational attainment as well some appropriate level of investment do contribute to the 'club'-creating positive feedback loop, and that political stability is a factor of sustained growth. The second iteration showed that when *OPEN* was added the open economies grew "...on average, by 2.45 percentage point more than closed economies, with a highly statistically significant effect" (SW, 1995a:47). When openness is taken into account "...the effect of investment declines and the initial education levels are even less significant" (SW, 1995a:47). This would indicate that superstructure, that is, the operating economic environment and the ideology that guides it (policy), is far more important than not only the mechanisms operating within it (quality and quantity of human capital) but also the ideologies

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<sup>73</sup> From authors see: Barro, 1991. "Economic Growth in a Cross Section of Countries". *Quarterly Journal of Economics*. 106(2):407-43.

induced in response to the governing mechanism overall. As Sachs and Warner point out, "...[t]his is consistent with our view that the growth rate over this period was determined less by initial human capital levels than by policy changes" (SW, 1995a:47).

While the authors never underestimate the role of policy [openness vs. self-sufficient] in growth decisions, they do acknowledge that other researchers, namely "...Surgit Bhalla, J. Bradford DeLong and Lawrence Summers, David Dollar, and Ross Levine and David Renelt" (SW, 1995a:47)<sup>74</sup>, produced earlier work consistent with the assertion that policy is more important than stock. Even though, more specifically, DeLong and Summers, and Levine and Renelt respectively used "...several measures of outward orientation and price distortions" (SW, 1995a:47) and availed themselves of data calling for "...the black market premium, the number of revolutions and coups, a socialist dummy, a civil liberties index, and measures of openness based on Leamer (1988)" (SW, 1995a:47) for their marginal contribution to the rate of growth, Sachs and Warner point out that "none used these variables to sort countries into groups and examine the groups separately" (SW, 1995a:47). The authors recognize this as a keystone finding since to their knowledge "...no earlier studies have pointed out that convergence applies to the *worldwide* subset of open economies" (SW, 1995a:50, authors' italics) in addition to the fact that they found "...no evidence

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<sup>74</sup> From authors see: Bhalla (1994). "Freedom and Economic Growth: A Virtuous Cycle". Paper prepared for the Nobel Symposium on Democracies, Victory, and Crises. Uppsala University, Sweden, August 27-30; De Long and Summers (1991). "Equipment Investment and Economic Growth". *Quarterly Journal of Economics*. 106 (2):445-502; Dollar (1992). "Outward-Oriented Developing Economies Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-1985". *Economic Development and Cultural Change*. 40(3):523-544; Levine and Renelt (1992). "A Sensitivity Analysis of Cross-Country Growth Regressions". *American Economic Review*. 82(4):942-63; Leamer (1988). "Measures of Openness". In *Trade Policy Issues and Empirical Analysis*, edited by Robert E. Baldwin. Chicago: University of Chicago Press.

of significant interactions between the openness variable and the other regressors that would diminish the explanatory power of openness” (SW, 1995a:50). The authors convey that while the earlier studies did use a “...Barro-style cross-country growth equation” (SW, 1995a:47) these researchers did not explicitly test openness as a causal factor as they did in their “...construction of a single indicator measure of openness” (SW, 1995a:50); an approach that differentiates their own treatment of the data from prior research. Additionally, the fact that by effectively prioritizing openness as having a relationship to growth causatively, they were able to examine “growth performance *within* a subset of open economies, as well as between closed and open economies” (SW, 1995a:50- authors’ italics).

It is this point, particularly, that establishes Sachs and Warner’s assertion that openness leads to growth. That is, since openness leads to inclusion in the convergence club, after which access to growth follows, the policy choice of exempting ones country from inclusion would then be detrimental to growth, and such a choice is ultimately the mark of inferior economic leadership in need of appropriate guidance. Therefore one can observe that regressions 4 and 5 appear to establish a case for political-academic intervention. It is important here to recall the findings of regressions 4 and 5 respectively. The first was to show that Barro’s regression on cross-county growth, taking into account established growth factors such as conditional convergence, educational attainment, investment, and political stability, was replicable and performed with expected results. The second regression was to show that when Sachs and Warner’s singular indicator of

openness was added to the basic Barro regression the other indicators of growth were relatively less important than openness for growth.

The current thesis posits that these regressions and their underlying factors contribute to the empirical-ideological backbone of Sachs and Warner's seminal contributions to the 'resource curse' theory as they "...regard the issue of appropriate growth-oriented policies for resource-abundant countries to be an open and important topic for further analysis" (SW, 1995b:23), Otherwise lending justification for political-academic intervention.

In a dovetailing return to summarizing Sachs and Warner's regression analysis with the political constraints of resource-abundant countries, the above-mentioned rationale for intervention is further supported by the authors' sixth regression which included a dummy variable "...*POL*, to account for extreme political conditions detrimental to long-term investment" (SW, 1995a:50). More particularly these conditions are characterized as "...extreme political repression and unrest" (SW, 1995a:49) associated with "...a socialist economic structure [...], revolutions, coups, chronic civil unrest, or a prolonged war with a foreign country that is fought on domestic territory [...], and extreme deprivation of civil and political rights according to the Freedom House index" (SW, 1995a:50)<sup>75</sup>. The authors reported that "...the *POL* variable is statistically significant at the 10 percent level (t-1.986), suggesting that property rights, freedom, and safety from violence are additional determinants of growth" (SW, 1995a:50). Again this

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<sup>75</sup> The Freedom House index is reported by McMillan, Rausser, and Johnson (1994). From authors see: "Economic Growth, Political Civil Liberties". Occasional Paper 53. San Francisco: International Center for Economic Growth.

information is consistent with "...Barro, Bhalla, and Jakob Svensson" (SW, 1995a:50)<sup>76</sup>. The authors note that, "...in other regressions, not reported here, we have experimented with the three individual items in the *POL* index, and have found that each one plays a role in the growth process" (SW, 1995a:50).

In fact these regressions are reported in Sachs and Warner's *Natural Resource Abundance and Economic Growth* (1995b) and the representative concerns are operationalized in the variables REVCROUP, ASSASSP, RL82, and DTT7189 covering the "...average number of revolutions and coups over the period 1970-1985, [...] the average number of assassinations per million persons over the period 1970-1985, [...] the rule of law index in 1982" (SW, 1995b:31) and "change in the log of external terms of trade between 1971 and 1989" (SW, 1995b:43) where the last variable relates to Prebisch's<sup>77</sup> self-sufficiency premise, declining terms of trade, and thus presumes a characterization of socialism. The items of the *POL* index, and the concerns operationalized therein, relate only to the closed economies as the authors note that "...the set of countries with *POL*=1 is a *subset* of the closed economies. Therefore the use of the *POL* variable as an additional criterion to classify countries would give the same set of countries as using the *OPEN* variable alone" (SW, 1995a:50- authors' italics). Meaning as a tool of classification between open and closed economies the *POL* variable would just as accurately delimit closed countries, including those in some form of transition as marked by "...annual inflation rates above 100 percent for any year

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<sup>76</sup> From authors see: Svensson, 1994. "Investment, Property Rights, and Political Instability: Theory and Evidence". Seminar Paper 574. Stockholm: University of Stockholm, Institute for International Economic Studies (July). Also from authors see: Alesina, et al., 1992. "Political Instability and Economic Growth". Working Paper 4173. Cambridge, Mass.: National Bureau of Economic Research (September).

<sup>77</sup> And Singer, but the authors focus on Prebisch namely.

between 1970 and 1989” (SW, 1995a:50), as the *OPEN* variable would. The major definitional difference between the *POL* index and Sachs and Warner’s criteria for qualifying closed economies is the scale at which they influentially operate the most.

Going back to the understanding of a guiding superstructure and its subordinate operational mechanisms as a catalyst for the long-run micro- and macro-level consequences of conflict-led development strategies mentioned earlier, the *POL* index explains the subordinate operational mechanisms that lead to micro-level (domestic, nation-level) consequences while the qualification criteria isolate the club-countries as those for which the closed trade criteria (nontariff barriers (NTBs) covering 40 percent or more of trade, average tariff rates of 40 percent or more, a black market exchange rate that is depreciated by 20 percent or more relative to the official exchange rate, on average, during the 1970s and 1980s, a socialist economic system, and a state monopoly on major exports) have the greatest effect on their sustained growth. As the authors point out, "...since the value of trade liberalization generally depends on the openness of potential trade partners" (SW, 1995a:14) the more countries determined, for any reason, to liberate themselves first economically through a closure policy, and secondly with an aim to then do business, after having obtained some measure of economic or trade partner parity, under these conditions it is clarified how the value of the concept of trade liberalization may be highly dependent upon timing, which is the assertion Sachs and Warner make.



Timing is then an imperative factor which would make the costs of forced entry, however conceived and implemented, both reasonable to the goal-oriented and ultimately warranted. Thus operating through the channel of replicability, extracting value from the concept of trade liberalization is tangibly worth substantially more than the warrant and the transaction costs of forced entry. Further if new markets are unavailable because of trade closure policies than the concept of free trade would suddenly be highly and necessarily undervalued. This appeared to be the risk as "...various forces produced an overwhelming turn toward socialism or SLI in the developing world during the 1940s and 1950s, which was only gradually reversed over the next forty years" (SW, 1995a:21). Taking into account the importance of timing, the authors appear to grasp these risks in their remark which underlines their sub-section header, *The Classification and Timing of Trade Policies*, "according to our classifications, [...], seventy-eight developing countries outside of the Soviet bloc chose some form of inward-looking development strategy in the postwar period" (SW, 1995a:21), this is a significant closure of the world market.

Recalling the discussion from page 23, and in the context of the results summarized on page 24 of this text, Sachs and Warner via Ronald Rogowski (1989), author of *Commerce and Coalitions: How Trade Affects Domestic Political Alignments*, assert that "...the labor-to-land ratio has been a determinant of the timing of liberalization among developing countries" (SW, 1995a:51), as the authors found "...statistical evidence that a high population-to-land ratio raised the probability of an early trade liberalization" (SW, 1995a:33). In the seventh

regression, rather than testing the ratio to see if it was a determinant of the timing of liberalization among developing countries as they did earlier, the authors included the ratio to test whether openness was acting as a proxy for the influence of other factors or acting as a possible “independent determinate of growth” (SW, 1995a:51) and found that the ratio was insignificant, though “...the openness variable maintains its magnitude and statistical significance” (SW, 1995a:51). That is to say Sachs and Warner found Rogowski’s labor-to-land ratio to be a determinate of early trade liberalization but not an independent determinate of growth. As this data indicates, an affirmative causal relationship can not be established between a high labor-to-land ratio, growth, and early trade liberalization nor can one be established between a high land-to-labor ratio, low or inverse growth, and late trade liberalization, therefore no claims of geographic predisposition can be made without a forceful air of bias as exemplified by SW’s inclusion of Bodin’s sentiment that “...men of fat and fertile soil, are most commonly effeminate and cowards, whereas contrariwise a barren country makes men temperate by necessity, and by consequence careful, vigilant, and industrious” (as cited in SW, 1995b:4). After the inclusion of this single sentence, the authors move on to an extended discussion of the indirect adverse growth effects associated with poor policies, i.e. protectionist, having caused slow capital accumulation. In effectively harkening back to, as well as reinforcing this assertion, SW note in relation to *Natural Resource Abundance and Economic Growth*, that “[a] recent and fascinating paper by Berge et. al. (1994) is similar in motivation and spirit to this paper, and also points to the adverse role of natural

resource endowments (measured mainly by land and population density) on growth and manufacturing exports” (1995b:3)<sup>78</sup>. Still indirectly related, the authors add that they have found “...strong evidence that protectionist trade policies reduce overall growth when controlling for the other variables” (SW, 1995a:51)<sup>79</sup>.

The assertion of the importance of the labor-to-land ratio is that a high labor-to-land ratio is more likely to lead to faster liberalization, since “...workers would tend to favor free trade” (SW, 1995a:20), while the converse is also true, that a high land-to-labor ratio is more likely to lead to prolonged attempts at self-sufficiency since “urban workers should be interested in protection” (SW, 1995a:20). The assertion supports Sachs and Warner’s own contention that “...[p]ostwar governments have tended to respond more to labor interests than land interests” (SW, 1995a:21).

It is important here to note the authors’ linguistic treatment of the Asian countries, characterized as having a high labor-to-land ratio, to additionally being held in high esteem, in contrast to the Latin American/African blocs, characterized as having a high land-to-labor ratio, to additionally being held as inferior due to their development choices<sup>80</sup>. When discussing what are effectively the Asian countries, Sachs and Warner refer to “workers” but when discussing

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<sup>78</sup> See: Berge, K. et. al. “Trade and Development Strategy Options for the Poorest Countries: A Preliminary Investigation”. *Institute of Development Studies Working Paper 12*. December, 1994.

<sup>79</sup> I would ask whether slow growth is actually reduced growth. Where slow growth still implies growth, negative growth on the other hand, implies reduced growth.

<sup>80</sup> The authors especially draw this comparison forth in *Natural Resource Abundance and Economic Growth (1995b:23)*, when noting that “...there are benefits from good policies regarding natural resource exploitation. Compare, for example, the experiences of the primary producers in Asia, namely Malaysia, Indonesia, and Thailand with those in Africa (see Romer, 1994)”.

what are effectively the Latin American/African countries the Sachs and Warner refer to “urban workers”. As noted earlier the word “urban” as a noun, according to the context of the development literature overall, indicates where the central governing body is located but as an adjective, is associated with corruption. Therefore “urban workers [...] interested in protection” infers corrupt government or bureaucracy.

This point is made more clearly by the authors’ remark “...[i]n many parts of the developing world, especially Latin America and Africa, political power has been disproportionately concentrated in urban areas” (SW, 1995a:21). Sachs and Warner make no such association or inference of the Asian country’s economic leadership. Because, as Sachs and Warner assert, “...[p]ostwar governments have tended to respond more to labor interests than land interests” (SW, 1995a:21), what is ultimately conveyed is that the Asian countries acted responsibly and employed their constituents while the Latin American/African, in the larger scope of the ‘resource curse’ mainly African, countries acted irresponsibly and only took care of themselves. Though corruption in among the Tiger-Cubs is well known given China’s Xiaoping and princelings, Indonesia’s Suharto, Marcos of the Philippines or even more recently than he, Joseph Estrada. At this point it would appear a sacrilege to mention the corrupt leaders in the Eastern European bloc, as most certainly the Sachs and Warner neglect to do so.

Here one can observe the anticipation of African countries as a model of corruption and rent-seeking behaviors, one of the key pillars in the quest to solve the ‘resource curse’. This thesis does not assert that corruption or rent-seeking is

not a problem, especially among African nations, only that African nations are not especially guilty of taking advantage of the behavioral incentives that would appear to be inherent in the system and mechanisms of capital mobility and speculative capital. Very few nations that have taken steps toward free-market capitalism, for whatever reason, failed to take advantage of these highly enriching opportunities<sup>81</sup>.

While convergence, openness, and political conditions are understood to have direct growth effects, Sachs and Warner also argue that “...*indirect* adverse growth effects”, as a result of slower human and physical capital, is expected since “...poor trade policies might also affect the rates of investment relative to GDP and the rates of human capital accumulation”(SW, 1995a:51). In regressions 8-10 the authors checked whether “...open and closed economies differed systematically in the rates of capital accumulation” (SW, 1995a:51) after controlling for initial income. Overall SW found that, regarding regression eight, openness leads to increased investment as indicated by “significantly higher investment-to-GDP ratios” and an investment ratio increase of “an average of 5.4 percentage points” (SW, 1995a:51), in addition to the fact that “interestingly, there is also some evidence that richer countries have higher investment rates than poorer countries” (SW, 1995a:52).

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<sup>81</sup> The world has sooner seen upright leaders assassinated. Indeed entire nations have been built on morally reprehensible but profitable behavior. In a system based on competition, getting ahead is what matters, as monotonic functions will kick-in and virtually assure the player stays ahead.

With regard to regressions 9 and 10, the authors hypothesized as to whether “the increase in educational attainment between 1970 and 1985 was different for the two subsets of countries” (SW, 1995a:52). In effect, they were unable to evince that the closed economies, generally poor, did not do better at acquiring education and accumulating human capital, i.e. were less likely to attain education, relative to the open economies, generally rich. But only because of the “significant negative sign on initial income in both regressions” (SW, 1995a:52) were they able to say that “it is clear though, that the more developed economies had less improvement in educational coverage than did the poorer countries” (SW, 1995a:52). In their words, “we find no evidence that the closed economies had less improvement in the coverage of primary and secondary education than did the open economies” (SW, 1995a:52).

This intuitively makes sense since wealthy countries with some of the highest levels of educational attainment would have far less additional room to improve as compared to a poor country at the lowest levels of educational attainment, which would have plenty of space to reach those higher levels. This is consistent with the *conditional convergence* hypothesis in that, as stated earlier “the crux of the hypothesis is that the further a country has to go from its initial level of per capita income to its projected highest level, the faster its economy will grow to reach that point. This is to mean the more “space” an economy has to grow e.g. “the rate of growth is assumed to be an increasing function of the gap between the long-run per capita income level and the initial per capita income level” (Sachs and Warner, 1995a:40 as cited in Marnia, 2013).

However the construction of the finding is highly evasive linguistically in that finding no evidence that the closed economies had less improvement in the educational attainment relative to open economies does nothing in conveying the overall level of educational attainment for both groups therein contextualizing what an improvement or lack thereof actually means. The United Nations Human Indicator Indices show that wealthier countries are generally better educated relative to poorer countries, therefore the semiotic relevance of wealthy countries improving less, differs tangibly, in terms of social welfare, as opposed to the meaning of poorer countries improving less, since the floors, that is the initial conditions, between the two groups are asymmetric in the first place.

Recalling that “another point of relation between Baumol’s assertion of the *convergence club* hypothesis and Barro’s assertion of *conditional convergence* hypothesis is that both acknowledge limitations on growth given skill and capacity” (Marnia, 2013), one can observe that though Baumol’s assertion of the *convergence club* thesis suggests “...that only countries with an adequate initial level of human capital endowments can take advantage of modern technology to enjoy convergent growth” and *conditional convergence* thesis accepts convergence, or the aggregating behavior, as “...a fact of life” (SW, 1995a:41), Sachs and Warner nevertheless persist that in spite of convergence being a fact of life, that is inequality, “poor trade policies” (SW, 1995a:51) lead to slower accumulation of human and physical capital more so than do preferential trade relations based on ideological affinity and the behavioral symbiosis of the agents. In the authors’ *Natural Resource Abundance and Economic Growth* (1995b) the

variables DTT7189 (abbreviated from difference in terms of trade for the period 1971-1989) and TTSD (abbreviated from terms of trade secular decline) reflect these highly influential counter-market pressures.

Conclusively the authors make four major findings from their analysis to assess the impact of postwar global integration on economic performance for the period from 1970 to 1989; as taken directly from the text, page 52:

**I.** There is strong evidence of unconditional convergence for open countries, and no evidence of unconditional convergence for closed countries.

**II.** Closed countries systematically grow more slowly than do open countries, showing that “good” policies matter.

**III.** The role of trade policy continues after controlling for other growth factors, as in the standard Barro cross-country growth equation.

**IV.** Poor trade policies seem to affect growth directly, controlling for other factors, and to affect the rate of accumulation of physical capital.

Given the strength of the evidence for convergence, the authors note that among open economies, “convergence is conditional on policies, not on structural variables (for example, initial income, or level of education)” (SW, 1995a:52), in addition to the general notion of convergence, being that poorer countries should get richer over time and thus converge with the wealthy countries, Sachs and



Warner clearly assert that poor countries must be open to trade in order to be eligible for convergence. Their logic forwards that since inclusion confers some measure of increased prosperity relative to current levels, it is therefore imperative that the policy environment of poor countries support free-trade. Even though positive feedback loops have been associated with the overall economic growth process, it is hotly contested whether these development traps can or cannot be over come. Sachs and Warner “argue against the notion of a low-income “development trap”, since open trade policies (and correlated market policies) are available to even the poorest countries” (SW, 1995a:52) and convey that such policies need only be utilized as soon as possible and enforced thoroughly in order to re-set countries formerly closed on the path of prosperity. Later in the article the authors show that those ‘strong reformers’ who fully embraced Sachs and Warner’s growth medicine “...seem to outperform weak reformers both in terms of a smaller decline in GDP between 1990 and 1994, and in terms of earlier resumption of economic growth” (SW, 1995a:4). In strengthening their evidence the authors also show that, rather than per capita growth rates, per worker growth rates are a more precise term to measure convergence. In figure 6 the authors rescaled the figure 4 data for the initial income by growth for open economies (period 1970-89) to present the Log of 1970 GDP per worker against annual growth per worker on the y-axis to find that the “...negative relation between growth and initial income is more clearly evident in this figure than in figure 4” (SW, 1995a:43). Because per worker growth rates “often rely on less frequent census data” (SW, 1995a:44) the

abscissa only covers the period from 1970 to 1985. In response to potential criticism the authors elaborate that “if growth per worker were available for the full time period, we would expect it to strengthen our conclusions regarding convergence” (SW, 1995a:44). The authors acknowledge that given this partial data the minimum growth rate of the open group is Barbados at 1.2 percent (SW, 1995a:44), while with full information the minimum would decrease to “about 0 percent” (SW, 1995a:44). This is likely due to the fact that the “open economies also exhibit convergence in the sense of having a declining dispersion of GDP over time (sigma-convergence in Barro and Sala-i-Martin’s terminology)” (SW, 1995a:42). Being another form of convergence,  $\sigma$ -convergence “...speaks directly as to whether the distribution of income across economies is becoming more equitable” (Young, Higgins, and Levy, 2004:3). Since Sachs and Warner have already indicated that among open economies the distribution of income is becoming more inequitable, one could reasonably maintain inequality parallels openness, which is a principle complaint of the international anti-globalization movement.

This is very important since this article addresses three types of convergence: absolute,  $\beta$ , and  $\sigma$ , where absolute convergence is when all countries accrete to the same standard of living,  $\beta$ -convergence is when poor countries grow faster than rich countries, and,  $\sigma$ -convergence is when the distribution of wealth declines, conversely where the concentration of wealth is high. That  $\beta$ -convergence is followed by  $\sigma$ -convergence is indicated as absolute convergence is said not to exist due to due poor trade policies, yet  $\beta$ -convergence is exhibited among the

wealthy class, and  $\sigma$ -convergence is exhibited among the wealthiest of that class. Even if absolute convergence were to be achieved, there may never be absolute equality as wealth would transfer upward through the  $\beta$ - and  $\sigma$ -convergence levels, effectively exhibiting the divergence already apparent within the convergent club; essentially the pattern of convergence and divergence would be fractal. Such an outcome would reinforce the systemic nature of policy implications. The authors are clearly invested in maintenance of the current fractal pattern as is evidenced by their discussion of the growth effects of recent reforms.

### **Trade Policy and Changes in the Export Structure**

The premise of the short-twentieth century is a view postulating that globalization as, the sum of institutional harmonization and economic integration, was truncated by two World Wars and the Great Depression. In subscribing to this premise and basing their assertion that free trade is not only the basis of this union but that poverty will be eradicated in course, the authors are asserting that the marriage between democracy and capitalism is, and in modern times was always, the foundation of natural economic order. Sachs and Warner argue in *Economic Reform and the Process of Global Integration* that the interruption of this natural arrangement, perfectly foretold by economic forefathers such as Adam Smith, David Ricardo, Alexander Hamilton and even foreseen by contemporary theoretical opponents such as Marx and Engels, and even Keynes himself, resulted in a nearly world-wide socialist zeitgeist based in opposing the presumed

cause of so much destruction and inequity; capitalist-centered development. Import Substitution Industrialization (ISI) was an alternative development program posited in 1950 by Prebisch and Singer after, in addition to many other realizations, observing that over time producers of primary commodities, or extractive economies, experienced a decline in the terms of trade as increasing returns flowed up the supply chain toward finishing and away from primary production.

As Sachs and Warner explain, "...Prebisch and other economists worried that raw materials exporters that maintained free trade would be unable to industrialize, and would therefore be vulnerable to long-term adverse movements in the terms of trade between primary and manufactured goods" therefore it was argued that "import substitution [...] would give more time for domestic industry to develop and to improve productivity and, perhaps sufficient enough to generate manufactured exports in the distant future" (SW, 1995a:52).

A casual reading of the literature conveys that Prebisch in particular was highly influential in proliferating the radical development approach because of his position with the United Nations as director of the Economic Commission on Latin America and the Caribbean (UNECLAC). In his UN paper, *The Economic Development of Latin America and its Principal Problems (1950)*, Prebisch asserted that something needed to be done about Latin America's dependence on European and American trade as these economies suffered hugely as a result of war, depression, and the still immature status of the United States as the new and adjusting incumbent economic hegemon. Because Latin America's own

economic security was tied to the economic health of these nations, when they faltered so was to follow Latin America. While the United States was stock piling gold acquired in exchange for the convertibility of US dollars, necessary not only for domestic functions in Latin America but in international trade transactions with European agents, whose currency was essentially defunct for a time, the Latin American economies only became more troubled due to a lack of economic autonomy and a secular decline in the terms of trade. With regard to the former, Prebisch recognized Latin America needed to industrialize but he also recognized that its standing as a primary commodities producer economically dependent on external conditions that may only worsen over time, Latin America also needed protect its economies from international shocks felt by such political-economic interdependency, thus import substitution industrialization (import protection as export promotion) was suggested.

This decline in the terms of trade over time is the basis of the highly controversial, 60+ year old argument that rich countries were getting richer as producers of finished goods and poor countries were getting poor as being merely the provider of raw materials, relatively cheap in bulk and providing no external economies, unless state-owned, and thus no increasing returns to scale that would establish sectoral diversity and thus a resilient, growing economy.

Essentially without these long-run equilibria, free trade was little more than civilized captivity as the means of institutionalizing the natural capital i.e. industrializing, thus what would have been an opportunity to mobilize political and economic capital for the benefit of the nation's people was essentially cut off

at the foot. Purely from a physical capital perspective, the richest countries such as the United States with steel and oil, and the Great Britain with coal, had endogenous natural resources *and* the downstream production capacity for domestic refining allowing the internalization of returns to scale and an increased capital investment capacity, this being especially so with monopolies, monopsonies, and vertically integrated conglomerates<sup>82</sup>.

### **Sachs and Warner on Examining the Merit of Worry:**

#### **Is ISI justified?**

The authors convey that while it seemed reasonable enough to respond to concerning phenomena, any solution should be appropriately tested. Since, as Sachs and Warner follow, the theory of import protection as export promotion accords that "...a primary exporter that is evolving toward being a manufacturing exporter will experience a *faster* transition to manufacturing exports with a protective trade policy" (SW, 1995a:53-authors' italics), the authors used their own classification of trade policy in concert with UNCTAD's classification of trade structure in order to examine what would then be hybridized outcomes of the "...two related propositions that open trade condemns raw materials exporters to nonindustrialization, and that nonclosed trade promotes industrial exports in the long term" (SW, 1995a: 53). Here relying upon the UNCTAD classifications, the authors measure how the rate at which the share of total merchandise exports

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<sup>82</sup> It is well known that these countries also had their own periods of protectionism, which provided a safe haven for their infant industries-turned behemoths.

consisting only of primary products (agriculture, minerals, fuels, and metals) changed over the period 1971-1989 as a function of trade policy. The authors were able to interpret a relational dynamic between timing and trade policy with regard to whether a protected growth strategy would actually lead to growth in the long-run. Essentially the authors asked and examined two questions:

Does open trade prohibit extractive economies from industrializing?

Does closed trade promote trade-based growth in the long-run?

### **III.B. The Method and the Message II:**

#### **Attaining Long-run Potential through Timely Liberalization**

Sachs and Warner operationalize these questions by modeling an equation with the embedded assumption that the share of primary exports in GDP will gradually adjust to a long-term equilibrium level, that is, the long-term potential income level, where "...the degree of openness, in turn, may effect the speed of adjustment" (SW, 1995a:53), meaning, the rate of transition from an economy's current income state to its long-term potential income level, i.e. long-term equilibrium level. The equation is the basis of a regression varied four times to address specific concerns, which are described in turn below as taken directly from the text:

**Regression I.** Assumes that  $X$ , the long-term level of share of primary exports in GDP, is the same for all economies, and that the export structure gradually adjusts to that common long-run value (SW, 1995a:53).

**Regression II.** Investigates whether the land-to-labor ratio and the trade policy affect the long-term levels of  $X$ , the long-term level of share of primary exports in GDP (SW, 1995a:54).

**Regression III.** Assumes that  $X$ , the long-term level of share of primary exports in GDP, is a negative function of the endowment or population ( $POP$ ) relative to land area ( $L$ ) (SW, 1995a:54).

**Regression IV.** While regressions 1-3 were of the developing/transition economies, the fourth regression performs as a robustness check to “...show that these conclusions also hold when the regression is estimated with the developed countries added to the sample” (SW, 1995a:55). The authors do acknowledge that the long-term equilibrium level is subject to confounding factors in that it “...may itself be a function of the specific factor endowments of the country, for example the ratio of labor to land and other natural resources, as well as the *long-term* structure of trade policy itself” (SW, 1995a:53-authors’ italics).

## The Results

Earlier, the authors conveyed that according to their equation, for each country there is a projected limit of how much of its economy’s total GDP will be directly associated with its exportation of primary products, where this limit is termed the long-term equilibrium level and the share of primary products in GDP adjusts to this level over time. There are reasons why, potentially, not all countries would adjust to their limit, or would not do so in an acceptable time frame, as the authors point out that “this long-term level may itself be a function of specific factor



endowments of the country” such as “the ratio of labor-to-land and other natural resources, as well as the long term structure of the trade policy itself” (SW, 1995a:53). The first regression made two assumptions i.) that the long-term level of share of primary exports in GDP is the same for all economies, and ii.) that the export structure gradually adjusts to that common long-run value (SW, 1995a:53).

Regarding the first assumption, the authors found that the potential share of primary exports as component of GDP decreased over time to near zero, that is “not significantly different from zero” (SW, 1995a:53), such that in the long-run there would be “...no exports of primary goods” (SW, 1995a:53). So while in the long-term the level of share of primary exports in GDP *is* the same for all economies, it is so in as much as it means that no proportion of any economy’s GDP would be derived of primary product exportation at the point of convergence.

With regard to the second assumption, that the export structure gradually adjusts to that common long-run value, the authors found that while the closed economies “...have a partial adjustment coefficient of only 0.049” (SW, 1995a:53), where the partial adjustment coefficient is the conditional convergence coefficient, the open economies had a value of 0.366<sup>83</sup>. Sachs and Warner interpret this coefficient to evince that “...open economies tend to adjust more rapidly from being primary-intensive to manufactures-intensive exporters (SW, 1995a:53). With regard to the rate of adjustment the authors found that the

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<sup>83</sup> This value is equal to the conditional convergence (beta) coefficient for the closed economies (0.049) plus a positive gamma parameter of 0.317. See equation 4 on page 53 and Table 13 on page 54. Recall that a positive gamma parameter means that “...open economies adjust more rapidly to their long-term equilibrium” (SW, 1995a:53).

“difference in speed of adjustment is statistically significant” (SW, 1995a:53) to the extent that ...[w]hile many countries adopted the model of import protection as export promotion (of manufactures), it was the open economies that did best in promoting the export of manufactures” (SW, 1995a:53). This is very likely due to an established endogenous down-stream industrial capacity among open-economies, whereas the purpose of ISI was to *establish* an endogenous down-stream industrial capacity. Therefore the authors’ statement is much akin to saying, “open economies did better at doing what they could do compared to closed economies who simply did what they could”; not only is it splitting hairs, it just isn’t saying much. Given the historical initial conditions, not the experimental assumption of equality, the authors are effectively making a placebo comparison.

The second iteration was run to investigate “...whether *the land-to-labor ratio* [...] affect the long-term levels of X [the share of primary products in GDP]” (SW, 1995a:54-italics:MM), and held the assumption that the share of primary products in GDP “is a negative function of the endowment of population relative to land area” (SW, 1995a:54). Recall the assertion of Rogowski, tested as affirmative by Sachs and Warner, that a high population-to-land ratio is more likely to lead to faster liberalization, since “workers would tend to favor free trade” (SW, 1995a:20) and that Sachs and Warner expected that economies “with a high population-to-land area ratio [...] to have a low-value” (SW, 1995a:54) for the share of primary products in GDP. The third iteration was run to investigate “...whether *the trade policy* affect[s] the long-term levels of X [the share of primary products in GDP]” (SW, 1995a:54-italics:MM). Its operating assumption

was that, where the openness status is marked by either 1, open or 0, closed, the “measure of trade policy during 1970-90 [...] is also a measure of long-run trade policy (or the market’s expectation of a long-run policy), and is therefore a determinate of the long-run value of X [the share of primary products in GDP]” (SW, 1995a:54). Iterations two and three are connected in that the authors were evaluating whether “...the ratio of population to land area or openness is a statistically significant determinant of the long-run proportion of primary exports” (SW, 1995a:54).

Sachs and Warner found that neither variable was “...a statistically significant determinant” and that in fact, the estimated long-term share of primary products in GDP was “...virtually unaffected by the inclusion of the other variables” (SW, 1995a:54). So while Sachs and Warner found that neither trade policy (openness/self-sufficiency) nor the population-to-land ratio (a proxy for timing of liberalization) was determinative in relation to resource abundance-related growth (the potential proportion of primary products in GDP), they nevertheless assert that the “...important result is that the speed of adjustment is still different in closed and open economies” where “[o]pen economies continue to display much greater dynamism in changing their export structure from primary commodities to manufactures” (SW, 1995a:54). To this end the authors emphasize the fact that “closed economies display almost no change at all in export structure during the nearly-twenty-year interval examined since the estimate of  $\beta$  is always insignificant” (SW, 1995a:55). Here it should be said that, the period 1970-1990 is the range of time that the nations pursuing self-sufficiency policies were under

attack in a shock-doctrine based siege of economic and ideological warfare, militarily supported. The authors themselves refer to this when they note that "...it was the Pinochet dictatorship in Chile after 1973 which ended decades of protectionism" (SW, 1995a:21).

Since "one of the original arguments for SLI was the promotion of manufacturing exports" (SW, 1995a:52), and while the purpose of this analytical exercise was to "show that the "importance of trade policy is demonstrated in several cross country growth equations in which we hold constant other determinants of growth" (SW, 1995a:4), the authors tested the premises of import substitution industrialization by quantifying the questions: Does open trade prohibit extractive economies from industrializing? and Does closed trade promote trade-based growth in the long-run? Conclusively Sachs and Warner found that no proportion of any economy's GDP would be derived of primary product exportation at the point of convergence, the potential proportion of primary products in GDP is not determined by either trade policy (openness/self-sufficiency) or the population-to-land ratio, and open economies became manufactures-intensive exporters more quickly than closed economies with a statistically significant result indicating that the difference in speed of adjustment matters. When the authors introduce the data of the developed countries in the fourth iteration they found that these conclusions held and ultimately support their assertions that the "open economies that did best in promoting the export of manufactures" (SW, 1995a:53) and that "open economies continue to display

much greater dynamism in changing their export structure from primary commodities to manufactures” (SW, 1995a:54).

### **Trade Policy and Macroeconomic Crises**

According to Sachs and Warner, beyond quickly accumulating wealth via a comparatively more rapid transition to competitive, industrial capacity for manufactures, another one of the many benefits to trade openness is an ability to remain current on accounts owing. Often times in the process of becoming self-sufficient, closed economies require international loans to cover cash flow gaps leading to so-called balance-of-payments crises when the economies are unable to pay on the balance according to schedule. In 1985 Jeffrey Sachs argued that “...the outward orientation of the East Asian economies had saved them from the developing country debt crises that ravaged Latin America” (SW, 1995a:55). The composition of this article provided an opportunity to take advantage of the ten-year difference and ask in 1995, “...[i]s there evidence that openness to trade helped to avoid macroeconomic crises in the 1980s?” (SW, 1995a:55).

### **III. C. The Method and the Message III:**

#### **Superior Policies Avert Macroeconomic Crises, Inferior Policies Court Them**

Thusly posed (connect to ISI questions), the research question anticipates the authors' expectations that "closed economies will be more likely than open economies, to fall in to one or more of these crises" (SW, 1995a:55). The authors give three main reasons why this expectation is well-founded, beginning primarily with the fact that "...closed economies often borrowed heavily from foreign sources in order to overcome economic stagnation caused by the deeper problem of poor economic policies" (SW, 1995a:55), further explaining that when creditors withdrew support for further lending a debt crisis ensued. In the second place Sachs and Warner assert that closed economies were unable to service their debts because they lacked the "...foreign exchange earnings" (SW, 1995a:55) that would have come from manufactures-related investment activity. Since "...closed economies oriented investment toward non-traded goods" (SW, 1995a:55) their down fall was a lack of recurring income that would have been afforded by servicing the markets. Yet even more importantly than heavy borrowing and low investment is the authors assertion that the third major reason for macroeconomic crises in closed economies was that "they tended to have a higher level of state involvement in the economy, including the ownership of state enterprises" (SW, 1995a:55). The authors' highlight the ownership of state enterprises particularly as "loss-making state enterprises added significantly to the overall fiscal burden of many governments in the 1980s" (SW, 1995a:55) such

that these enterprises contributed to “the onset of high inflation and foreign debt crises” (SW, 1995a:55). In tracking the rationale of these three points Sachs and Warner define a severe macroeconomic crises as any one of the following three occurrences:

**I.** A rescheduling of foreign debt in the Paris Club (official creditors) or the London Club

(commercial bank creditors).

**II.** Arrears on external payments (including debt servicing), as reported by the IMF.

**III.** An inflation rate in excess of 100 percent per year.

With these definitions in the service of answering whether there is indeed evidence that openness to trade is an important factor in avoiding macroeconomic crises particularly in the 1980s, The authors first classified “countries according to their trade orientation in the 1970s and then examine whether the countries that were open in the 1970s were less likely to experience a severe macroeconomic crisis in the 1980s and 1990s” (SW, 1995a:55), then ran a chi-square test of independence where the null hypothesis, “of independence between trade policy in the 1970s and macroeconomic crises in the 1980s” (SW, 1995a:55). They found independence was “rejected at the 0.000 level” (SW, 1995a:55).

## The Results

From a total of 90 developing countries assessed, 17 had an open trade policy in the 1970s and 73 held a closed trade policy. Of the 17 open countries, one, namely Jordan, “succumbed to a macroeconomic crisis after opening” (SW, 1995a:56) associated with a “sharp cutback in foreign aid from the oil-rich states of the region as a result of the collapse in world oil prices in 1986” (SW, 1995a:56). Since there were so many more closed countries that suffered macroeconomic shocks as expected from the authors’ rationale, Sachs and Warner expressed that it was “easier to assess the 14 [countries] that did not” (SW, 1995a:55) fall within the rationale, namely, “Bangladesh, Botswana, Burundi, China, Columbia, Hungary, India, Iran, Nepal, Papua New Guinea, Rwanda, Sri Lanka, Tunisia, and Zimbabwe” (SW, 1995a:56). Nine of these exceptions are explained in turn below, as taken directly from the text:

**Botswana:** experienced no shocks in the 1980s because it had “...opened its economy by

1979”.

**Columbia:** “...maintained very cautious policies both in trade and in finance”.

**China:** “Began the 1980s with very little debt because it had borrowed little during the

Cultural Revolution of 1966-76”.

**Hungary and India:** “...in fact, flirted with a debt crisis which was narrowly averted”.



**Bangladesh, Burundi, Nepal, and Rwanda:** “Are among the world’s poorest countries and have little, if any, access to loans on commercial terms, which has probably saved them from generating a debt crises”.

In further qualifying the latter exceptions, the authors remind their readers that “moreover, Rwanda and Burundi have been subject to extreme internal unrest” (SW, 1995a:56). This relates to the results Sachs and Warner found earlier in their paper on the role of extreme political conditions and growth, where the statistical significance of the *POL* variable suggests that “property rights, freedom, and safety from violence are additional determinants of growth” (SW, 1995a:50).

The authors convey two important pieces of information, one being that commercial banks, or the London Club, played a role in the debt crises of the 1980s and 1990s as is asserted by Klein (2007), and secondly, that although Rwanda and Burundi were among the countries that did not suffer macroeconomic shocks, they had nothing of value that a.) would have attracted commercial lenders and b.) if these countries did have something of value to the international community the level of “extreme internal unrest” (SW, 1995a:55) would have supported the kind of graft and mismanagement characteristic of sub-Saharan African nations even at that time, and much more so today.

## The Hard Hand of Reforms: Recent Reforms and Economic Performance

### III. D. The Method and the Message IV:

#### The New Ceteris Paribus: Not All Growth is Created Equal

By crafting a regression equation sensitive to "...a separate fixed effect on growth" and "...a timing effect for intervals" (SW, 1995a:58) the authors were able to formulate a model that would yield multiple equilibria in which each is related to when the decision to adopt an open trade policy was made<sup>84</sup>. The authors' highly stylized model established four intervals among which the 37 countries could fall, self-correlating with "...higher or lower growth on average after the onset of open trade" (SW, 1995a:58). The intervals, where T is the year of trade liberalization, were I<sub>1</sub>: between T-10 and T-4, I<sub>2</sub>: T-3 and T-1, I<sub>3</sub>: T and T+2, and I<sub>4</sub>: between T+3 and N, which is either the earliest of the available data, T+10, or "...the latest year for which data are available (usually 1993)" (SW, 1995a:58). The recent past is formulaically defined as 1-3 years before the time of liberalization, while the distant past is so defined as 4-10 years prior to liberalization. It is inherently understood that that multiple outcomes would ensue with a sensitive enough equation, the inclusion of an error term for randomness, and careful selection of the data it is certainly reasonable that if for a subset of countries, the authors take a ten-year period prior to reform, break it down into

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<sup>84</sup> Therefore one can safely presume that the inclusion of a timing effect allows the authors to infer statements regarding post-installation growth trends since it is a matter of course that "...economic reforms take time to work" (SW, 1995a:44).

two sub-periods labeled the distant and recent past, lay out a four-interval interaction of growth trends with a time effect variable associated with each interval to give a highly specified time relevance to a comparison of growth trends *between* the distant and recent past as well as *among* the recent past sub-period relative to the sub-periods 1-3 years after liberalization, and 4 up to 10 years after liberalization. Ultimately, since the regression models three propositions there are three expected equilibria.

The first is such that if “...trade liberalization raises growth relative to the “distant past” (years [T-10] through [T-4])” (SW, 1995a:58), then the timing effects, represented in a timing coefficient, for the post-reformation intervals,  $I_3$  and  $I_4$ , “...should be positive” (SW, 1995a:58). That is, if the authors can show increased growth, due to trade liberalization, between the distant past ( $I_1$ ), the period 4-10 years prior to liberalization, and both the recent and distant future, the periods from 1-3 years after liberalization ( $I_3$ ) and 4 up to 10 years after liberalization ( $I_4$ ), then the timing coefficient should be positive.

Such a circumstance would allow the authors to compellingly argue a case in which they convey that the difference in growth between the distant past (the time of state-led industrialization efforts) and the recent future (relatively immediate post-liberalization) is related specifically to trade reform even while stressing that because “trade reform is almost always accompanied by a much broader range of reforms [...] our results cannot, therefore, distinguish between the effects of trade policy per se, and the effects of other parts of the policy package that accompany the trade measures” (SW, 1995a:57). Taking the content

of the authors' paper as a whole, one can observe that Sachs and Warner undermine this statement in that they disparage those other parts of the policy package in a redirect that economic crises ensuing "after the start of full fledged reforms [...] seem to be related to financial market liberalization and exchange rate mismanagement" (SW, 1995a:4), that is, not so much because of trade reforms specifically. This is done in support of positing trade liberalization as the key determinant of growth more so than other parts of a structural adjustment package even so far as to leverage trade liberalization as "the sine qua non of the overall reform process" (SW, 1995a:2) from a short-twentieth century perspective.

The second of the equilibria is formulated such that if "...trade liberalization raises growth relative to the "recent past" (years [T-3] through [T-1])... [then the differential balances of the timing coefficients for the recent future and the recent past and the distant future and the recent past] ...will be positive" (SW, 1995a:58). That is, the relationship between growth beginning with the period 1-3 years after liberalization less the period 1-3 years prior (equal to zero), and the period from 4 up to 10 years after liberalization less the period less 1-3 years prior to liberty will yield an affirming timing coefficient; allowing the authors to again argue compellingly for trade related growth but also to account for differences in growth based on proximity to the time of liberalization thereby associating relatively poor growth in the earlier periods with poor policy choices and increased growth with the later periods characterized by the onset of good economic policies via economic reform overall.

The relationship between the first equilibria and the second is that the authors would be mathematically enabled in asserting that the sooner reforms are undertaken the better; if, at minimum, growth relative to the recent past outstrips growth relative to the distant past, and especially if the relation between growth relative to the recent past and the distant future, the period from 4 up to 10 years into post-installation, outstrips, even on average, the relation between growth relative to the recent past (1-3 years prior to liberalization) and the recent future,  $I_3$  (1-3 years after liberalization). Note, especially so because this would indicate that the patient-economy is stable and that the growth effects of reform have been sustained for at least seven years.

Finally, upon the foundation of the first and second equilibria, the third expression is the result of piece-wise formulation that yields two external equilibria of its own specific to 36 countries that "...did not even achieve a temporary liberalization during 1980-93" (SW, 1995a:57), since it is "...far more common [the] case that developing countries started closed, performed poorly, and then opened" (SW, 1995a:44). Here, if "...trade reform is initially contractionary, and subsequently expansionary, we would find [the timing coefficient for the recent future] is less than zero and [the timing coefficient for the distant future] is greater than zero" (SW, 1995a:58); thereby the authors could make an argument that trade reform both catalyzed, and is therefore related to, sustained growth effects over a longer run.

Cumulatively, the reinforcing structure of the two main equilibria, and the third expression having two external equilibria, conveys that for developing

countries which started out closed but then opened, which according to Sachs and Warner's classification is "...most developing countries" (SW, 1995a:45) and in fact such countries are typified this way given Sachs and Warner's assertion that "...the typical country started out as a closed economy and liberalized later" (SW, 1995a:33), the function would indicate increased growth the longer reforms were in place. This aligns with the observation in the greater literature on reform effects which indicate that the first few years of reforms are generally marked by revolutionary strife consistent with apoptotic behaviors such as the eradication of social services and mass employment dissolutions having such devastatingly systemic consequences of which Naomi Klein remarks, "...as is always the case women and children suffered the worst of the crises" (Klein, 2007:344). For example, in the case of the Asian crisis, she explains that many "...rural families in the Philippines and South Korea sold their daughters to human traffickers who took them to work in the sex trade in Australia, Europe, and North America" (Klein, 2007:344). Indeed, Sachs and Warner did allude to the adjustment difficulties in the early stage of reform implementation when they noted that "...economic reform paid off after a few years in terms of accelerated growth in GDP" (SW, 1995a:4). Such strife is inherent even in the function itself, which formally presents that there is no change in growth between the recent past and the recent present, and in fact indicates an expectation for negative growth, characterized as a condition of extreme contraction i.e. negative expansion. Additionally, the significance of the equilibria cumulatively is that, in combination with a thick description analysis based on Klein's extensive work<sup>85</sup>,

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<sup>85</sup> Which Joseph Stiglitz advocates as "...a rich description of the political machinations required to force

the self-reinforcing formulation evinces that the patient-constituents are prescribed a placebo<sup>86</sup> and are effectively forced to take it at gunpoint. The mathematically expected outcomes are the social analogs of the reform- and resistance-related states, of the 38 non-communist reformers, the 25 post-communist transition economies of Eastern Europe and the former Soviet Union, and those 36 liberalization failures that "...did not even achieve a temporary liberalization during 1980-93" (SW, 1995a:57). It also appears that the outcomes are development trajectories that, while sensitive to political economic initial conditions<sup>87</sup>, are initiated by mono-cultural economic reforms and of those, as Sachs and Warner argue, more strongly so by the trade liberalization element.

## The Results

As stated above the authors tested three propositions:

**I.** If, due to trade liberalization, growth is greater in the recent *and* distant future relative to the distant past then the timing coefficient for intervals 3 and 4 should be positive.

**II.** If, due to trade liberalization, growth is greater in the distant future relative to the recent past then there will be no change in growth in the recent future and the distant future will be positive.

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unsavory economic policies on resisting countries and of the human toll. She paints a disturbing portrait of hubris, not only on the part of Friedman but also of those who adopted his doctrines, sometimes to pursue more corporatist objectives". From the back cover of *Shock Doctrine: The Rise of Disaster Capitalism*.

<sup>86</sup> I am using the placebo trope somewhat loosely seeing as negative expansion is not equal to zero, which would be the ceiling prior to growth. And still, resistance by the constituent-patient indicates that liberty under any condition is not desired.

<sup>87</sup> That is, the political and cultural differences between non-communist but closed nations, socialist post- and quasi-post-independent nations, and post-communist nations.

**III.** If trade reform effectuates conditions that are initially contractionary, and subsequently expansionary, a finding that the recent future is less than zero [negative growth] and the distant future is greater than zero will be supported.

Sachs and Warner, relying upon the estimated values for the timing coefficients as well as the t-statistics to which their results are accorded, find that "...economic growth is indeed higher after trade liberalization than in the distant past, both in the near term [T,T+2], by an average of 1.09 percentage points per year, and in the more distant future [T+3, N], by an average of 1.33 percentage points per year" (SW, 1995a:60). In explaining the significance of the results the authors inform their readers that the "...near term gain is significant at ( $p = 0.10$ ), while the long-term gain is statistically significant at ( $p = 0.05$ )" (SW, 1995a:60) suggesting, among other things, that over the long-run openness is significantly related to growth. Further, the "...increase in average growth [between the near-term and the distant future-MM] is larger when compared with the years immediately preceding the trade liberalization since average growth rates are lower in those years than in the years [T-10] through [T-3]", that is, 3-10 years prior to liberalization. As a matter of course, the authors add parenthetically, "...by 0.88 percent per year on average" (SW, 1995a:60).

Essentially, Sachs and Warner report that the economic growth of their sample of 36 developing nations was higher in the distant past during a period of poor economic policies than in the 1-3 year period after the reformation and establishment of good economic policies which led to, on average, an 88%



decrease in growth, comparatively, during that period. In other words the authors make the statement that if one compared growth in the recent future with growth in the distant past, less an additional year, then compared growth in the distant future with growth in the distant past, the increase is even larger since growth is lower in the recent future by 88%<sup>88</sup>. In this estimation, the destruction of another country's economy is strikingly similar in effect to the Hiroshima incident, though the authors explain that, "...the very-short-term growth consequences of a trade reform will depend importantly on the inherited structure of the economy" (SW, 1995a:57), but perhaps of greater consequence is that if effects characterize their cause then "...trade reform has been part of the overall *institutional harmonization* with advanced market economies" (SW, 1995a:57, authors' italics) and such devastation is in fact systemic as an inherent part of globalization.

An obvious question then is under such a condition, would not growth attained in the distant future, that is, immediately after the three-year threshold for the recent future, be artificial? Certainly the effects of growth would be tangible, but is growth gained by nearly obliterating that which was slowly accumulated in order to then reset the scale and draw attention to the growth acquired from ground zero, truly growth? Why not build on the growth that was already established? Creative destruction? While these questions are often held to be outside the scope of work such as Sachs and Warner's as myopic technocrats

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<sup>88</sup> The destruction of another country's economy is strikingly similar in effect to the Hiroshima incident, though the authors explain that, "...the very-short-term growth consequences of a trade reform will depend importantly on the inherited structure of the economy" (SW, 1995a:57), but perhaps of greater consequence is that if effects characterize their cause then "...trade reform has been part of the overall *institutional harmonization* with advanced market economies" (SW, 1995a:57, authors' italics) and such devastation is in fact systemic as an inherent part of globalization.

would assert, their answers, nevertheless, are without a doubt antithetical to their espoused philosophy, which is that among "...features of a healthy economy [...]" a reliance on the private sector as the main engine of growth" (SW, 1995a:63) is paramount. Still it is expected that SW's line of inquiry would require a response and as such the authors do anticipate one. But first, in regards to the additional year, the period [T-10] through [T-3] was not one of the four established thresholds and would appear to evince an a posteriori composite interval, of the first element of  $I_1$  and in the terminal position, the first element of  $I_2$ . Clearly anticipating potential criticism, saying as much, the authors footnote a rebuttal. While Sachs and Warner claim that they find "...little support for the idea that our results might come from reverse causality or from sample selection bias" (SW, 1995a:44), James Duesenberry, one of the general discussants, noted that, "...two kinds of bias might be affecting the paper's results. First, since most countries turned to openness following periods of severe crisis, the new policy was bound to look good. Second, ignoring reforms that are not maintained until the end of the sample period [the temporary liberalizers] means that trade reforms that that are not working are omitted from the sample" (SW, 1995a:107). To which Andrew Warner replied that "...to lessen the effect of the first bias they compared growth after reform with growth in the distant past, rather than in the immediate past. And as to the second, they failed to find hard evidence of a country that really had liberalized (by their standards), and then did an about-face because of slow growth" (SW, 1995a:107). Rather, Sachs and Warner assert "...political and ideological shifts in each country" (SW, 1995a:35)

Given the gravity of the findings, in addition to the structural insights of the formula, it is appropriate to reprint the full rebuttal here:

“It is worthwhile responding to two possible criticisms of these results. First, it could be objected that if growth outcomes were purely random, and countries reformed only when growth fell below a critical threshold, then although we would tend to observe higher growth after reform, it would be incorrect to attribute the higher growth to the reform. However, we stress that we are comparing growth after the reforms with growth in the distant rather than the immediate past, and further, that our period for the distant past spans seven years.

Second, it is possible that countries may have sorted themselves randomly as reformers and nonreformers. If some grew and others did not, and those that did not closed up again and thus were eliminated from our group of reformers, we would be left with a biased sample of reformers with high growth. But we have found few examples of countries that experienced slow growth after true reform. For example, economies that were temporarily open in the 1950s and 1960s and subsequently closed again, tended to have *high* growth rates during the liberal episode. We have also found that certain countries that are sometimes cited as recent reformers, such as the Dominican Republic in the early 1980s and Nigeria between 1986 and 1992,

actually did not reform sufficiently (by our criteria), while others that did reform temporarily, such as Venezuela, experienced rapid growth during the episode of liberalization. Hence we find few examples to suggest that sample selection bias is an important issue when examining the growth performance of recent reformers”.

(Sachs and Warner, 1995a:60).

In evaluating whether or not those countries more committed to reform, that is, began earlier and fully engaged all recommendations performed better than the later and less stringent reformers, and to provide evidence that the extreme costs in the short run are worth the long-run benefits, the authors took advantage of “...a recent review of the reform experience conducted by the European Bank for Reconstruction and Development (EBRD)” (SW, 1995a:61) of the countries of Central and Eastern Europe and the former Soviet Union. While Sachs and Warner realized that in 1995 it “...is obviously extremely premature to draw strong conclusions regarding the effects of these reforms on the restoration of growth” (SW, 1995a:60) they maintain that “...nonetheless, at least some evidence can be adduced from the five or more years of reform experienced by some parts of the region” (SW, 1995a:60).

In model structure similar to the one elaborated upon earlier which took a more in depth look at the possibilities of timing, the authors ask two questions, taken directly from the text (SW, 1995a:61):

**I.** Whether intensive reformers exhibit more or less decline in cumulative GDP between 1989 and 1994; and

**II.** Whether intensive or early reformers enjoy a faster turnaround in economic growth, and thereby achieve positive GDP growth by 1994.

SW categorized the countries firstly, by intensity of reform, and secondly, by timing of onset, then tabulated the data to find "...all of the strong trade reformers had achieved positive economic growth by 1994, while none of the other countries had done so" (SW, 1995a:61). The authors add that even though "...there is considerable variance in the data, on average, strong reformers also experienced a smaller cumulative loss of GDP between 1989 and 1994" (SW, 1995a:61). Sachs and Warner note that, "...at the least we can highlight that the data are *consistent* with the notion that strong trade reforms have produced a faster turnaround in growth and a smaller cumulative decline" (SW, 1995a:61).

Even though Sachs and Warner maintain that, in this case, they cannot "...distinguish adequately between the specific role of trade policy and the many other differences (geography, politics, resource endowments) between the two regions that might help to explain the differences in growth performance" (SW, 1995a:61) or that in the case of the earlier time series analysis of developing nations, their results cannot "...distinguish between the effects of trade effects per se, and the effects of other parts of the policy package that accompany the trade measures" (SW, 1995a:57) and that in the grand scheme they are "...strongly aware that trade policy represents just one element [...] of an overall economic

policy” (SW, 1995a:63); the persuasive nature of the paper is neither missed nor the implications changed as none of these disclaimers are consistent with the full measure of the authors’ messaging. Though Sachs and Warner separate their treatment of the transition economies Central and Eastern Europe and the former Soviet Union from that of the developing economies of the Latin American, African, Middle Eastern and Caribbean countries, it appears that with respect to trade liberalization and growth in transition economies, the authors reiterated the same rationale elaborated in the models describing the developing conditions.

### **Interpreting Prebisch**

“In economics, ideologies tend either to lag behind events or to outlive them”.

Raúl Prebisch

*The Economic Development of Latin America and its Principal Problems (1950:1)*

A key intellectual obstacle to Sachs and Warner’s vision of the world is Prebisch-Singer’s finding of a secular decline in the terms of trade which, while taken to justify a move toward disregarding natural resource production as a viable development pathway, in reality, it meant only that there would be less natural resources available to the global market place. And this circumstance was itself forced upon the global south by the industrial powers. Prebisch explains the changing tide and adaption of Latin America,

“The purpose of industrialization must be clearly defined. If industrialization is considered to the purpose of industrialization to be the means of attaining an autarchic ideal in which economic considerations are of secondary importance, any industry that can produce substitutes for imports is justifiable. If, however, the aim is to increase the measureable well-being of the masses, the limits beyond which a more intensive industrialization might mean a decrease in productivity must be borne in mind.

Formerly, before the great depression, development in the Latin American countries was stimulated from abroad by the constant increase of exports. There is no reason to suppose, at least at present, that this will again occur to the same extent, except under very exceptional circumstances. These countries not longer have an alternative between vigorous growth along those lines and internal expansion through industrialization. Industrialization has become the most important means of expansion.

*This does not mean, however, that primary exports must be sacrificed to further industrial development. Exports not only provide the foreign exchange with which to buy the imports necessary for economic development [...] If productivity in agriculture can be increased by technical progress and if, at the same time, real wages can be raised by industrialization and adequate social legislation, the disequilibrium between income at the centres and the periphery can gradually be corrected with out detriment to that essential economic activity”.*

*The Economic Development of Latin America and its Principal Problems* (Prebisch, 1950:6-italics added)

The rhetorical disjuncture of the implication of PST from its very clearly intended meaning indicates, as will be shown in the rhetorical and critical analysis of *Big Push* (SW, 1999), that the global industrial centers were concerned about the potential of being crowded-out by a rise of comparatively advantaged manufactures, if every southern country decided to use their resource stock to develop to their comparative advantage.

These were very serious times, from the 1960s through the 1980s and 90s, such that if the global north had not retained the technological advantage, the consequence of which is also held in *Big Push* (SW, 1999), then it would have been a very possible reality that the industrial centers would have shifted south, so that the northern order would have been significantly under-minded. A number of ideological and political-economic interventions were waged in the north-south direction, particularly in the 1980s. It is from this revolutionary environment that the ‘resource curse’ extends, therefore in representing the interests of the global north, Sachs and Warner debunk the merits of what was not an uninterrupted exploration into import substitution industrialization.

### **Setting an Agenda for 2020:**

#### **Sachs and Warner on The Global Spread of Capitalism**

“The world economy at the end of the twentieth century looks much like the world economy at the end of the nineteenth century” (SW, 1995a:61), where



returning to the short-twentieth century premise, it is tempting, “at the end of the twentieth century, to believe that the birth of a global capitalist economy is inevitable” (SW, 1995a:63). After all, the authors have amassed evidence for conditional convergence for those “countries that join the system”, in addition to “evidence of accelerated growth in the countries that have recently undertaken market reforms” (SW, 1995a:63). Sachs and Warner ascribe the health of an economy to “a reliance on the private sector as the main engine of growth” and from this ideological standpoint assert that since they have “used trade policy as our measure of economic management” they are able to show that “to some extent opening the economy has helped to promote governmental responsibility in other areas” (SW, 1995a:63), such as “reduced rent-seeking” (SW, 1995a:57), and therefore argue that “...trade policy should be viewed as the primary instrument of reform” (SW, 1995a:63); even though to “...some degree, our measure of trade policy serves as a proxy for an entire array of policy actions” (SW, 1995a:63). Possibly in anticipating their paper on natural resource abundance and economic growth the authors state “...[o]nly further cross-country analysis, with a more detailed characterization of the entire policy regime, would allow us to distinguish the growth effects of the various components of economic policy” (SW, 1995a:63), that is free-market economic policy.

Believing their analysis to be “...necessarily impressionistic and imprecise at several crucial points” (SW, 1995a:63), one gets the sense of Sachs and Warner’s urgency that economic reform cannot be understated, much less trade reform more specifically, considering that “ [a] global capitalist system is taking

shape, drawing almost all regions of the world into arrangements of open trade and harmonized economic institutions” (SW, 1995a:61). It is no stretch then to assert that the doctors’ order is to augment the “...wisdom and leadership of the leading democracies” with a forward-thinking plan. After all, “[t]he spread of capitalism in the twenty-five years since the start of the Brookings Panel is an [sic.] historic event of great promise and significance, but whether we will be celebrating the consolidation of a democratic and market-based world system at its fiftieth anniversary will depend on our own foresight and good judgments in the coming years” (SW, 1995a:63).

While it is clear from this summary, and thick analysis that *Economic Reform and the Process of Globalization* is a superb example of the free-market guild mentality and stands remarkably pregnant with bias, such is not necessarily so unexpected from the equivalent of a keynote speech for the Brookings Panel on Economic Activity, a community where researchers discuss and present analysis relevant to economic policy. The Panel is part of the larger, highly influential Brookings Institution, which aims to “...strengthen American democracy” and “...secure a more open, safe, prosperous, and cooperative international system”<sup>89</sup>. Appropriately, an issue of key focus in the Sachs-Warner address is that of convergence. By showing that openness to trade is a prerequisite to entry in the wealthy convergence club, and that those countries, which then join the system, are more likely to be less impoverished than those who resist, Sachs and Warner not only make the statement that convergence is the key to eradicating poverty, but that there is no inevitable poverty trap. Point of fact, Anders Åslund

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<sup>89</sup> <http://www.brookings.edu/about#research-programs/>

provisionally concurred such that "...[i]f we ignore racism and look upon all factors of production as transferable, it is indeed difficult to accept that a poverty trap is a given once and for all" (SW, 1995a:96)<sup>90</sup> and thus trade reform is an international imperative for the "...spread of international rule of law, largely through institutions such as the World Trade Organization and the International Monetary Fund" (SW, 1995a:63). Sachs and Warner thoroughly lay out a free-enterprise advocating agenda as the basis of an economic management plan structured on command-control execution from the direction of international regents to the global class of client states. As shown throughout, central to their management plan is a policy of trade openness which they believe helps to promote governmental responsibility and upon which point they argue for the old stick of commercial interests as governing interests, that is, "...trade policy should be viewed as the primary instrument of reform" (SW, 1995a:63).

A point that is very clear from SW's ambiguity disclaimers is that trade reform is only one part of a complete reform package but that it is intended to be a proxy for the full range of such a package, i.e. "...an entire array of policy actions" (SW, 1995a:63). If trade liberalization is to be a proxy for the full reform

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<sup>90</sup> Åslund also importantly pointed out "...migration and various forms of intervention" (SW, 1995a:96) as other factors pressing on the consideration of an invincible poverty trap. An excellent mechanistic illustration of the ravages of migration was provided by Beaulier in his discussion of Botswana's Success where he explains that Britain's, relatively, "most severe policy was the hut tax" and elaborates on its profound impact on Botswanan cultural and economic society during the country's time as a protectorate. Beaulier writes, "...[t]he effect of the tax was severe [...] others responded by entering the formal labor market [...] there was a massive increase in male job-search activity [...] resulting in] massive emigration into South Africa where Botswanans were guaranteed employment in Britain's colonial mining operations [...] [w]ith up to one-half of Botswana's male population gone, the physical, social, and economic infrastructure was dealt a serious blow" in that beyond the strain on the "...fabric of civil society [...] Botswana's political institutions were crippled, with up to half of the adult male population spending up to 11 months of each year in South Africa. Beaulier notes that "...entrepreneurs were probably a significant fraction of the emigrating population" (Beaulier, 2003:233). ". Considering what is known today as 'Brain Drain', this was very likely a serious problem, even at this time, as the skilled artisans and entrepreneurs, hindered by a lessened consumer demand, emigrated to the mines of South Africa.

package then it would follow that the entirety of economic reform is a control measure. While this is certainly no surprise it does more fully support the understanding of trade reform in its defense applications such that a criticism of the role of trade liberalization as a key driver of growth is a criticism of economic reform in its larger ability to maintain control. Conversely a defense of trade liberalization is a defense of its prescribed control methods and a defense of the agenda of economic reform. To better contextualize this assertion the following is a close reading of the comments and discussion led by Anders Åslund and Stanley Fischer on Sachs and Warner's *Economic Reform*, which adds richly to both the professional and policy contexts of the authors' contribution to the conference.

Both of the primary commentators exalted the work as a "...splendidly written tripartite paper" that is "broad and most stimulating", in providing readers with "...their Olympian view of world economic history over the last century", such that it runs "...the gamut from Marx and Engels to Pollyanna", while appropriately ending with a degree of caution, though such is "not consistent with the rest of the paper" (SW, 1995a:96). Overall the reviewers found the paper ambitious in its review and consistent with the ideological subscriptions of most mainstream economists, though both men inquired as to the methodology since the SW's "...strict categorization" (SW, 1995a:96), which is the basis of their claim to have demonstrated the "...basic proposition that open trade leads to convergent rates of growth" (SW, 1995a:4), was the source of significant scrutiny.

Naturally one of the main sources of expressed discomfort was Sachs and Warner's semiotic handling of convergence. Anders Åslund claimed he "...felt

uneasy with the word *convergence*, because it suggests that there is one ideal that everyone can learn; that the leaders can do no wrong or unlearn this ideal, and that their challengers can do no better” (SW, 1995a:96, italics-AA)<sup>91</sup>. In a measure evoking Prebisch, Åslund pressed that he is “...firmly convinced that good economic policies and institutions can be unlearned and abolished [considering] Argentina is a country with a longer record of economic unlearning” (SW, 1995a:96). Still Åslund appears to agree with the notion of conditional convergence when he adds that, “...We are considering very long periods and this convergence maybe temporary, lasting only a few decades” (SW, 1995a:96).

Stanley Fischer expressed that he could not see any basis for the conclusion that “...openness will lead to *absolute* rather than *conditional* convergence” (SW, 1995a:104, italics-SF). Unlike Sachs and Warner, who argue that “...convergence is a fact of life” (SW, 1995a:41), Fischer expounded that, in actuality, the conditions of divergence are a fact of life, qualifying his point in saying,

“There are reasons to think that steady-state per capita income levels in different countries are bound to differ, as a result of differences in saving rates, different rates of investment in human capital, and so forth. After all, income levels differ among states in the United States, they will always differ among individuals, and they will likely always differ among countries. Perhaps we can define convergence differently,

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<sup>91</sup> On the idea that certain countries are seemingly incapable of learning (the right way to do things) as cited in Auty (1993), see: Lago (1990): *The Illusion of Pursuing Redistribution through Macropolicy: Peru's Heterodox Experience (1985-90)*. Mimeo. World Bank. Washington, D.C.; and Paus (1991): “Adjustment and Development in Latin America: A Failure of Peruvian Heterodoxy 1985-90”. *World Development* 19. (411-34).

to say that countries have converged if all individuals with the same amount of human potential have the same earnings (or utility) in whatever country they live—and perhaps by the time such convergence becomes relevant we will be able to measure human potential. In the meantime, the claim of absolute convergence is hard to accept”.

*Stanley Fischer in Sachs and Warner, 1995a (104).*

While the concluding evidence in favor of convergence is largely attributed to Sachs and Warner’s classification scheme, Åslund appears to appreciate the straight-forward nature of the researchers experimental execution citing that, “Sachs and Warner have simply defined their criteria for an open economy, found the statistics for their categorization, and tested their hypotheses”, but also the analytical construction as well as, citing “...[t]hey have included a large number of countries and formulated a clear hypothesis which can be statistically tested, thanks to a strict categorization” (SW, 1995a:96).

As exhibited by the excerpt above, Fischer clearly took issue with a substrata of SW’s finding of convergence, more specifically that, “...countries with open economies will converge to the same *level* of income, although admittedly it will take a long time” (SW, 1995a:103), italics-SF). Still he did agree that, we are in a “...moment of ideological convergence” at the least, though he states there are no assurances that such “...will last in economics” (SW, 1995a:105). Despite his concurrence as to the ideological state of the profession, it was in other areas of the classification system that Fischer acknowledged their categorization presented problems and that it was “...nonetheless necessary to check the details

of the argument” (SW, 1995a:103). Fischer appears to read an incredulous air regarding several elements of the overall results despite the fact that in his official role he “...should accept the conclusion and move on” since the result “...provides so much comfort to the international agencies” (SW, 1995a:103).

Onward, Fischer very strikingly draws attention to the fact that “...by starting in 1970, the authors stack the deck against the import-substituting strategy” (SW, 1995a:103)<sup>92</sup>. Also, Fischer notes, given that the subject of the influence of openness on growth has been studied before, in addition to the fact that “...early result that openness contributes to growth finds increasing support from recent work” (SW, 1995a:103), e.g. Ben-David (1993,1994)<sup>93</sup>, “...[t]he strength of the Sachs-Warner results is surprising [as] no one has found such extraordinarily categorical results” (SW, 1995a:103). Fischer observes that “...whereas it is generally continuous in other papers” (SW, 1995a:103), Sachs and Warner’s results depend on “...the noncontinuous nature of the openness variable” (SW, 1995a:103), an apparently risky move as Fischer notes that it “...is particularly surprising that this paper reaches stronger conclusions than the World Bank’s famous 1987 *World Development Report*, which was so roundly criticized

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<sup>92</sup> He adds, “Whatever happened later, Latin American and African countries did quite well in the 1950s and 1960s, despite their perverse regimes. We should not be surprised that it took so long for them to open up” (SW, 1995a:103). Another paper similarly assessing Sachs and Warner’s construal of the historical basis for globalization is Bairoch and Kozul-Wright’s work *Globalization Myths: Some Historical Reflections on Integration, Industrialization, and Growth in the World Economy* (1996).

<sup>93</sup> Fischer notes that in his 1994 paper, Ben-David “...shows greater convergence among countries that trade more with each other, a result that points in the same direction as Sachs and Warner, but is more qualified” (SW, 1995a:103). Also Sachs and Warner cited his 1993 paper in which he shows “...strong convergence among the members of the European Community and the European Free Trade Area, with the dispersion of income falling as trade liberalization proceeded” (SW, 1995a:39). This would support Baumol’s *convergence club* thesis as well as allude to the concentration of wealth as liberalization proceeded over time. As cited in Sachs and Warner see: Ben-David, 1993. “Equalizing Exchange: Trade Liberalization and Income Convergence”. *Quarterly Journal of Economics*. 108(3):653-79. As cited by Stanley Fischer, see: Ben-David, 1994. *Trade Convergence Among Countries*. Houston. Houston University Press.

for overreaching” (SW, 1995a:104). For instance, explains Fischer, “...while it is impossible to categorize countries perfectly [...] I know for sure that Zimbabwe was not a socialist country in 1970; I do not believe that Jordan has been consistently open since 1970; Israel's trade reforms began in 1963, certainly *not* in 1985, and it did suffer from macroeconomic crises after opening; it is odd to have both India and Hong Kong classified as open in 1995, when their degrees of openness are so different; it is unclear why Lesotho and Swaziland are categorized as open and South Africa as closed, when all three belong to a customs union. Of course, any such summary scheme is bound to have difficulties” (SW, 1995a:103).

In regards to the openness criteria Sachs “...conceded that the criteria used in the paper is necessarily somewhat arbitrary and that it is difficult to pin down just when a country becomes open” (SW, 1995a:106), though he argues that “...the errors about timing are unlikely to be large when working with five-year intervals” (SW, 1995a:106). Warner added that “...the timing of events supported the causal interpretation of the paper” (SW, 1995a:105) and that “...the evidence in the paper on openness and macroeconomic crises measures openness in the 1970s and crises in the 1980s” (SW, 1995a:105). Naturally this would support the piece-wise structure of the analysis and results since it can be intuited that the policy choice of trade or self-sufficiency in the 1970s would logically lead to related consequences in the 1980s. Still, one could argue this to be an incredibly holonic approach since it is known that the countries pursuing self-sufficiency were quite literally under siege in economic warfare with the international



environment as it was not only "...the globalization of capital flows" that tended to "...punish bad policies and reward good policies" (SW, 1995a:104) that is, electing not to trade elicited punitive consequences as well. Agreeably, Sachs "...regarded trade reform as the single most powerful element of these programs, both because of its direct effects and because open trade forces adoption of other parts of the reform agenda" (SW, 1995a:106). He explains further that, "...[t]rade exerts this influence by imposing more rigorous competition, altering the political economy, constraining the government's macroeconomic policies and manipulations in the economy, and subjecting institutions that want access to international markets to the scrutiny and conditionality of the international environment" (SW, 1995a:106). Also Sachs maintains that these "...more far-reaching programs of reform" should be interpreted as approximated by "...trade liberalization [which] alone would not be sufficient" (SW, 1995a:106).

Taking a milder issue with Sachs and Warner's result that "...the land-to-labor ratio is the variable that determines the timing of trade liberalization" (SW, 1995a:104), Fischer found this nevertheless "surprising" (SW, 1995a:104). Recall, Sachs and Warner hypothesized that "...since it is plausible that governments will tend to be more responsive to the interests of labor over land owners" (SW, 1995a:32) in economies with lower land-to-labor ratios, they would expect faster liberalization under such conditions. Also recall their result was that "...a high population-to-land ratio raised the probability of an early trade liberalization" (SW, 1995a:33). Given this Fischer remarks that the "...argument

seems to assume that the country is a democracy” (SW, 1995a:104)<sup>94</sup>. He then makes the suggestion that “possibly the labor-to-land ratio is serving as a proxy for the country’s size” (SW, 1995a:104), though Sachs and Warner are very clear that “...the land-to-population ratio in 1960 [is acting] as a proxy for the land-to-labor ratio” (SW, 1995a:33). So by taking, alone, the crowdedness of a country for its human potential, its no small wonder that as a factor of earlier liberalization the authors were forced to acknowledge that, “surprisingly, size of population did not prove to be significant” (SW, 1995a:33), a matter that would indeed prove contentious for Viner who asserted that high quality, low quantity populations would be better off.

Overall in the general discussion the correlation between openness and growth via trade was the object of much commentary. For instance, T.N. Srinivasan put forth that “...trade policy and growth are both endogenous variables, making it hard to establish causality” (SW, 1995a:105), further, it was reported that “... [h]e criticized growth regressions in general because of such endogeneity and because of measurement errors” (SW, 1995a:106), additionally referring to some unpublished papers by Marcel Dagenais, at the University of Montreal, which show serious biases in such regressions due to measurement errors (SW, 1995a:106). Also it was pointed out by Srinivasan that the “...simplest version of neoclassical trade theory suggests that openness should have only a level effect, not a long-run growth effect” (SW, 1995a:106) to which

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<sup>94</sup> Though, historically, the expectations and meaning of a democracy can be opaque as, depending on the leadership, democracies can yield counterintuitive policy results. Sachs and Warner note that for example in Latin America from the 1950s to the 1980s “...protectionism tended to be favored during democratic periods [...] since workers could outvote landowners” (SW, 1995a:20).

Greg Mankiw, possibly sensing a need for balance, "...interjected that the level effect predicted by the neoclassical model still takes time to fully work itself, and so it appears to cause growth in time series" (SW, 1995a:106). Still, it appears that Srinivasan persisted in his point saying that "...[m]aking trade into an engine for growth required a resort to vague externalities" (SW, 1995a:106), such as extracting "...*indirect* adverse growth effects as a result of slower accumulation of capital, both physical and human" (SW, 1995a:51, authors' italics), from the assertion that protectionist trade policies reduce overall growth which might also affect rates of investment relative to GDP and therefore the rates of human capital accumulation (SW, 1995a:51).

The genius of Sachs and Warner, to the extent of this initial paper in the set, is the construction of their quantitative analysis and attendant rationale uncovering what they believe to be the centrality and crucial import of timing in trade liberalization and how this timing effect lends primacy to the trade liberalization facet of economic reform as a driver of global integration. Antithetical to the internationalization coalescing prior to 1914, new era of state building, part of the of post-independence movements in the developing world, followed the hegemonic readjustment in the post-war period. Sachs and Warner contend that a macroeconomic domino effect following the collapse of world trading system lead to the popularity of SLI policies. Restrictive imperial monetary policies rendered dependent currencies inconvertible and induced deep macroeconomic instabilities in its minor economies. These instabilities incited a pessimistic attitude toward exportation-based development and eventually

converged with the popularity of Marxism to support the socialist strategy of State-led Industrialization. According to SW, the natural order of capitalism was under siege in this macroeconomic and political economic environment; and the following 40 years, from the 1950s through the 1990s, was in fact a painstaking righting of the ship. Given this, SW base their argument that the popular redirection to self-sufficiency, or autarky, was the result of ideological and political factors rather than slow growth. To this end, Sachs and Warner assert that ideological and popular upsets must be checked to prevent future interruptions of the natural economic order. The following chapter reviews the influence of the tripartite era on the historical political-economic conditions surrounding the resource curse.

**Historical Background:**  
***A Review of Economic Reform and The Process of Global Integration***

**Introduction**

In the midst of the Cold War tension between central planning and the relatively laissez-faire mode of economic management, the systemically unstable, newly and post-independent nations of the third world were sitting targets for assimilation into a geo-political reality that could only be described as tri-partitioned. As Sachs and Warner open their paper to explain, a tripartite economic reality of the world was distinguishable by a combination of two factors: 1.) The level of per capita GDP associated with the management of industrial growth, and 2.) Whether that growth was precipitated by a.) State-run industrialization as in the second world, b.) Private enterprise as in the first world or c.) Some mix of both as in the third world (Sachs and Warner, 1995a:1). Drawing particular emphasis to history post-1989, this period is described by Sachs and Warner as one of the most dynamic times for "...institutional harmonization and economic integration among nations in world history" (Sachs and Warner, 1995a:1). The terms institutional harmonization and economic integration are defined as "...not only market-based trade and financial flows, but also institutional harmonization with regard to trade policy, legal codes, tax systems, ownership patterns and other organizational arrangements" (SW,1995a:2). The author's expressed that the goal of their paper was to

“...document the process of global integration and to assess its effects on economic growth in the reforming countries” (SW,1995a:2).

The author’s outline that “...while economic integration was increasing throughout the 1970s and 1980s, the extent of integration has come sharply into focus only since the collapse of communism in 1989” (SW,1995a:1). They go on to describe 1995 as the year by which the previous global structure had given way to the emergence a single dominant economic system. Though capitalism is not mentioned directly early on in their narrative, it is described as being associated with a common set of institutions, as exemplified by the World Trade Organization and the International Monetary Fund, which the authors explain as having the respective responsibilities of codifying the “...basic principles governing trade in goods and services” and to the “basic principles of currency convertibility” (SW,1995a:1). Sachs and Warner continue on to explain that the direct products of these institutions, commonly found in the developing world and post-communist environments, are the programs of economic reform having “...as their strategic aim the integration of the national economy with the world economy” (SW,1995a:2), entitled by the knowledge that “...international norms play a large and often decisive role in defining the terms of the reform policy” (SW,1995a:2). To this end, Sachs and Warner note that China’s commercial nod toward democratic principles as demonstrated by its leader’s commitments<sup>95</sup> to international property rights and trade policy are, along with Russia’s economic reforms, examples of the role of international norms in exerting reform pressure.

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<sup>95</sup> Presumably under the leadership of former president Jiang Zemin, protégé of Deng Xiaoping, and former premier Li Peng, both of the *People’s Republic*. <http://www.infoplease.com/encyclopedia/people/deng-xiaoping.html>. Accessed 6 November 2013.

The authors make the case that trade liberalization, or the international opening of the economy, not only allows for the consequence of reform pressure but that it is the “...sine qua non of the overall reform process”, and making it for several reasons, “... convenient and fairly accurate to gauge a country’s *overall* reform program according to the progress of its trade liberalization<sup>96</sup>” (SW,1995a:2-author’s italics). They explain that such an analysis, lends important resolve to the idea of world economic convergence by providing insight on the dynamics between cross-country growth trends, state-led industrialization, and private enterprise. While economic modeling, as well as long-held notions of the development process, suggests that poorer countries should be able to catch up to wealthier countries and thus lead to a global convergence of living standards, the theorized trend does not appear to hold true (SW,1995a:3). In theory, poorer countries should experience faster growth rates than countries that are already rich since they can import knowledge and technology from the richer nations and therefore learn, less expensively, overall, from hard won advancements. But Sachs and Warner posit that this is not the case and that it is the trade regime which readily explains this theoretical failure, such that “open economies tend to converge, but closed economies do not” (SW,1995a:3), in other words “ the lack of convergence in recent decades results from the fact that the poorer countries have been closed to the world” (SW,1995a:3). Sachs and Warner are far from

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<sup>96</sup> The authors acknowledge that while trade liberalization is but one part of a complete reform package which “almost always includes price liberalization, budget restructuring, privatization, deregulation, and the installation of a social safety net” (SW,1995a:2,) they argue that as part of an economic policy trade liberalization remains “...the most important” (SW,1995a:63) because it “...not only establishes powerful direct linkages between the economy and the world system, but also effectively forces the government to take actions on the other parts of the reform program under the pressures of international competition” (SW,1995a:63).

alone in the idea that a closed economy would limit the opportunities for advantageous exchange, and in fact the research team anchor the constancy of their focus on the trade regime to the venerable tenets of Adam Smith who supported “ the power of trade to promote economic convergence” (SW,1995a:3)<sup>97</sup>. It is from this vantage that Sachs and Warner argue that the theorized tendencies toward convergence should ensue with the spread of trade liberalization programs (SW,1995a:3), that is as trade liberalization affects an increasing number of formerly resistant economies, an increase in the instances of faster growth relative to richer countries should follow.

Their approach to documenting this process of global integration and showing that the trade regime is the driving factor consisted of measuring each country’s orientation to the world economy, meaning whether the country was open or closed to international trade, using cross-country comparable indicators of trade openness to answer questions about the role and implication of the timing of trade liberalization on subsequent growth and whether or not timing measurably affected the onset of economic crises or lent insight as to how such crises were avoided (SW,1995a:2). In highlighting this approach, Sachs and Warner discuss the patterns and chronology of trade policy reforms from the perspective of world economic history since 1850 (SW,1995a:3), which include a period of openness and internationalization prior to the economic closures of the post-war period. It is before this historical backdrop that the authors claim to demonstrate “the basic

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<sup>97</sup> The authors point out that “...Smith’s followers have stressed for generations, trade promotes growth through a myriad channels: increased specialization, efficient resource allocation according to comparative advantage, diffusion of international knowledge through trade, and heightened domestic competition as a result of international competition” (SW, 1995a:3).



proposition that open trade leads to convergent rates of growth” (SW,1995a:4). The remainder of the paper supports this demonstration with evidence of the success of trade liberalization programs in both the developing world and in the post-communist countries of Eastern Europe and the former Soviet Union. The authors aim to show that strong adherence to reform leads to greater economic performance than does weak adherence but that overall, “economic reforms lead to a renewal of economic growth” (SW,1995a:4).

### **Summarizing History:**

#### **Liberalization and Global Integration before 1970**

Sachs and Warner’s (or SW, henceforth) rendition of liberalization and global integration prior to 1970 begins by evoking the predictions of Marx and Engels who, in their *Communist Manifesto*, painted a picture of a world hollowed of its resources and refashioned in the likeness of Western Europe. The research team credits Marx and Engels with correctly sensing the “...unprecedented efficiency of the industrial capitalism” that was emerging in their time and “...the decisive global implications of capitalism” (SW,1995a:5). The authors also acknowledge the foresight of the political theorists in capturing the eventual spread of capitalism “...to nearly the entire world, in a complex sometimes violent process that dramatically raised worldwide living standards but also provoked social upheaval and war” (SW,1995a:5). The authors in no way suggest that the spread of capitalism was smooth or painless, rather they do suggest that there was

confusion caused after 1989 by “...the flush of the communist collapse” (SW,1995a:5) and in making that point occasion to remind the reader that “...global capitalism had emerged *twice*, at the end of the nineteenth century as well as at the end of the twentieth century” (SW,1995a:5-author’s italics). Sachs and Warner continue the reference to the short-twentieth century in referring to the peak of “...the earlier global capitalist system [...] around 1910”, which the authors suggest marks the first run of capitalism while “...the reemergence of a global, capitalist market economy since 1950, and especially since the mid-1980s, in an important sense reestablishes the global market economy that existed one hundred years earlier” (SW,1995a:5)<sup>98</sup>.

In no uncertain terms Sachs and Warner describe the environment of the prototypical economy and its related development activities under Western European leadership as “the first episode of global capitalism” (SW,1995a:5), approximating its commencement at 1840. In fleshing out their comparison of the late twentieth century to the late 19<sup>th</sup> century, the research team points out that, “the emergence of the first global system was based on the interaction of technology and economic institutions” (SW,1995a:7), and in doing so highlights the role of long-distance transport and communications in condensing international networks then as they do even today. The authors narrate the spread of railways across the world<sup>99</sup> as, “often built with foreign finance” as it tracked

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<sup>98</sup> It is important to note that the authors’ peers also criticized the selected parameter. Anders Åslund wrote that if, “...we focus on something other than trade liberalization, the parallel with the end of the nineteenth century does not hold. Another key feature of the period before 1914 was financial stability and currency stability, whereas our time is characterized by extreme financial instability” (SW,1995a:100).

<sup>99</sup> Defined as “India, Russia, the United States, and Latin America” (SW, 1995a:7).

the prosperous spread of capital opening “vast, fertile territories for settlement and economic development” (SW,1995a:7) along the way. Indeed innovation was key as the authors demonstrate that not only was industrialization the critical foundation of the mass production of military innovations, “particularly the breech-loading rifle in the 1840s” (SW,1995a:7), which shifted the military advantage to Europe, but medical advances as well. SW convey that malaria was a key deterrent limiting, “the spread of European settlements, domination, and investment, especially in Africa”<sup>100</sup> but that the prophylactic use of quinine “played a pivotal role” in redirecting development efforts in uncompromising tropical environments (SW,1995a:7). Sachs and Warner state that unequivocally the technological breakthroughs, “were as revolutionary in underpinning the emerging global system as those of our own age” (SW,1995a:7) and in doing so suggest that today’s “economic reform and the development of international institutions” (SW,1995a:5) go hand in hand with “the instruments of violent conquest and colonial rule” (SW,1995a:5) from a time when “Western European powers wielded their superior industrial—and hence military—power to challenge traditional societies around the world” (SW,1995a:6).

The authors highlight Japan as the only Asian/Near Eastern society that was able to “mobilize social and political institutions to support market reforms, implementing history’s first “shock therapy” reforms” (SW,1995a:6), while North Africa fell prey to France in the 1830s and 1840s, China to Britain by way of the Opium Wars from 1839-42, Russia to both Britain and France in a collaborative

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<sup>100</sup> Though Acemoglu, Johnson, and Robinson note that “...high population density made it less attractive for Europeans to settle” (AJR, 2001:8).

effort during the Crimean War from 1854-56 and India to Britain by 1857 (SW,1995a:6).

By Sachs and Warner's account, this period of warring and social upheaval established the lines along which the global market, by the 1870s, had begun to take shape with Western Europe and the United States constituting the principal industrial powers (SW,1995a:6) followed by Germany, Russia, and Japan to round out the early core of economic leaders in the world system. At this time, as Sachs and Warner explain, Latin America, having emerged from fifty years of "post independence upheaval, finally settled into market-based, export-led growth in the 1870s, based on raw materials exports and capital imports" (SW,1995a:6) while Africa, late to development and lagging farthest behind in the world-system remained under siege and, "was gobbled up by Western European powers in an orgy of imperial competition that reached its height between 1880 and 1910" (SW,1995a:6). The authors note that trade barriers remained low in Japan, especially, because of "unequal treaties" [quotes provided by SW], as well as in the economies of Latin America and Africa between the 1860s and the start of the First World War.

Beyond the human dimensions of proto-globalism, Sachs and Warner convey that the economic institutions of the international gold and silver standards<sup>101</sup> spread to become "nearly universal" in the period of post-1870s liberalism, eventually "embracing North and South America, Europe, Russia, Japan, China, as well as other European colonies and independent countries"

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<sup>101</sup> Currency convertibility is a key driver in the sustainability of international trade.

(SW, 1995a:7). This period of economic integration also included institutional harmonization closely modeled along the Napoleonic Code whereby “basic legal institutions, such as business and commercial codes, were widely adopted” (SW, 1995a:8). So remarkable was this earlier period of economic integration and institutional harmonization that the authors highlight the progressiveness of a period that could cultured the rise of the Universal Postal Union (1878), which Sachs and Warner exemplify as the first of a novel governance superstructure, the multilateral institution<sup>102</sup>.

In comparing the conditions that gave rise to the avant-garde global society of the nineteenth century with those of the twentieth century, SW explain that just as the current trend of liberalism is highly integrative, the emergent system was equally as impressive in its connectivity. They make the point that "the adoption of a stable currency tied to gold was seen as a key step in the strategy of international integration" (SW, 1995a:8) and while emphasizing that currency convertibility was key to the success of earlier economic reforms, posit that the strategy worked in tandem with a check on protectionism. Sachs and Warner parenthetically qualify two exceptions whereby tariff rates were relatively high in the United States and Russia but that overall "...a network of bilateral trade treaties kept protectionism in check in most countries" (SW, 1995a:8). They explain that the benefits of these treaties saw to it that, in Latin America, for example, "liberal market regimes stabilized under both democratic (Argentina and

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<sup>102</sup> In fact, the UPU was so remarkable that scholars still encourage the study of the institution as an example of advanced liberalism. For instance, Stanley Fischer tells of his LSE tutor, the late Leonard Schapiro, suggesting that someone take up the study of the UPU as an example of a successful international organization, though in the same breath he also notes that the UPU is more of a technical endeavor than political suggesting that such an organization would be more neutral geopolitically (SW, 1995a:101).

Chile) and authoritarian (Brazil and Mexico) political regimes" (SW, 1995a:8) and that in these four cases particularly, "overall growth of GDP and exports was very rapid, indeed historically unprecedented" (SW, 1995a:8). Sachs and Warner note that while under British rule India enjoyed similar export growth from 1870 to 1914 (SW, 1995a:8). The authors are clear in that they do not suggest that this unprecedented success was easily accomplished, in fact, the authors reference what appears to be the necessitated tricking of the Russians, by Count Witte into aligning themselves with the emerging standard of currency convertibility<sup>103</sup>. Additionally, Sachs and Warner explain that both Russia and Argentina, "nations as diverse" as any, still "struggled to adjust their economic policies, and especially their financial policies<sup>104</sup>, to attract foreign investment, particularly for railway building" (SW, 1995a:8). Harkening back to the dynamic relationship between economic institutions and technological innovation, Sachs and Warner remind their readers that economic reform focused on export-led growth is largely responsible for increased global prosperity measurable in terms of overall growth of GDP.

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<sup>103</sup> SW, 1995a:8 referencing Owen (1994): "Autocracy and the Rule of Law in Russian Economic History". Paper prepared for John M. Olin Lecture Series, Harvard University, Russian Research Center (October). Exact language as stated by Sachs and Warner is as follows: "In Russia, Count Witte recalled how he outmaneuvered the conservative tsarist court to introduce the gold standard at the end of the nineteenth century" (8).

<sup>104</sup> Heinrich (2011) differentiates between monetary and fiscal policies such that monetary policies are controlled and set by the larger international community whilst fiscal policies are directly set and controlled by the domestic government.

### **Key Supporters: Williamson, Reynolds, and Keynes**

To support their assertion, Sachs and Warner encourage their readers to examine "a series of important papers" by Jeffrey Williamson and his collaborators<sup>105</sup>, wherein they believe Williamson, et. al. has "...shown that the open international system at the end of the nineteenth century produced an era of economic convergence" (SW, 1995a:8). In Sachs and Warner's paper, they then describe examples of Williamson's convergence explaining that as a result of rapid growth Ireland and the Scandinavian countries, at the time characterized as peripheral countries in Europe, experienced a narrowed gap in real wages, comparable to their advanced neighbors, the U.K., France, and Germany (SW, 1995a:8). The authors point out that on the same basis, former European colonies in Latin America, Australia, and New Zealand "...similarly achieved convergent growth" (SW, 1995a:8).

In addition to Williamson et. al., Sachs and Warner summon the expertise of Lloyd Reynolds, who conducted a "...massive study of long-term growth in forty-one developing countries" and who the authors allege arrived at a similar finding that "...the open international economy of 1850-1914" that is, the period of proto-liberalism prior to the start of what would become the short twentieth century, "...was crucial in promoting the onset of rapid economic growth in much

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<sup>105</sup> Williamson (1992): "The Evolution of Global Labor Markets in the First and Second World Since 1830: Background Evidence and Hypotheses". *Working Paper on Historical Factors and Long Run Growth 36*. Cambridge, Mass.: National Bureau of Economic Research (February); Williamson (1993): "Economic Convergence: Placing Post-Famine Ireland in Comparative Perspective". *Discussion Paper 1654*. Cambridge, Mass.: Harvard Institute of Economic Research (September); O'Rourke and Williamson (1994): "Late Nineteenth Century Anglo-American Factor Price Convergence: Were Heckscher and Ohlin Right?" *Journal of Economic History*. 54(4):892-916.

of the developing world outside of Europe and North America" (SW, 1995a:8). In particular, Sachs and Warner draw attention to not only the following notation by Reynolds that "...politics apart, the main factor determining the timing of turning points has been a country's ability to participate effectively in the trade opportunities opened by expansion of the world economy", but also his identification of "... a wide range of countries the were indeed able to avail themselves of the burgeoning trade opportunities" including almost all of Latin America (except Venezuela), much of Asia, and parts of Africa<sup>106</sup>.

Rounding out the expert triad, Sachs and Warner call upon Keynes himself, whose opening in the pages of *The Economic Consequences of the Peace* (1919) is described by the authors as, "surely the most famous evocation of this remarkable international setting" (SW, 1995a:9). In the selected excerpt Keynes extols the strides of commerce in a time, before being abruptly halted by the commencement of the First World War in 1914, where the high-value Londoner, having yet risen from bed, could enjoy imported tea over an advanced communication system through which he made his desires known with every expectation that they would be carried out accurately and without delay. He could also, by the same means and expectations, "adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages". In the selected excerpt Keynes also talked of the liberality of global transit (uninhibited

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<sup>106</sup> Asian countries listed in Sachs and Warner included "but not limited to Ceylon, Burma, Malaya, Thailand, Japan, Taiwan, and the Philippines". African countries listed were Algeria, Nigeria, Ghana, the Ivory Coast, Kenya, Uganda, Tanganyika, and Southern Rhodesia (SW, 1995a:9).



global exploitation) and the role of currency convertibility in his expectation of freedom lest this man of wealth "consider himself greatly aggrieved and much surprised at the least interference". Still what Keynes points out as being above all else most important is the fact that such a man "regarded this state of affairs as normal, certain, and permanent, except in the direction of further improvement, and any deviation from it as aberrant, scandalous, and avoidable" (fragments taken from Keynes excerpt in Sachs and Warner, 1995a:9).

### ***The World After 1918***

Keynes's statements were published the year following the first world war, and it is understood by the authors, who in crediting Keynes's insightfulness, expound that from this war experience Keynes rightly intuited a deviation that would come to define the short twentieth century and thus see to it that "the Humpty Dumpty of world markets and shared institutions would not soon be put back together in the harsh peace that followed World War I" (SW, 1995a:9). By Sachs and Warner's account, the harsh reality of the post-World War I economic environment was punctuated by the failure of international gold and silver standards, e.g. the fact that the "...financial underpinnings of the late nineteenth-century liberal order were not reestablished" (SW, 1995a:7 on economic underpinnings), in addition to the demise of British dominance. The United States was still rather wobbly in its assumption of power at this time<sup>107</sup>, leaving Sachs

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<sup>107</sup> This unsteadiness is more fully explained by Prebisch's account in his *The Economic Development of Latin America and Its Principal Problems* (1950).

and Warner to declare that "...neither U.S. leadership nor international cooperation took its place" (SW, 1995a:9) indicating among the international constellation a vacuum was open. Latin America, being economically dependent upon the stability of the dominant nations, was left in a particularly precarious circumstance. Anticipating their forthcoming statements antithetical to Raul Prebisch's position, Sachs and Warner, go on to explain that in this harsh peace between the dominant nations "...the export-led growth of the primary producers in Latin America and elsewhere was undermined by low and unstable commodities prices in the 1920s, and then was devastated by the Great Depression, which brought the utter collapse in the terms of trade, intense protectionism in Europe and in the United States, and the end of capital inflows" (SW, 1995a:10), i.e. investment and borrowing.

Sachs and Warner ascribe the collapse in the terms of trade to the eventual undermining of the traditional political power of the landowners and mine owners, particularly in Mexico, Argentina, Brazil, and Chile, and further associating this collapse with the timing of revolutionary regimes that "...were heavily influenced by the state planning of the communist and fascist regimes in the Soviet Union and in Europe" (SW, 1995a:10). As the authors describe the political environment, they convey that the stage was being set prior to World War II, as "...state planning, authoritarianism, and militarism competed with limited government and market-based economies" (SW, 1995a:10). According to Sachs and Warner this competition was not only the catalyst for popular political upheaval, but it was accompanied by economic and military upheaval that was

flaring up throughout the world, from the commencement of the Russian Bolshevik Revolution in 1917 to the emergence of fascist states in Italy and Germany in the 1920s and 1930s (SW, 1995a:10). Sachs and Warner hold that the unexpected breakdown of the emergent capitalist system effectively provisioned a justification for experimentation in the pursuit of prosperity. In their words, despite the guidance of established economic theory relative to alternative strategies, "...political leaders felt compelled to push for new and radical experimentation" (SW, 1995a:10).

As Sachs and Warner narrate, the world was ripe for revolution after 1945. In their words, "...the international economic system was in shambles. International markets for trade in goods, services, and financial assets were essentially non-existent. International trade was destroyed by currency inconvertibility and a web of protectionist measures stemming from the Great Depression and World War II" (SW, 1995a:11). In a global environment so economically distressed, "...most of the world's population lived in countries that chose fundamentally nonmarket (sic) economic strategies for development", such that quantitatively, "...roughly one-third of the world's population lived in socialist countries [...] another 50 percent or so lived in countries where governments proclaimed a kind of "third-way" between capitalism and socialism, *state-led industrialization (SLI)*" (SW, 1995a:12- authors' italics). While pointing out that, "...the governments of almost all the developing countries adopted either socialist or SLI policies after World War II" the authors equally emphasize these outcomes as an aberrant state of the times. In making this case they expound on

the state of the world economy (as of 1994) writing that in 1960 "...around 20 percent of the world's population lived in open economies" but by 1993 "...more than 60 percent of the world's GDP, and more than 50 percent of the world's population, was located in open economies" (SW, 1995:12). They note particularly that if both Russia and China (which were not included in the 1993 calculation) were to "...cross the threshold to openness<sup>108</sup> [...] the proportion of openness by population would reach around 87 percent of the world's population; and the proportion of openness by GDP [...] around 83 percent of the world's GDP" (SW, 1995a:12).

Not to underestimate the salience of such a revolutionary period in economic history, Sachs and Warner dedicate nearly eight pages to an illuminating summary of the forces that led the majority of the world<sup>109</sup> down a path of socialist policy making.

### **Upheaval: Natural Laboratories and Social Experimentation**

The language of Keynes is supportive of Sachs and Warner's advocacy of capitalism as a historically superior economic system. Focusing on a selection of excerpts from Keynes's 1933 lecture on *National Self-Sufficiency*, wherein he refers to economic changes as experiments, the authors make the case that the

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<sup>108</sup> Sachs and Warner add here parenthetically that trade reforms of 1995 may be instrumental in their qualification as open economies.

<sup>109</sup> Understood as the "...long-independent economies of Latin America as well as most of the postcolonial countries of Africa, the Middle East, and Asia as they gained independence", including "...Eastern Europe and the Baltic States", where in these cases socialist policies were a result of the Soviet Union's imposition, rather than an organic upwelling of indigenous decision making (SW, 1995a:13).

“...collapse of faith in market institutions lived on to dominate most of the world through much of the post-war era” and that this, in an ironic twist<sup>110</sup>, then justified Keynes’s stressing of the fact that “...countries simply demanded the right to experiment with new economic models, since the old ones no longer commanded respect and assent” (SW, 1995a:11).

In threading references to the language of Keynes throughout the first section of their paper, Sachs and Warner pay special mind to their summary of the complex and myriad forces that reflected trade policy decisions, now appropriately placed as “policy experiments”, *quotes added by Sachs and Warner*, “(albeit enormously mistaken and costly ones<sup>111</sup>)” (SW, 1995a:13). In prefacing this summary the authors also take great care to differentiate between policy decisions and structural frameworks as the source of the social upsets during the period. In their words, “...socialist and SLI policies should be understood mainly as “policy experiments” [...], rather than as inevitable consequences of the economic structures of the countries in question” (SW, 1995a:13).

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<sup>110</sup> While the authors refer to Keynes’s fundamental reversal in belief, “...leading him to see aggregate demand management and international institutions such as the IMF as linchpins of a renewed global capitalist system” (SW, 1995a:11), a more subtle interpretation would find irony in that faith was lost in the emergent capitalist system catalyzing a nearly global revolution yet faith was also required to venture into what Sachs and Warner would deem to be exclusively experimental modes of management. So, while the “...genie of experimentation unleashed by the collapse of faith” (SW, 1995a:11) supported alternative modeling, those models would still require faith to endure.

<sup>111</sup> In the authors parenthetical statement “...albeit enormously mistaken and costly ones” a cyclical reference to Keynes’s language is made by secondarily referring to an excerpt included by Sachs and Warner wherein Keynes explains that, “...a deliberate movement towards greater national self-sufficiency and economic isolation will make our task easier [referring to making “...our own favourite experiments towards the ideal social republic of the future” <<http://www.panarchy.org/keynes/national.1933.html>> Accessed 23 September 2013., in so far as it can be accomplished *without excessive economic cost*” (Sachs and Warner, 1995a:11). Italics added by MM. In Sachs and Warner’s statement the qualifier ‘enormously’ weights socialist and SLI policies more heavily as an experiment even though it can be argued that Keynes referred to economic systems *in general*, as of 1933, as experiments towards the ideal social republic from which our favorite would be made and further, that the nature of experimentation was all the more illuminated by the failure of capitalism.

Categorically segregated into historical reviews covering the international economic forces, macroeconomic policies, intellectual beliefs, the incentives of state building, as well as the internal political economy of SLI strategies in developing countries Sachs and Warner present their views on the collective drivers of socialist popularization in the post-World War II period. The authors review these forces in anticipation of their greater presentation on the weight and role of trade regimes and economic reform.

### ***International Economic Forces***

As explained earlier currency convertibility was depressed globally as a result of the second great war, inducing a significant level of skepticism among the developing nations regarding their trading prospects; termed and accepted by a "...wide range of economic analysts" as well as by Sachs and Warner as "export pessimism" (SW, 1995a:14- authors' quotes). While the authors acknowledge such export pessimism as a rational response to international pressures<sup>112</sup> they nevertheless find that the response is unsatisfactory in explaining "...the behavior of about one dozen countries (mainly in Central and South America, [...]) that were relatively open in the late 1940s, but closed up during the 1950s and early 1960s", known as the "late protectionists" (SW, 1995a:14- authors' quotes),nor does it explain "...the persistence of closed policies in developing countries" even after the rich countries, namely "the United States, Canada, the European

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<sup>112</sup> The authors note Rodriguez (1974) who found that where countries use trade quotas to shift terms of trade in their favor, most often the Nash equilibrium leads to no trade since the optimum response of each country is to tighten their own quotas in response to everyone else doing the same. Rodriguez (1974) "The Non-Equivalence of Tariffs and Quotas under Retaliation". *Journal of International Economics*. 4(3):295-98.

Community, and Japan" having adopted more outward policies and re-stabilized currency convertibility by the 1960s (SW, 1995a:14). Ultimately Sachs and Warner did not accept export pessimism as a sufficient explanation for neither the revolutionary attitudes commonly observed in Central and South America, the liberalization delays, nor the resulting marked persistence of closed trading policies (SW, 1995a:14).

In seeking answers to these concerns the authors recognized that even though an interaction between currency convertibility pressures and trade policy designs created an environment of export pessimism, which the authors allege reasonably catalyzed a post-war rash of development closures therefore setting the floor for socialist policies, only a deeper analysis of concomitant factors would appropriately outline a full explanation regarding the persistence of such policies.

### ***Macroeconomic Policies***

To Sachs and Warner the importance of an established regime of currency convertibility and its influence on trade practices can hardly be overstated. And still, deliberate closures via trade policy were not the only way global market restrictions were effected. As the authors articulate matters, "...overly expansionary macroeconomic policies [...] (could also induce) a rise in the relative prices of import-competing goods, a reduction of imports, and a reduction of exports" (SW, 1995a:16).

Historically, the tightening of trade, which in aggregate drove export pessimism among developing countries, occurred with wartime income flows<sup>113</sup>, exacerbated by "...domestic price controls, foreign exchange controls, and extensive rationing of goods" (SW, 1995a:16), created a reflexively complex network of interactions that amounted to a significant amount of money in the system which ultimately needed to be removed to prevent another round of inflation-induced depression and currency inconvertibility. As the authors explain, "...by the end of the war, there was an enormous overhang of nominal money balances in most countries" and qualify that, for example, "...in the British Commonwealth, [...] the Indian government held large reserves of sterling which were restricted in use according to imperial monetary policy" (SW, 1995a:14). Sachs and Warner explain neoclassical prescriptions to such circumstances in that, "...the restoration of exchange rate convertibility required either a monetary reform<sup>114</sup> (to remove the monetary overhang); a temporary rise of prices and a currency devaluation (to absorb the monetary overhang through inflation); a long period of real economic growth to raise the demand for nominal money balances; or some combination of all three" (SW, 1995a:15, authors' parentheses).

Indeed inflation is unavoidable in any case, and Sachs and Warner call upon Milton Friedman's argument, long since a proponent for the unrestricted freedom of commerce, that convertibility is the monetary basis of free trade therefore the importance of both the basis (free trade) and the channel (currency

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<sup>113</sup> Sachs and Warner refers to this line of finance from the central bank to governments for the purposes of making wartime purchases, "inflationary finance" (SW, 1995a:14).

<sup>114</sup> That is, action on the part of international donors.



convertibility) is not to be understated in the urgency of its coordinated institution as less than, "... automatic[ally] and immediate[ly]" (SW, 1995a:15). In furthering currency convertibility the authors advocated the primacy of shock therapy, as Friedman suggests, to encourage growth and yet remain aware of the resistance of such a doctrine as the authors express that at the time, "...most countries shied away from the temporary inflationary consequences that would have accompanied such a move, even though they would have been one-shot rather than ongoing" (SW, 1995a:15). Sachs and Warner suggest that the hesitation of Europe and many other parts of the world to comply delayed the "...return to convertibility [...] for more than a decade after World War II" (SW, 1995a:15).

In this same vein, the authors remark that for some countries the hazards of delay were even longer lasting. Citing India as an example, and in anticipation of observations made later in the paper, the research team identifies that weak attempts at liberalization were easily reversed under populist pressures and the ideology of state control<sup>115</sup>. Ultimately, "...the initial macroeconomic pressures delayed the establishment of convertibility, while ideology and interest-group lobbying cemented the postwar policies of inconvertibility, licensing, and protection" (SW, 1995a:15) and in particular, populist fiscal policies<sup>116</sup> in Latin American countries "...repeatedly undermined the commitment to currency convertibility" (SW, 1995a:15) and allowed the emergence of significant import

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<sup>115</sup> To this end Sachs and Warner direct readers to the work of Tomlinson (1992): "Historical Roots of Economic Policy". In *Foundations of India's Political Economy: Towards and Agenda for the 1990s*, edited by Subroto Roy and William E. James, 274-308. Newbury, England: Sage Publications.

<sup>116</sup> Policies effected at the country level and therefore are more vulnerable to populist revision.

controls through the rationing of foreign exchange<sup>117</sup> (SW, 1995a:15). These actions essentially closed the economy and historically induced rationally retaliatory responses<sup>118</sup>.

### ***Intellectual Beliefs, State-Building and Political Economy***

In the ordered fashion of a warning shot, Sachs and Warner sum up the fecund ideological substrate that supported the populist movements against free-market principles, and in turn, both illuminate and orient their own ideological commitments in clear juxtaposition. The authors also establish their views on the relationship between ideology, the centrality of trade policy in state building, and geopolitics.

Returning to the premise of the short twentieth century, the authors explain that the nearly worldwide adoption of State-Led Industrialization and socialist strategies was as much about timing as it was about ideology and about alternatives in general; in the context of Milton Friedman's ideas, this is not illogical. It was he who stated of the role of crises in mitigating change, that "When [...] crisis occurs, the actions that are taken depend on the ideas that are lying around" (Friedman, 1962)<sup>119</sup>. Indeed given the aftermath of two world wars and the Great Depression, 1945 marked both the beginning and the end of a closely cultivated social order as the world was in the throes of crises with the

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<sup>117</sup> Defined and qualified on page Sachs and Warner, 1995a:25 as the black market premium (BMP).

<sup>118</sup> Such as bans, embargoes, coups, and other forms of economic-military interventions rationalized as essential for national security.

<sup>119</sup> Full quote reads: "There is enormous inertia—a tyranny of the status quo—in private and especially governmental arrangements. Only a crisis—actual or perceived—produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes politically inevitable" *Capitalism and Freedom Preface* (1982 ed., pg. ix).

only popularly acceptable resolution appearing to be the direct opposite of the assumed cause. Consequentially, the liberal worldview suffered on the vine as "...seemingly indefensible" (SW, 1995:16). Indeed, the authors call upon the foresight of J.A. Hobson and Lenin in noting that "...capitalism had proved to be rapacious and violent", as well as Keynes in his own subscription to a similar view in 1933 that "...capitalism was inherently unstable and needed the steadying rudder of the state" (SW, 1995a:16). The extreme the anti-capitalist sentiments allowed the spread of Marxist notions "...that profits were the result of the exploitation of labor" which proved to be an "...extraordinarily enticing explanation for elites in the poorer countries, who could justifiably view the poverty of their own nations as the result of degradations committed by the richer nations" (SW, 1995a:16).

The combined intellectual currency of Marx's notions in concert with the fact that "...Keynes had seemingly demonstrated capitalism was inherently unstable" buttressed the revolutionary idea that the role of the state, under such circumstances, was to lead a "...nearly full nationalization of future investment" (SW, 1995a:16)<sup>120</sup>. Amid the contributions of both renowned theorists, along with Hobson and Lenin came the theories of modernization via Rosenstein-Rodan, Gershchenkron, and Prebisch and Singer<sup>121</sup>.

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<sup>120</sup> Though the authors treat socialism as a revolutionary response to the failure of capitalism, at least in the developing nations, they also remind the reader that in fact nationalization had already been attempted in "...many other Western European countries, and not just in the developing and socialist worlds", for example under Charles De Gaulle of France and Clement Atlee of Britain "...it should be remembered that banking, insurance, and much heavy industry were nationalized" (SW, 1995a:16).

<sup>121</sup> While remaining unnamed, in contrast to the other highly influential intellectuals listed alongside their contributions, the theory associated namely with Prebisch of Prebisch and Singer nevertheless was attended

By Sachs and Warner's account, the views of Rosenstein-Rodan and Gershenkron were related in that Rosenstein-Rodan developed the theoretical strategy of the "big push", being the belief that "...coordinated, large-scale public investment was necessary to make a breakthrough to modernizing industrialization", and Gershenkron argued that just such an investment was historically supported by the record of nineteenth-century Europe "...in which the countries lagging in industrialization increasingly relied on the state to catch up with richer countries" (SW, 1995a:16). Conversely, Sachs and Warner suggest that Rosenstein-Rodan's "big push" concept was perverted in its combination with a characteristic of the Latin American experience, the previously discussed, *export pessimism*, which produced, "...the highly influential view that open trade would condemn developing countries to long-term subservience in the international system as raw materials exporters and manufactured goods importers" (SW, 1995a:17). In SW's narration, comparative advantage as argued by "...the Economic Commission of Latin America (ECLA) and others, was driven by short-run considerations that would prevent raw materials exporting nations from ever building up an industrial base" and therefore justified the protection of infant industries as vital to developing away from "...their over dependence on raw materials production" (SW, 1995a:17). Sachs and Warner note that these views were highly prolific throughout the United Nations system and were even sanctioned by GATT<sup>122</sup> in 1964. Sachs and Warner convey the injustice of what the GATT sanction implied in their expression of the following:

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to with strong remarks. Additionally, given the audience of the Brookings Papers on Economic Activity, this cavity was surely observed.

<sup>122</sup> General Agreement on Tariffs and Trade

"...[W]hile the developed countries should open their markets, the developing countries could continue to protect their own markets. Of course this "right" (*quotes-SW*) was the proverbial rope on which to hang one's own economy!" (SW, 1995a:17)<sup>123</sup>. Sachs and Warner follow their declaration to profess that "...more radical anti-capitalist views fueled Marxist-inspired revolutions in nearly two dozen countries during the postwar period" (SW, 1995a:17). In support of their views Sachs and Warner call upon Forrest Colburn who, "...offers a masterful evocation of the underlying symbols common to these revolutions" by putting "...great stress on the role of ideas, rather than the political economy in motivating revolutionary leaders" (SW, 1995a:17). According to Colburn, "...[T]he trajectory of contemporary revolutionary regimes illuminates why, at least in poor countries, the choices of political elites are so consequential. In many such countries, political elites are not significantly constrained by the institutions and norms of government, or by civil society. Thus, the time for experimentation and implementation of ideas can be dangerously compressed" (Colburn, 1994:103, as cited in Sachs and Warner, 1995:17). That is to say the red tape of bureaucracy embodied by either rule of law states or rule-of-state laws<sup>124</sup> dramatically slows the spread and implementation of revolutionary fires. This is

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<sup>123</sup> Such rights, as Todd Moss, author of *African Development* (2011) explains, while clearly contentious and especially debatable as to their effectiveness, are also known by their function as "special poor country provisions" which allow LDCs to "...maintain trade barriers they believe to help support their development needs and strategies" although it will cost them since this LDC-opt out in practice means "...these countries are excluded from some of the main decision making since they have made themselves irrelevant" (Moss, 2011:225), that is to say alternative development strategies are punitively discouraged.

<sup>124</sup> Robert Cooter, as cited by Karla Hoff, defines a Rule of Law State as a state governed by laws that mirror social norms, and defines a Rule-of-State Law as states where laws are imposed and enforced from above. Hoff, K. (2001). "Beyond Rosenstein-Rodan: The Modern Theory of Coordination Problems in Development". In *Proceedings of the Annual World Bank Conference on Development Economics*. 2000 (pp. 145-88). Referencing Cooter, R. "The Rule of State Law and the Rule of Law State: Economic Foundations of the Legal Foundations of Development". *Annual World Bank Conference on Development Economics*. 1996. Washington, D.C.: World Bank.

especially so given the well-honed suppression capabilities associated with the "tyranny of the status quo"<sup>125</sup> which so settles the crevices of pre-revolutionary conditions.

### ***The Centrality of Trade Policy in State Building***

In making the case for the centrality of trade policy in state building, Sachs and Warner enlist the likes of Eli Heckscher, Alexander Hamilton, and Friedrich List who all subscribed to the notion that industrial policies are a "crucial mechanism by which new nation states consolidated their political power both relative to competing domestic interest groups (such as guilds and local gentry) and other nations" (SW, 1995a:18). SW presented several contemporary cases exemplifying a rationale that remains unchanged among the headliners and new comers alike.

The authors suggest that in mimicking the established industrial economies, the founding fathers of the post-world war II newly independent industrialized economies, namely Sukharno of Indonesia, Nehru of India, Nkrumah of Ghana, and Nyerere of Tanzania, "were as concerned about the political consolidation of power as they were about economic strategy per se" (SW, 1995a:18). In the authors' view this was especially the case when, "...countries used such policies to build up a military-industrial establishment" (ibid:18), referencing particularly Russia, the Soviet Union, as well as Nehru's India and Nasser's Egypt as examples.

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<sup>125</sup> Refer to footnote 25 for details.

### ***Political Economy***

Sachs and Warner explain that geopolitically, trade policy is a good deal more than the "outcome of the relative political strengths of various factional, class, or sectoral interests" (SW, 1995a:18) or the given understanding of interest-group politics. The authors posit that while such political considerations have been important, they have been more so in "the perpetuation of policies [rather] than in their onset" (SW, 1995a:18). This is to say that the construction of popular consensus behind the policies more greatly influenced the longevity of the SLI policies than did merely the interest-group view of trade policy. In support of this position, Sachs and Warner call upon John Waterbury<sup>126</sup> who showed that "ideology, state building, and geopolitics, rather than domestic interest groups, were the fundamental forces that initially led to SLI" (SW, 1995a:19).

### ***Macroeconomic Dimensions of Socio-politics***

To capture the more purely economic aspects of geopolitical environment, Sachs and Warner refer to the basic Heckscher-Ohlin-Samuelson (HOS) and Ricardo-Viner (RV) models of trade in order to make suggestions about interest groups in terms of favoring either free trade or trade protection (SW, 1995a:20). The authors refer to the way in which the models complement each other since both utilize several characteristics of the factors of production (capital, land, labor), i.e. particularly their abundance or scarcity preference and autarkic or trade favorability (HOS), as well as their immobility (RV), to explain what specific

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<sup>126</sup> Sachs and Warner refer reader to Waterbury (1993) *Exposed to Innumerable Delusions: Public Enterprise and State Power in Egypt, India, Mexico, and Turkey*. New York: Cambridge University Press. Pgs. 69-70.

preferences of interest groups are implicated and under what circumstances. Sachs and Warner explain that, Ronald Rogowski and others have found that the HOS model holds that a closed trade regime gives way to an open regime following the abundant factors of production (land and labor) and consequentially reduces the real income of the scarce factors of production; implying that relatively scarce factors of production would favor autarkic policies. For instance, if land is abundant, landowners would favor open trade (“to raise the export prices of foodstuffs”, (SW, 1995a:20 [therein raising domestic prices]) while workers would favor closed regimes (“against the import of labor intensive goods and the export of foodstuffs”, (SW, 1995a:20). Conversely, if labor is abundant, the workers would favor open-trade (“to benefit from the export of labor intensive goods and to import inexpensive food, (SW, 1995a:20) while landowners would favor closed regimes (“to raise the price of foodstuffs in the local economy, (SW, 1995a:20)<sup>127</sup>.

Complementarily, the RV theory picks up to suggest a consequence of factor immobility between sectors. Whether factors can move and take advantage of opportunities has an affect on interest preferences to the extent that when capital or labor is liberalized, self-interested protectionism is decreased,

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<sup>127</sup> A note on labor abundance: The presence of people does not necessarily make labor abundant. Industries credit labor as abundant or scarce based on the level of education and training relevant to industrial needs. For example, an electronics manufacturer would find labor abundant in Taiwan rather than in Kenya where land is not only absolutely more abundant, but relatively more abundant as advanced technology-trained labor is scarce. So countries with undereducated, undernourished workers will likely favor autarkic management of a land-based economy while a country with educated or trained workers will likely favor a free-market managed industrial economy. Whether the upper classes in either scenario consist of wealthy landowners or industrialists, the service sector tends to remain relatively stable over time as wealth accumulates over time.



irrespective of the relative abundance or scarcity of land (immobile), as both factors are unhindered in locating and taking advantage of alternative opportunities. This holds *except* when place-based investments have been made on the parts of capitalists and workers. Under these conditions capitalists and workers will then lobby on behalf of their vested interests, at times even unifying to do so for collective interests, while using ‘Chinese wall’ tactics to lobby for competing interests.

Such was the case in Latin America when, given the ripeness of the time, terms of trade collapsed in the early 1930s, to the extent that "wealth and power of the free-trade supporters, the large landowners and mineowners, [had been] sapped by the collapse of the terms of trade" (SW, 1995a:19) these smaller landowners were so much better able to advantage themselves that "a domestic import-competing sector arose naturally in the 1930s and 1940s" (SW, 1995a:19). Yet fortunes were primed to change in the immediate post-war era leading "the import-competing sectors, which now faced the threat of renewed trade competition, [to] add their voices to other forces lobbying in support of state-led, autarkic policies" (SW, 1995a:19). More simply, the smaller landowners, vested their interests with the large landowners with whom the supportive authoritarian government was already vested to the end of promoting free trade<sup>128</sup>. Sachs and Warner explain that the formulation of the timing and circumstances behind the installation of state-led, autarkic policies supportive of free trade principles can be

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<sup>128</sup> This is understood by the verbiage "free trade, [...] was typically promoted by authoritarian governments, siding with large land owners and mine owners" (SW, 1995a:21).

calculated under the combined rubric of the basic Heckscher-Ohlin-Samuelson (HOS) and Ricardo-Viner (RV) theories.

Given a mainly agricultural and extractive economy, the authors elaborate that under HOS, large landowners and those with vested interests would favor free trade over autarky because land is the abundant factor of production. When land is the abundant factor the real income of workers (the scarce factor of production in this case) is reduced which incentivizes them to be in favor of autarky; presumably, because free trade might bring in mechanization or simply better trained, more experienced workers. In addition to the implication of HOS, Sachs and Warner point out that the relevant highlight of the RV theory, is that “firms with sunk capital in the import-competing sector, and workers with skills specific to that sector, should tend to favor protection of the sector” (SW, 1995a:20). Collectively then, the condition under which large landowners, small landowners, and related workers would all be unified in their support of protection (autarky) would have been in the immediate post war era as the threat of renewed trade was raging, at least this was the case in Latin America. Taking the nature of interest group politics into consideration, this behavior is by no means unusual as the authors cite the case of Nehru’s India where, “many key industrial backers [...] had vested interests” (SW, 1995a:19) as well<sup>129</sup>.

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<sup>129</sup> This thread regarding corruption is picked up in the next sub-section on *Socio-cultural Dimensions of Geopolitics*

In applying the two theories, SW observed Ronald Rogowski's<sup>130</sup> work, of which they claim found that the HOS/RV theories held in its combinative ability to describe the relation of Asian economies to Latin American and African economies. Where in Asian economies land is the scarce factor (and labor for advanced manufacturing is abundant) as opposed to Latin America and Africa where land is abundant (and labor for advanced manufacturing is scarce). The implied pattern of the operation of free trade within in these geographic regions<sup>131</sup>, and relative to each other is significant for at least two reasons. Firstly, the point of delineation between internal free trade advocates and protectionists (at the national domestic level) is the same as between these regions at the global level. Meaning that a theoretical line dividing the economies of these global regions, and the issues along that line at an international level, would remain the same line and attendant issues, that divide protectionists and free trade advocates at the domestic, nation-state level to culminate in a pattern where the outcome of free-trade interests are inverse about each other relative to the national and international levels of economy.

For example, taking the rhetorical context of domestic party-politik and global internationalization, the middle-income countries and domestic middle-classes<sup>132</sup> occupy the same positions about the theoretical delineation where class is the theoretical delineation (producers and consumers). This relation is aptly

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<sup>130</sup> From authors see: *Commerce and Coalitions: How Trade Affects Domestic Political Alignments*. 1989. Princeton, N.J.: Princeton University Press.

<sup>131</sup> Here I am aggregating the Latin American and African experiences for the limited purpose of illuminating the pattern.

<sup>132</sup> Whatever the income-level of the country where a middle-class exists.

characterized by Sachs and Warner's assessment of Rogowski's work product, since the *conditions* under which free-trade is favored by workers within Asia are the same conditions under which free trade is also favored by landowners within Latin America/Africa. This means that free trade prevails where opportunities are conditioned for profit optimization. Inversely, if comparing the economy of Asia to that of Latin America/Africa, by the same accordance region to region, one would find that free trade would less dramatically rest with Asia's labor-intensive economy while it would otherwise need to be forced upon Latin America/Africa's land- or resource-intensive economy where the conditions for profit optimization are more often catered to and thus captured and promulgated by the elite rather than by the larger working classes as in Asia.

The second significant feature is of a more formally linguistic nature. The inverse behavioral pattern of the applicability of free trade rhetoric, suggests that the effectual meaning of democracy is dependent upon context, while the words used to describe or insinuate democracy<sup>133</sup>, remain the same irrespective of context. For instance, even though protectionist policies are associated with what is nominally understood as non-democratic regimes or closed, rather than open, free-trade regimes, Sachs and Warner describe Latin America during a period "...where from the 1950s to the 1980s protectionism tended to be favored during democratic periods" (SW, 1995a:21) whereas liberal democratic principles were effected by the affluent.

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<sup>133</sup> Related to the concept of free trade by the characteristic word "liberty", and phrase "pursuit of happiness", coupled to give free-trade as the unrestricted pursuit of happiness. Of course access and means as the tools of power has everything to do with an ability to pursue happiness even if restricted, so certainly an unrestricted pursuit would call more upon power than even liberty itself, which is merely open space, affords.

Given the implications of the HOS-RV theories and the outcomes established by Rogowski, the authors drive home the point that, "it might seem that a labor-intensive economy would tend to lean more readily toward free trade than would a land-intensive (or resource-intensive) economy" (SW, 1995a:21). On the systemic level, economic integration, institutional harmonization and related control measures are crucial in the management of this extremely tight knot of interaction between free-trade proponents and implementation specialists for the developing nations, as well as domestic managers in Asia, Latin America, and Africa<sup>134</sup>.

Essentially, the drive to manifest global integration begets the need for control of global integration. To this effect the authors grant that, "[o]f course, the relative power of the various interests to influence trade policy will depend on a myriad factors, including the capacity of competing groups to organize politically and the institutions for political competition (for example, elections or military rule)" (SW, 1995a:20-authors' quotes), where elections can either support or suppress free trade policies and thus affect the flow of capital, or where military rule can either support or suppress labor mobility. For example, the authors note that "...some labor-intensive economies, such as the South Asian countries [...] were long protectionist, while labor-scarce Chile became the first sustained free trader in Latin America (although, notably, under a military regime)" (SW, 1995a:21-authors' quotes). These, in fact, are additional instances of outcomes

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<sup>134</sup> Here world-system analysis does well in the study of global management in terms of global north-south power relations, sovereignty and drivers of economic independence.

counter-indicative of those expected normally from Rogowski's application of HOS/RV.

### *Socio-cultural Dimensions of Geopolitics*

With continued emphasis on Latin America and Africa, Sachs and Warner conveyed that urban density is a volatile factor affecting free trade. Having earlier showed that historically, postwar governments trended toward a propensity to revolt, the authors make the point that "...political power has been disproportionately concentrated in urban areas, thereby adding the political weight of labor relative to landowners and turning the trade regime more protectionist" (SW, 1995a:21). Under such pressure, they explain that, "...postwar governments have tended to respond more to labor interests than landowner interests". Given the implications of the HOS-RV theories and the outcomes established by Rogowski this would be understandably necessary for management reasons such as the consensus-building "...search for votes, or the fear of labor unrest, or the urban bias promoted by government sector workers" (SW, 1995a:21), though the latter is presumably a reference to bureaucratic corruption. In this regard Sachs and Warner link deeply entrenched corruption, associated mainly with Latin American and Indian autarkic regimes but especially with sub-Saharan African leadership, where in fact the previous imperial infrastructure, in this case the "...wartime controls on agriculture, became postwar mechanisms of a profound

anti-export bias" (SW, 1995a:19)<sup>135</sup>. In a presentation that anticipates the authors' conveyed sentiment of egregiousness toward the African practice of monopsony<sup>136</sup> Sachs and Warner called upon an illuminating excerpt by author of *West African Trade*<sup>137</sup> P.T. Bauer, to assert that a long-held sub-Saharan African export bias is tied to an ironic twist of historic structural utility.

Lending a "brilliantly explained [...] critique of African agricultural monopoly boards (SW, 1995a:19) Bauer explains the British wartime policy objectives after which African marketing boards modeled their own efforts. In three parts, the first was to "...deny supplies for the enemy and secure them for the Allies, particularly the United Kingdom", the second was "...a prevention of the collapse of the local price of cocoa" while still the third principle objective "...was to increase the export of groundnuts and oil palm produce after 1942" (SW, 1995a:19). Additionally Bauer characterizes the "...machinery of export control" for which the following principle elements were key in the wartime policy objectives of Britain, in the first being the "...licensing of exports to direct these to specific destinations [...] the second was statutory monopoly in the principle exports" followed by the third which "...was a system of quotas in the purchase of export produce" (Bauer,1954:256 as cited by Sachs and Warner,1995:19).

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<sup>135</sup> This would not be the first time colonial structures have been grandfathered in, such is the case with the Berlin-derived bordering system, replete with arch-nemesis mash-ups that still rage on today, however evolved in current times. An example would be the Kikuyu and Luo peoples of Kenya, East Africa.

<sup>136</sup> A buyer's monopoly wherein rather than a large seller, a large buyer— in this case an African government— controls a larger proportion of the market and drives prices down.

<sup>137</sup> Bauer, (1954). *West African Trade: A Study of Competition, Oligopoly, and Monopoly in a Changing Economy*. Cambridge: Cambridge University Press.

SW then continue on with Bauer and turning to Robert Bates<sup>138</sup> for a further explanation of how "...these original intentions were later subverted into very different aims" (SW, 1995a:19)<sup>139</sup>. Those aims are recognized throughout the authors' currently referenced work as the marks of autocratic socialism being "...the expansion of bureaucratic power; the enhancement of government tax revenues through the monopoly purchases of agricultural output at below-market prices; and the tilt of the internal terms of trade in favor of urban (largely government) workers, and away from peasant cultivators" (SW, 1995a:19). Additionally, in many cases, a centrally located and corrupted government apparatus is behind the wielding of these subverted aims to the detriment of its poor masses. Still even this is not always cut and dry as the authors do point out that "...the sub-Saharan African countries relied extensively on export monopolies on foodstuffs, in part to maintain low domestic prices of food for urban residents" (SW, 1995a:26) i.e. themselves, and in the case of urban migration, those coming from the rural areas to find work, one hopes.

### **Concluding History**

In having established a review of liberalization and global integration prior to 1970 from the perspective of the short twentieth century, including special

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<sup>138</sup> Bates (1988). *Toward a Political Economy of Development: A Rational Choice Perspective*. Berkley: University of California Press.

<sup>139</sup> It is important to note that this type of subversion is an example of a non-linear externality associated with the special problems of development under non-parity conditions. The historical problems in modeling such issues is a topic taken up later in this thesis as it has direct bearing on Sachs and Warner's linear prescriptions.



emphasis on the tripartite world after 1945, the authors go on to explain how the timing of trade policies was influenced by this history.

Sachs and Warner have shown how labor interests are related to free trade adoption and trade liberalization in the developing world but hold that labor interests and interest group politics are far from the determining factors since neither are decisive enough to be so, despite the fact that on these grounds "...trade liberalization would come more readily in Asia than in Latin America or Africa (SW, 1995a:21). In positing trade openness as the more qualified factor for consideration, Sachs and Warner explain how their method of classification by timing of trade liberalization is poised to provide valuable insight to the relationship between open trade and convergent rates of growth, therefore speaking to the larger debate on free trade and global convergence.

### **Sachs and Warner on the Classification and Timing of Trade Policies**

Without a doubt the pre-war economic history<sup>140</sup> juxtaposed against the post-war forces previously discussed could only have marked a great rift in time for the interaction between global backwardness and cosmopolitan society. By the authors' own classification "...seventy-eight developing countries outside of the Soviet bloc chose some form of inward-looking development strategy in the postwar period" (SW, 1995a:21) and only by way of painstaking effort, by 1994 a little less than two-thirds of these countries were open economies, was this

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<sup>140</sup> Sachs and Warner focus on the period 1850-1914.

circumstance “...gradually reversed over the next forty years” (SW, 1995a:21), beginning in the 1940s and 1950s.

The following section summarizes the authors’ explanation of how the “...chronology and patterns of trade policy reforms” (SW, 1995a:3), that is, how the classification and timing of trade policies can be understood in its role of prolonging the desired economic equilibrium globally or in other words sustaining what “...postwar liberalization has painstakingly restored”; that being “...an open trading system somewhat reminiscent of the world in 1900” (SW, 1995a:3)<sup>141</sup>. Sachs and Warner describe the process of liberalization as “...parallel” between the developing countries, which would have been modernizing via SLI policies, and the developed economies, which approached modernization via cooperative free-trade. In already hinting at the benefits of strong and early reform, the authors convey that integration had been more easily instituted among the developed economies and thus arrived earlier in the 1950s and 1960s rather than in the 1980s and 1990s as was the case for the developing countries (SW, 1995a:22).

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<sup>141</sup> Despite the insidiousness of the statement and yet to the authors’ great credit, they note the “...crucial” difference between now and then being primarily that, “...developing countries in Africa and Asia are now sovereign, rather than colonies of Western powers” followed secondarily by the fact that now more than ever “...the world economy is increasingly supported by international commercial law agreed to by individual governments and implemented with the support of international institutions such as the WTO and the IMF” (SW,1995a:3). It is not even debatable whether developing countries in general, but especially in Africa, are economically sovereign, most are not as they are indebted to the Bank, the Paris and London Clubs, and the IMF and are faced with accepting short-run development strategies in order to pay off the debts.

## Cross-country Indicators of Trade Openness

The authors classified a country as having a closed trade policy if one of the following five characteristics (SW, 1995a:22) were met:

1. Nontariff Barriers (NTBs) covering 40 percent or more of trade.
2. Average tariff rates of 40 percent or more.
3. A black market exchange rate that is depreciated by 20 percent or more relative to the  
official exchange rate, on average, during the 1970s and 1980s.
4. A socialist economic system (as defined by Kornai<sup>142</sup>).
5. A state monopoly on major exports.

An open economy is determined as having none of the five qualifying conditions (SW, 1995a:24).

In a series of tables<sup>143</sup> the authors delineate the total dataset by: date of trade liberalization<sup>144</sup>, those qualifying economies that were initially closed in the post-war period but then opened by 1994, those qualifying economies that were still closed by 1994, those economies qualifying as ‘temporary liberalizers’<sup>145</sup>,

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<sup>142</sup> From authors see: Kornai, Janos. 1992. *The Socialist System: The Political Economy of Communism*. Princeton, NJ.: Princeton University Press. (Table 1.1)

<sup>143</sup> These tables cover 8 “developing economies that have always been open”, 43 “developing economies that had opened by 1994 after initial closure”, 35 “developing economies that were closed at the end of 1994”, 22 “developed economies with year of opening”, and 26 “post-communist countries with year of opening”, respectively. The 118 countries mentioned come from table 6.

<sup>144</sup> “...taken to be the year from which the economy is open continuously through the end of the sample period, 1994” (SW,1995a:24).

<sup>145</sup> Where “...the date of opening is taken to be the date at which the openness criteria are finally met without subsequent reversal up to 1994 (in effect ignoring the temporary episode of openness)” (SW,1995a:24).

those developed economies along with their year of opening, and the liberalization record of the post-socialist European economies<sup>146</sup>.

Sachs and Warner judged the timing of the shift from closed to open trade by examining the time series of tariff and non-tariff barriers through an independent literature review (SW, 1995a:24).

Since there are many ways to effect a closed economy the authors also provide basic trade barrier data<sup>147</sup> for 118 developed and developing countries, for the mid-1980s<sup>148</sup> (except where indicated). The following data categories were chosen “...in order to cover all of the major types of trade restriction” (SW, 1995a:25) average tariff, quota coverage, black market premium for the 1970s, black market premium for the 1980s, export marketing board, and socialist (SW, 1995a:27). Where tariffs are considered an overt trade policy (SW, 1995a:25), diametric to *laissez faire*, central planning—which is covered under the *socialist*<sup>149</sup> header—is considered systemically subversive therein qualifying it as a closure measure. Because “...export controls are symmetrical with import controls in their effects on closing an economy” (SW, 1995a:25), the black market premium (BMP) is included as a classification because it is a form of import control taken to evince “...the rationing of foreign exchange” (SW, 1995a:25). The further delineation between the BMP for the 1970s and the BMP for the 1980s, particularly tumultuous periods for SLI and socialist supporting countries

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<sup>146</sup> The authors used established standards of openness from the EBRD (European Bank for Reconstruction and Development) to define this list.

<sup>147</sup> Data classifications derived from United Nations Conference on Trade and Development (UNCTAD).

<sup>148</sup> To this extent the authors’ note “...the tariff and nontariff barriers are for the mid-1980s” (SW,1995a:24).

<sup>149</sup> “...used as an indicator to cover countries like Poland and Hungary” (SW,1995a:25).

as trade orientations came under attack and crises hit in the '80s, seems to suggest that the authors are highlighting the effect of anti-closure interventions via the free flow of foreign exchange.

The tabulation of the data allowed the authors to observe that there were only a few countries that had been continuously open since their independence or since 1946<sup>150</sup>, while many more pursued inward-oriented growth in its hey-day of the 1950s and 1960s, and still a few only closed “quite late in the period”<sup>151</sup>.

***Simple Propositions:***

***Testing Socialist Policies as Trade Growth Drivers***

Because history, from the vantage of the short-twentieth century, is a platform for making the case that trade liberalization is the critical element for “...integrating an economy with the world system” (SW, 1995a:1) Sachs and Warner spend considerable time outlining the history of global integration, from 1840 right up to the mid-1990s to include the successes of the East Asian economies. Still, the weight of this paper, rests with the authors testing of four of “...the simplest propositions that arise from political economy considerations” (SW, 1995a:32) involved in the process of global integration.

Returning to Sachs and Warner’s application of the Ricardo-Viner and Heckscher-Ohlin-Samuelson theories in concert with the work of Ronald Rogowski regarding the construction of popular consensus behind SLI policies

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<sup>150</sup> “...Barbados, Cyprus, Hong King [sic], Malaysia, Mauritius, Singapore, Thailand, and the Yemen Arab Republic” (SW,1995a:26). Hong Kong was released by Great Britain in 1997.

<sup>151</sup> Bolivia (1978), Ecuador (1983), and Jamaica (1973). (SW,1995a:26).

and its effect on interest group behavior toward free trade for Asian and Latin American/African economies, these considerations are that, "...timing should be related to the relative endowments of labor and land, the size of the economy, the per capita income, and perhaps the previous political history<sup>152</sup>" (SW, 1995a:32).

### **The Hypotheses**

In outlining their hypotheses to be tested the authors add that "...[i]n a later paper we intend to specify a detailed model of the timing of liberalization during the post war period" (SW, 1995a:32). With a broader aim toward "...examining the timing and implications of trade liberalization for subsequent growth" (SW, 1995a:1) those hypotheses consisted of:

**I.** An expectation that "...the transition to openness to be faster in land-scarce and labor-abundant economies, since it is plausible that governments will tend to be more responsive to the interests of labor over landowners" (SW, 1995a:32).

**II.** An expectation that "...the transition to openness to be earlier in less populous economies since the gains from trade are presumably larger for an economy with a small domestic market (SW, 1995a:33).

**III.** An expectation that "...countries that begin the postwar era with a high per capita income would be more likely to liberalize, because of a higher initial level of division of labor and degree of specialization within the economy (SW, 1995a:33).

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<sup>152</sup> Parenthetically the authors note, "...for example, number of years since independence" (SW,1995a:32).

**IV.** An expectation that “...postcolonial countries would be less likely to liberalize (because of the “imperatives” of nation-building<sup>153</sup>) than countries that have long been independent (SW, 1995a:33). The authors also include three dummy variables as stand in approximations for the effects of “...post-colonial status<sup>154</sup>”, the association as a “...British Commonwealth country” and another for the association as a “...former French colony”. The colonial dummy approximations were added “...on the grounds that the type of colonial relationship might affect the timing of postcolonial trade liberalization” (SW, 1995a:33)<sup>155</sup>.

Sachs and Warner tested these hypotheses with an estimated logit model (N= 72)<sup>156</sup> that took into account whether a country “...liberalized between 1955 and 1970” or “...did not liberalize before 1970” (SW, 1995a:33). To this effect, an output of their equation was the classification of sixteen developing countries that had liberalized between 1955 and 1970. The model also took into account a “... the land-to-population ratio for 1960 as a proxy for the land-to-labor ratio, the population in 1960, the per capita GDP in 1970” (SW, 1995a:33).

## **The Results**

The expectations were met for hypotheses one, three, and four, respectively: an increased probability of liberalization concordant with a high population-to-land ratio, that high-income countries are more likely to liberalize before low-income

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<sup>153</sup> Such imperatives are described by Sachs and Warner as mobilizing the population with rallying cries of self-sufficiency, “...specifically as a way to foster national unity and political power of the national government” after a long struggle with the imperial power (SW,1995a:18), or in some cases to “...bolster the military potential of the state” part and parcel of the institutional course of a military-industrial complex (SW,1995a:18).

<sup>154</sup> Whether independent before 1945 (SW,1995a:33).

<sup>155</sup> For instance, French colonists residing in Franco-Africa may have found that since imports were cheaper as a result of the relatively depressed local economy, living in the African colonies afforded a luxurious and privileged lifestyle, if one could manage the temperatures and other stressors, as a result of “...the overvalued exchange rates in the French franc zone” which led to the delay of former French colonies (SW,1995a:33-Footnote:47).

<sup>156</sup> “...countries with GDP per capita of less than \$5,000 in 1970” (SW,1995a:33).

countries, and that post-colonial countries would be less likely to liberalize as opposed to those long independent. This latter result pertains to the former French colonies as, the authors also report that the "...dummy variable for British Commonwealth status was not statistically significant" (SW, 1995a:33). In returning to the authors' contribution to the dialogue on the successes in Asia, given the result of hypothesis I, the authors more directly associate the Asian Tiger/Cub economy successes with trade liberalization in general, and with early liberalization in particular, noting of the "...statistical evidence that a high population-to-land ratio raised the probability of an early trade liberalization" that "...this fact helps to account for the early liberalization in much of Southeast Asia" and "[s]imilarly, high income countries tended to liberalize before low income countries" (SW, 1995a:33). It is conveyed here in this latter statement the authors' emphasis of a key point to be made continually throughout their paper that early liberalization leads to market-based success as exemplified by the overall case of Southeast Asia.

The result for hypothesis two, that the transition to liberalization would be earlier in less populous economies, was counter to expectations. The authors acknowledged that, "[s]urprisingly, size of population did not prove to be significant" (SW, 1995a:33) <sup>157</sup>.

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<sup>157</sup> Indeed this is quite surprising from the vantage that it is also counter to one of the classical notions of economic growth as explained by Viner in the literature review for the current thesis. In short, Viner asserted the notion that one of the elements of growth is the quality and quantity of the working population. A society of consisting of a high quality (education/nutrition/sanitation), low quantity population would enjoy the fruits of labor and be in a better position to save, and thus accumulate wealth than would a lower quality, higher populated society. Not only would there simply be more to go around but the recipient earners would know what to do with it. This notion is translated by Sachs and Warner as "...since gains from trade are presumably larger for an economy with a smaller domestic market" (ibid:33). It would appear that the



## **Sachs and Warner on Ideological Barriers to Trade Policies**

Prior to concluding part I of *Economic Reform and the Process of Global Integration*, Sachs and Warner placed special emphasis on liberalization episodes in the 1950s and 1960s, as a time when a “...parallel process of integration was underway in the developed economies” (SW, 1995a:22), as evidence that “...political and ideological shifts” (SW, 1995a:35) were the basis of aberrant trade policies. Their representation of the period, and of ‘temporary liberalizers’ in this way suggests the importance of addressing ideological barriers to trade liberalization.

Sachs and Warner define ‘temporary liberalizers’ as those postwar economies characterized by “...initial closure (failure on one or more of the five criteria [...]), followed by subsequent opening” (SW, 1995a:24) and note that most economies in the postwar era were temporary liberalizers by this score. Still more particularly, the authors have identified fifteen countries<sup>158</sup> that, while having experienced an episode of temporary liberalization, additionally represent the return to reason epitomized by the premise of the short-twentieth century. The authors explain that, “...in almost all cases, these are countries that had a tradition of open trade, which was resurrected immediately following the Second World

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authors have found that the potential gains from trade are not enough to induce a less populous economy/country into liberalizing.

<sup>158</sup> As listed by Sachs and Warner in Table 9 with average growth rates for open versus closed periods: Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Kenya, Morocco, Nicaragua, Peru, Sri Lanka, Syria, Turkey, and Venezuela (ibid:34).

War” (SW, 1995a:35). In buttressing the larger argument that the free-market system of enterprise is the equilibrium state, being the natural economic order, to which all anomalous economic experiments will return (either through the institution of democracy or military intervention), the authors contribute to the far older but equally as exciting discourse on declining terms of trade as the vehicle of slow growth<sup>159</sup>. They explain the importance of understanding that “...the eventual decision to close the economy was generally *not* caused by slow growth during the open period” (SW, 1995a:35-authors’ italics) but in fact by “...political and ideological shifts within each country” as “corroborated by economic histories of these countries, which rarely give slow growth as the reason for the policy switch” (SW, 1995a:35).

Sachs and Warner forward their finding that “...in twelve of the fifteen cases, average growth in the open period exceeded that in the subsequent closed period” (SW, 1995a:35) as evidentiary support that ideology, while being a strong substrate, ultimately produces inferior outcomes when cultured with popular idealism rather than classical iterations of practical expertise. To this end the authors also present the later temporary liberalizations and high average growth rates of Sri Lanka (open from 1977-83 after a closure from 1957-1977) and Venezuela (open from 1989-1992 after a closure from 1960-1989) as additional support of the claim that ideology, not slow growth induced policy transitions. More forwardly, the authors proclaim, “[o]verall, we find little direct evidence

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<sup>159</sup> While attending strongly to their contribution the authors again refrain from acknowledging by name the leading discussants, understood by the current author to be mainly Raul Prebisch.

that slow growth played an important role in ending these episodes of liberalization” (SW, 1995a:35)<sup>160</sup>.

### **The Impact of Postwar Global Integration on Economic Performance, 1970-1989**

According to Sachs and Warner the current economic state of the developing nations is the consequence of the ideological spread of anti-market sentiments, which were politically embodied and, wielded to guide policy decisions; and as such lends an answer to the question of whether economic integration is leading to economic convergence or not. To this end the authors respond that, indeed, economic integration would lead to economic convergence (poorer countries growing faster than richer countries) so long as the poor nations opt-in to integration schemes. In their words there is a “...close relationship between economic integration and economic convergence [...] as long as the poor and rich countries are linked by international trade” (SW, 1995a:35), such that “...[p]oor, closed economies have often performed significantly less well than the richer countries” (SW, 1995a:35).

To demonstrate this, the authors utilize the nineteen-year period from 1970 to 1989 as a collective finish line with which to compare the economic outcomes of countries open in the 1950s and 60s, that is those countries with

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<sup>160</sup> Indeed, especially in the cases of Sri Lanka and Venezuela, where growth was much higher at a respective 5.37 and 6.17, it appears that the second period of temporary liberalization significantly outpaced the first period and where average growth rates were 0.48 (1950-1956) and 3.88 (1950-1959), respectively (SW, 1995a:34-Table 9 notes c and d).

long-standing open trading policies, to the outcomes of those of countries closed for some or all of the same period. In examining "...the effects of late trade liberalization on economic performance" they found that "...open economies outperformed closed economies on three main dimensions [...]: economic growth, avoidance of extreme macroeconomic crises, and structural change" (SW, 1995a:35).

### **Postwar Global Integration on Economic Performance in Terms of Openness and Growth Trends**

While it is clear that the unspoken argument to which Sachs and Warner give no quarter is the Prebisch-driven premise that slow growth induced a rash of self-sufficiency, given an analysis of growth data for open and closed economies, and taking into account transition states (temporary closures) and the emergence of openness (late liberalizers), the authors draw several interpretations from the growth patterns.

Primarily they find "...no cases supporting the frequent worry that a country might open and yet fail to grow" (SW, 1995a:44). The authors also deny that their results are attributed to reverse causality or sample selection bias finding "...little support for the idea" and instead assert that they simply find "...very few examples of developing countries that started open, performed poorly, and then closed as a result" (SW, 1995a:44). They reiterate three key features of their argument:

**I.** “The far more common case is that developing countries started closed, performed

poorly, and then opened” (SW, 1995a:44).

**II.** “Most developing countries started out closed” (SW, 1995a:45).

**III.** “The few that had temporary episodes of liberalization had high growth rates during the open period” (SW, 1995a:45).

In keeping with these premises Sachs and Warner hold “...[i]t is therefore hard to argue that slow growth caused the turn to closed policies” (SW, 1995a:45).

Rather the authors re-assert “...it seems that for reasons unrelated to growth performance [i.e. ideological spread], the developing world in 1970 was sorted into a large group of closed economies and a much smaller group of open economies” and “twenty-five years later, sufficient time has passed for us to see the effects of this fundamental policy choice on growth” (SW, 1995a:45). Even though they assert that the “...evidence so far suggests that being open to international trade has been sufficient to achieve growth in excess of 2 percent for developing countries (SW, 1995a:45), the authors anticipate the question of necessity given that even their own data show “...there are four developing countries that are classified as closed during the period and yet had per capita growth of more than 3 percent per year during 1970-89” (SW, 1995a:45). Sachs and Warner lent an interpretation for each exception: Botswana, China, Hungary, and Tunisia, but ultimately in their opinion, China, truly “...is the only puzzle”

(SW, 1995a:45), though despite its theoretically paradoxical nature, "...it is essentially consistent with the importance of open trade" (SW, 1995a:45). Thus the case of China is given to deeper interpretation, both comparatively in terms of the authors' interpretative efforts toward the three other exceptions and analytically as a function of the current thesis.

### **Openness Report:**

#### **The Growth Effects of Trade Liberalization in Developing Countries Since 1975**

In the previous section Sachs and Warner were able to show that economies open during the period of 1970-89 fared far better, in terms of avoiding balance-of-payment shocks and high inflation, than economies closed during that period.

This section summarizes and discusses the authors' report of outcomes among an aggregate of late liberalizers. Beginning with their assessment that "...there are thirty-eight non-communist reformers that have opened their economies since 1975 and sustained the opening until 1993" (SW, 1995a:57), Sachs and Warner examined the growth of three sub-classes consisting of 37 (including Israel) non-communist recent reformers, the 25 post-communist transition economies (the former Soviet Union and Eastern Europe), and another 36 countries that "...did not even achieve a temporary liberalization during 1980-93" (SW, 1995a:57).

**5.1 Evaluating the Sachs-Warner Set:**

***Natural Resource Abundance and Economic Growth (1995/97)***

Having already established the history of contending policy environments to make a case for poverty as a consequence of poor policies in *Economic Reform (1995a)*, thereby holding for initial income and trade-specific policies, in *Natural Resource Abundance and Economic Growth (1995b, 1997<sub>R</sub>)* SW more particularly address the relationship between the quantity of natural resources and economic growth, to draw a contrast between the economic outcomes of relatively resource-poor and resource-rich countries.

In a continuation of testing the empirical weight of trade openness as a representation of good economic policies, SW run a series of robustness tests. These two papers, NRAEG I and NRAEG II, essentially do little more than report out results of these tests in an effort to dispel claims of selections bias and reverse causation.

The NRAEG II revision of 1997 additionally, "...presents extensive robustness analysis of the results" (Lederman and Maloney, 2002:2) to show that their key finding, that the basic "...negative relationship is present after controlling for other relevant characteristics of the economies, such as initial income levels and trade policies" (SW, 1995b:2), remains even after a comprehensive comparison with the posited factors of previously published

studies by Barro (1991); Mankiw, Romer and Weil (1992); DeLong and Summers (1991); King and Levine (1993).

To frame these results SW pose the question “...[i]s there a curse to easy riches?” (SW, 1995b:3), the authors go on that while, costs of transportation are decreasing the “...[endogenous] natural resources are no longer a decisive advantage to economic growth”, still, “...it is surely surprising that they might pose an actual disadvantage” (SW, 1995b:3)<sup>161</sup>. By the authors’ account the “...failure of resource-led growth in the 1970s and 1980s” has been noted by previous researchers, while none before them have “...confirmed the adverse affects of resource abundance on growth on the basis of a worldwide, comparative study of growth” (SW, 1995b:3) as they do in this paper. Implicitly, their results support the social hypothesis that “...easy riches lead to sloth” (1995b:4) and have proven to facilitate a related political economic hypothesis that “...resource rich economies are subject to more extreme rent-seeking behavior than resource poor-economies” as the government leaders, termed ‘national politics’, are “...oriented to grabbing the rents earned by the natural resource endowments” (1995b:4). From this point the case is made against improving terms of trade or supporting the endogenous development of natural resource deposits as such “...can lead to a “feeding frenzy” in which competing factions fight for the natural resource rents and end up inefficiently exhausting the public good” (1995b:3). Sachs and Warner note that the research of Gelb (1988) and Auty (1990) “...lend much support to these political channels of influence” (1995b:3).

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<sup>161</sup> This is a bit of a satirical assertion since cheaper oil as well as cheaper acquisition and production costs is part of the decrease in transportation costs when taking into account the larger logistical network, such that cheaper transportation costs are endogenous to the political-commercial conditions.



The authors also address a set of possibilities they term to be “strictly economic”<sup>162</sup>, involving the Prebisch-Singer hypothesis and closely related views, such as those holding “...that world demand for manufactures would grow faster than demand for primary products or that the rich countries would be more protectionist against primary imports than manufacturing imports” (SW, 1995b:4). SW convey that while these concerns are not even necessarily incorrect, the real problem, is the practical policy recommendation of avoiding trade until some level of parity, that is, true competitiveness, has been reached. Evoking the basis of *Economic Reform (1995a)*, SW more formally explain that “...[t]he great historical mistake of this thinking, however, was to recommend industrialization through prolonged import-substitution behind tariff and quota barriers, rather than through export promotion” (SW, 1995b:5)<sup>163</sup>. SW summarizes the views related to the Prebisch hypothesis in saying,

“A second set of economic arguments against natural-resource-based growth [sic.] involved the purported characteristics of the domestic economy rather than the international economy. The work of Hirschman (1958), Seers (1964), and Baldwin (1966) encouraged the view that beneficial “forward

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<sup>162</sup> In the forthcoming chapter on resilience thinking and CAS approaches I will argue that this may not be strictly the case, since such cut and dry economic problems lend themselves to formal modeling more easily than those with deeper social dimensions and other non-convexities.

<sup>163</sup> Note the inclusion of the word ‘prolonged’, relative to ‘great historical mistake’ and ‘import-substitution behind tariff and quota barriers’. This is very revealing because, as will be discussed later, every wealthy northern country made this mistake of protecting their infant economies until they were ready to graduate into the world, not only this but these countries then traded preferentially with each other which is clearly a very logical thing to do. The problem arose when southern countries employed the same means and competition ensued. As much as the neoclassical rhetoric praises competition, the neoliberal models are designed to yield monopolies eventually flushing out all competition, as will be shown in (SW, 1999). So ‘prolonged’ merely means, from north to south, longer than it took us to do what they’re still trying to do, therefore they must be incompetent or its just not the right strategy for their success. Obviously both are mostly wrong since there are always nuances, interruptions, and outright extraversion at play.

and backward linkages” from primary exports to the rest of the economy would be small. The basic idea was that manufacturing, as opposed to natural-resource production, leads to a more complex division of labor and hence to a higher standard of living. The negative assessment of resource-based development in due course led to a revisionist literature describing successful cases of staples-led growth. See for example Roemer (1970) on Peru, and further success cases reviewed in Lewis (1989)”<sup>164</sup>

*Natural Resource Abundance and Economic Growth*

(Sachs and Warner, 1995b:5)

Paul Krugman explains that Hirschman’s theory of forward and backward linkages is related to Rosenstein-Rodan’s theory (1943) of the economics of scale whereby external economies are created such that the coordinated industrialization of the economy arises and employment follows as surplus labor is absorbed from lower paying agriculture and recruited into higher paying manufacturing<sup>165</sup>. As each external economy comes into being (taking on hires) and matures (reaching advanced innovation), a complex division of labor and a higher standard of living arises after which international trade becomes especially beneficial since not all production opportunities will be exploited leaving room to trade for domestically unavailable consumptive desires, the income to afford them, and the trading parity to command better pricing. In combination with the

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<sup>164</sup> From authors see: Roemer on Peru in *Fishing for Growth: Export-led Development in Peru, 1950-1967*. Cambridge, MA: Harvard University Press, 1970; and Lewis for additional revisionist histories of staples-led successes

<sup>165</sup> Paul Krugman’s “Development, Geography, and Economic Theory”. 1995.

Prebisch hypothesis the idea, then, was that natural resource production, as a big push, would lead to manufacturing followed by a complex division of labor and so on, such that natural resource production would be a substitute for foreign investment which tended toward hair-trigger capital flight or in the post-war period case of Europe and the United States, upon which Latin America depended, self-preservation.

Thus SW's claim that the "...negative assessment of resource-based development in due course led to a revisionist literature describing successful cases of staples-led growth" would indicate that cases of successful staples-led growth (natural resource-based growth) while it has been known to happen and cases can be found in the literature, they are nevertheless illegitimate. Recall the larger historical context and that the point of entry for natural resources in development was initially positive, since the "resource-rich economies such as Britain, Germany, and the U.S. experienced particularly rapid industrial development at the end of the last century" (SW, 1997:3), [the 1880s onward], so that while the resource curse literature typically begins the timeline for the earlier convention about the 1950s, it is because of this period of resource-led development<sup>166</sup>. Naturally, a theory such as the big push would be posited to assist poor countries, since it had been shown to work. The advent of Prebisch's hypothesis regarding the secular decline in the terms of trade brought to light the circumstances under which resource-led development would not work, thus state-led industrialization and import-substitution industrialization was quite valid from

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<sup>166</sup> Canada is included, to which the assertion of staples-led growth directly applies, i.e. Canada's resource-based economy founded on staples such as wheat and fur.

the development perspective of poor countries during the 1950s, 1960s, and 1970s.

However this would be incredibly unpopular with what are now wealthy but resource poor nations needing markets for their goods and energy for their markets. So as the tide began to turn in the 1960s, and 1970s with colonial emancipations and other social revolutions erupting world wide, socio-economic experiments, nothing less than economic warfare, ensued so that by the 1980s and 1990s natural resource abundance had become bad for development and remains the dominant scholarly opinion that holds into the present.

### **The ‘Resource Curse’ and the Metaphorical Use of ‘Dutch Disease’**

The discovery of natural resources, in industrial quantities, can create a host of problems from inflation management of the overall economy to sectoral management crises within the economy. The ‘Dutch disease’ touches on both of these problems. The ‘Dutch disease’ is a two-part problem, though generally modeled in three sectors, relating to industrial economies. The key issue is the simultaneous management of the extractive and manufacturing sectors, which if done improperly, can lead to a devastating loss of capacity in the manufacturing sector, as the notoriously volatile extractive sector will cause inflation, especially when it is on an upswing, and again if the manufacturing sector incapacitated during a downswing. Sachs and Warner explain that, “...when an economy experiences a resource boom (either terms-of-trade improvement, or a resource

discovery), the manufacturing sector tends to shrink and the non-traded goods sector tends to expand” (SW, 1995b:6).

Sectoral competition for labor, as it offers better wages, can leech the manufacturing sector of human resources, which in theory are flowing into the extractive sector, driving up the costs of production. Since increased production costs are passed on to the consumer base, competitiveness is reduced as manufactures are generally elastic, and cheaper substitutes will do. Reduced competitiveness translates reflexively into reduced production capacity, which is funded by sales directly, and indirectly through stockholders tied to firm profitability. If the manufacturing firm can not reverse the effects of reduced competition and recapture the market the reduction in production capacity can become crippling and when the extractive sector hits its inevitable downswing, where a strong manufacturing sector would have been able to buoy the economy, a much reduced manufacturing sector would lack the capacity to do so, often to the detriment of external economies as well, leading to the macroeconomic depression of a entire economy. As Sachs and Warner explain, “the greater the natural resource endowment, the higher is the demand for non-tradeable goods, and consequently, the smaller will the be the allocation of labor and capital to the manufacturing sector” therefore the shrinkage of the manufacturing sector is dubbed the “disease” (SW, 1995b:6-authors’ quotation marks).

The way SW explain the resource boom experience would easily justify denying an improvement in the terms of trade on the grounds that such would induce ‘Dutch disease’ effects and thus contribute to further impoverishment but

it assumes corrupt leadership. ‘Dutch disease’ normally impacts industrial economies but preindustrial economies with relatively high amounts of natural resource wealth can exhibit ‘Dutch disease’-like effects operating through windfalls of resource rents. These rents can suppress endogenous industrial development if captured by unscrupulous government leaders or expended upon technical expertise that fails to properly guide development to international competitiveness. In the context of preindustrial economies or developing countries, the ‘Dutch disease’ is closer to a metaphor for rent-seeking governments than it is close to its original definition<sup>167</sup>.

Recall that Hirschman and Rosenstein-Rodan’s theories worked in concert with the Prebisch’s theory on the secular decline in the terms of trade to increase the standard of living through the state-directed, as opposed to market-directed, utilization of resource-based development approaches to modernization. It would be considered the slow-track to development, relative to an infusion of foreign capital and its attendant problems, but it would and has worked. Still, it was Prebisch’s realization of a secular decline in the terms of trade that helped to catalyze efforts at national self-sufficiency in developing countries. Arguing to prevent an improvement in the terms of trade not only justifies that there is a secular decline in the terms of trade but that it is more politically intentional than market-driven<sup>168</sup>.

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<sup>167</sup> There are also ‘Dutch disease’ effects associated with foreign aid, which can also cause inflation, but it to can be captured and thus the metaphorical representation would apply here as well.

<sup>168</sup> I say this lightly as markets are not ideologically apolitical.

While a contraction of the manufacturing sector characterizes an economic disorder leading to such places as the ‘Rust Belt’ and the former City of Detroit, in the U.S. Midwestern region, Sachs and Warner note that “...there is nothing harmful about the decline in manufacturing if neoclassical, competitive conditions prevail in the economy” (SW, 1995b:6). This suggests that the disease could be in fact a socially efficient decline in growth given free movement of labor and capital globally such that manufacturing will colonize where it is most efficient, that is more often than not, wherever labor and transport will be cheapest. The rationale is that everyone would be better off, eventually, and benefit from cheap prices for goods.

Nevertheless, because resource abundance can catalyze ‘Dutch disease’ effects, when the authors examine cross-country growth for the 1970-89 period and “...ask whether the evidence from the past 20 years [sic.] supports the notion that abundant natural resources depresses growth”, they report finding “...the answer to be yes” (SW, 1995b:7). *Natural Resource Abundance and Economic Growth* concludes with SW maintaining that “...a key division that matters is for endogenous growth effects is tradable manufacturing versus natural resource sectors” that conditional convergence is a fact of life as “...suggested by neoclassical models of economic growth” thus SW “...also find that trade policy matters enormously for growth and for convergence, as summarized by our SOPEN variable (and related results in Sachs and Warner (1995[a])). Not to be misunderstood in their leaning SW note that “although this paper does find evidence for a negative relation between natural resource intensity and subsequent

growth, it would be a mistake to conclude that countries should subsidize or protect non-resource-base [sic.][industries] as a strategy for growth” (SW, 1995b:22). In citing their research from *Economic Reform*, the authors reiterate their argument that “...the evidence from the recent past suggests there are simpler and more basic policies that can be followed to raise national growth rates, especially open trade” (SW, 1995b:23). Presumably, the authors are referring to the economic effects experienced by strong trade reformers after rapid adoption of structural adjustment packages. Though the authors acknowledge that, “...welfare implications of resource abundance can be quite different from the growth implications. Resource abundance may be good for consumption even if not good for growth; policies might be good for GDP growth while reducing real consumption” (SW, 1995b:23), the nevertheless maintain that “...government policies to promote non-resource industries would entail direct welfare costs of their own, and these could easily be larger than the benefits from shifting out of natural resource industries” (SW, 1995b:23). This refers back to the recent future/distant future results in *Economic Reform* where even though such government support could decimate the growth of an ongoing economy by 88% within 1-3 years trade enforcement and economic reform, the long term benefits might be worth the hit in terms of GDP growth.

Where consumption is a measure of what people tangibly have access to and are able to take possession of, the authors recognize that while socialist-development policies and natural resources may be bad for GDP growth, they could, in fact, be good for social welfare and thus human capital. The authors



recognize that the converse could also be true thus leadership ultimately makes the most impactful difference. SW exemplify this point in noting that their results “should not be taken to deny that there are benefits from good policies regarding natural resource exploitation. Compare, for example, the experiences of the primary producers in Asia, namely Malaysia, Indonesia, and Thailand with those in Africa (see Roemer, 1994)” (SW, 1995b:23).

## **5.2 Evaluating the Sachs-Warner Set:**

### ***The Big Push, Natural Resource Booms and Growth (1999)***

#### **Introduction**

Rosenstein-Rodan asserted that since the "...theory of growth is very largely the theory of investment" (Rosenstein-Rodan, 1957:2) and a high initial investment in social overhead capital (SOC) is required to attract investment in manufacturing, that not only did these conditions lead to a highly uneven, "lumpy", investment field among underdeveloped countries, but that this in fact was "...one of the main obstacles to development of underdeveloped countries" (Rosenstein-Rodan, 1957:8)<sup>169</sup>. The investment paradox here is that investors need modernized social overhead capital (roads, utilities, security, etc) needs to be in place before manufacturing investments, "directly productive investments" (8), can be made yet the income that manufactures bring is required for investment in SOC, therefore a substantial initial investment is required to break out of the poverty-creating underinvestment cycle. The coordination and long-run economic management of this initial capital was termed "programming", effectively, managed development. State-led development was especially necessary in underdeveloped countries because, even in a system based on constant returns (static competitive economy), the "...allocation of investment [...] is necessarily

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<sup>169</sup> Rosenstein-Rodan, P.N. "Notes on the Theory of the "Big Push"". *Center for International Studies*. MIT. Cambridge, MA. (March 1957).

an imperfect market” (2), but those markets in underdeveloped countries “...are even more imperfect than in developed countries” (3), that is, the “[p]rice mechanism in such imperfect markets does not provide the signals which guide a perfectly competitive economy toward an optimum position” (3), where the price mechanism is said to allocate the distribution of goods and imperfect market is “...a market on which prices do not signal all the information required for an optimum solution” (2).

For Rosenstein-Rodan, and others subscribe to this and related theories, a more appropriate system for an economy with the special problems of an underdeveloped country, that is the poverty trap, would instead be a dynamic coordinated economy. Here the initial investment would be of such a scale as to induce external economies so that the growth of a national economy was based on size of the firms, size of the markets (which already is in a reflexive relationship) and the increasing returns to scale between them. Eventually, industries if large enough to begin with, would spawn additional industries, learning-by-doing and innovation would increase, leading to increased employment and higher standards of living. Since the labor force is working in these industries there would be unexploited economies of scale, and thus consumer goods deficiencies, which international trade could then address.

Of course this ‘slow-track’ process of development, based on a solid foundation of social overhead capital, takes time, uninterrupted effort to prevent the unnecessary prolonging of the process, and most importantly, “vision at large [...] as well as good foresight of future development” (7) such that a critical factor

of a successful state-led development effort is the “...sufficiently organized force to organize” (16) the overhead assets and induce the reinforcing loop of the economics of scale<sup>170</sup>. The creation of external economies is paramount to the ‘big push’ method because it sustains the economy through the creation of descendent industries, such that while SOC is the means, coordinated industry is the end. As Rosenstein-Rodan explains about the output of social overhead capital, “...its services are indirectly productive with long gestational periods and delayed yields. Its most important “products” are investment opportunities created in other industries” (6:quotations-RR). Thus, with regard to endogenous resources, the “big push” model of development asserts that a “...minimum quantum of investment is a necessary (though not sufficient) condition of success” (1), and therefore inherently requires a leadership environment that values integrity to the extent of political embodiment, as well as checks, to see that such opportunities are managed well and for the long-term. But even before the opportunities arise they must be sown such that the minimum quantum of investment, itself, must be managed with integrity and competence to derive the emergent processes that will then guide the economy away from poverty traps such as poor education, nutrition, sanitation, and healthcare.

Here one can see immediately the ideological challenge between state-led development and laissez-faire development as the former requires, and therefore

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<sup>170</sup> I am aware that the development-takes-time premise is actually a universal truth, in that processes and transitions do take time, which is why the length of time it takes an external entity to see appropriate results from a development program is essentially irrelevant. The issue is economic sovereignty and right of a nation’s people to select and execute their chosen development trajectory without what amounts to punitive damage from the international community for non-compliance in general, and in what they would consider to be an appropriate time frame. (McNeish and Logan, 2012 refer to resource sovereignty in a very similar way).

assumes, the integrity of leadership in its functionality where laissez-faire development assumes people are self-interested and that the market is thusly self-regulatory to the extent private interests. This is not to say that state-led development is not equally as subject to corruption, clearly it is. Matters are even more complicated by cases of structural subversion. When fractious political usurpation and coups predominate in an atmosphere of economic warfare and where the external shell of socialism stands to house the inherently self-interested laissez-faire policy.

In positing a ‘resource curse’ it follows that in this article the authors would seek insight as to whether “...specialization in natural resources is a viable strategy for successful economic development” (SW, 1999:44) but even more specifically, the authors ask “...whether natural resource booms are beneficial in the way that the big push reasoning would suggest—by providing the catalyst for low-income economies to overcome the fixed costs of industrialization” (SW, 1999:44). More to the point, in *Natural Resource Abundance and Economic Growth*, SW showed that the relationship was negative, therein asserting resource booms are actually not beneficial to growth despite what successful cases of resource-led development would indicate.

In this paper, directly taking on ‘big push’ as the last ideological frontier before a paradigmatic ascendancy, the authors question not whether booms are beneficial, since Peru, Mexico, Chile, Brazil, Columbia, Costa Rica, Venezuela, and Ecuador did very well with their booms post-independence (SW, 1999:44), but whether they induce growth over the long-term. The answer determines

whether the ‘resource curse’ can succeed the ‘big push’, truly marking a theoretical paradigm shift in development economics and further substantiating the reach of its political ideology. After all, it is growth *over the long-term* that lends viability to the strategy in creating successful economic development. Homing in on this condition of success, SW add that “...several recent case studies have documented the problems with natural resource-led-development in specific countries or groups of countries” (SW, 1999:44). The authors particularly reference the work of Auty (1990), and Gelb (1988) who looked at problems in Venezuela, and Ecuador and Venezuela, respectively<sup>171</sup>. Here it is a good idea to add and juxtapose SW’s comments from (SW, 1995b) where the authors claim that the “...negative assessment of resource-based development in due course led to a revisionist literature describing successful cases of staples-led growth”, which as was pointed out earlier would indicate that cases of successful staples-led growth (natural resource-based growth) while it has been known to happen and cases can be found in the literature, they are nevertheless illegitimate. Therefore while these Latin American cases of successful natural resource based growth form a formidable list of high-achieving bootstrappers, for SW, thus only proves to be an aberrant litany against the policy implications of the ‘resource curse’ diagnosis and therefore should be considered illegitimate, in the grand scheme of economic reform and the process of global integration.

While the Rosenstein-Rodan’s big push theory came about in 1943 and Prebisch/Singer’s declining term of trade came about in 1950, the former justified the policy implications of the latter, while the latter exemplified, in part, the

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<sup>171</sup> Auty (1993) has also assessed both Chile and Peru.

consequences of being structurally underprepared for network failure, see (SW, 1995a:14) on “export pessimism” and the Nash equilibrium (SW, 1995a:14-footnote 24). So that the deceleration and de-legitimation of the big push theory would affect the persistent currency of the Prebisch-Singer thesis, though not so much that a direct attack was less necessary. Such is suggested when SW, in the context of questioning “...whether specialization in natural resources is a viable strategy for successful economic development” (SW, 1999:44), note that there is “...recent cross-country evidence of an inverse association between natural resource intensity and per capita growth between 1970 and 1990” referring to *Natural Resource Abundance and Economic Growth (1997a)* and *Sources of Slow Growth in Africa (1997b)*. The authors suggest that this research could be complementarily extended by “...time series evidence to study the impact of commodity booms on long term growth” (SW, 1999:44). Further SW underscore the potential import that such evidence would have cooperatively in that “...it is an open question whether the observed negative association between growth and natural resource abundance is due to the fact that natural resource abundant countries are more likely to experience booms, busts and the accompanying uncertainty, or whether something else about resource abundance causes slower growth over the long term” (SW, 1999:44), referring to the Prebisch-Singer debate whereby terms of trade are not the problem rather the notorious, and granted volatility of the extractive sector is the source of slow growth. It is important to understand that the volatility perspective is an argument for which solutions are mitigation-based as opposed to the solution to a decline in terms of

trade for which solutions are reconstructionist such that SW are positing a measure aimed at the root of a systemically noxious idea.

In returning to the suggestion of big push reasoning, SW explain that in “...big-push logic, anything that stimulates demand will do, whether a large public spending program, foreign aid, discovery of minerals, or a rise in the world price of natural resource” (SW, 1999:43), suggesting, then, that natural resource abundance should be sufficient to transition a low-income economy to a higher income economy via industrialization. Though, since it is external economies of scale which Rosenstein-Rodan posited as the vehicles of growth over the long-run, more pointed questions might be: Is specialization in natural resources a viable strategy in creating external economies as Rosenstein-Rodan outlined? Will natural resource abundance sufficiently create economies of scale as Rosenstein-Rodan outlined? Additionally, the demarcation between specialization and diversification while generally rigid, depends on the industry, social overhead capital capacity of the host country and the agent relationships. So that with regard to an extraction-based economy, specializing in natural resources does not require re-capitalizing the rents to create endogenous industries from which external economies are derived, such a country could simply become a petro-state. Yet without diversification, a coordinated national economy based on the creation and interaction of external economies are highly unlikely. Ultimately, the larger the extractive sector is in proportion to the total economy, without active investment in sectoral diversification, the less likely diversification will ensue as rent utilities develop and become entrenched. This can lead to rent-seeking as



recipient groups, be they social services or corruptible patrons, come to budget around the income. It is clear then that prior to investment in natural resources, social overhead capital must be established, just as Rosenstein-Rodan hypothesized, in order to channel the rents into directly productive investments thusly recapitalizing the rents into the initiating of external economies therein developing a diversified national economy.

It does follow that a large bureaucracy would develop as the social overhead capital would need to be managed, but ideally this also means employment in a co-op like fashion, where people are invested not just in their jobs but in their country's well-being; and this naturally has clear implications for environmental stewardship if the people are so inclined, most transitioning from agricultural societies are so inclined. But largely because it is asserted that private enterprise can employ people, the neo-liberal aversion to large government is said to be incompatible with socialist policy environments. Still, private enterprise divested of the interest of the nation's popular masses, having only been invested by those who have the access and means to literally to have invested significantly into the enterprise, will prioritize entrepreneurial sovereignty not necessarily keeping in mind national sovereignty. Yet one can observe how very similar these diametrically opposed circumstances are in that both scenarios are interested in taking care of *their* people. One can also observe, without getting into types of power, the scalar cross-linked pattern in the possession of power such that minority hold the bulk of the power within what still remains a general minority of stockholders, in the case of entrepreneurial sovereignty, while a majority of

people hold the majority of the power amid socialist national sovereignty, and still a minority of the international community holds the majority of the power, the international majority holds a majority of the remaining global resource wealth but a minority of the power. Effectively, stealing resources from leaders without both integrity and systemic understanding, as opposed to simply systematic understanding, is little more than taking candy from a baby. In highly corrupt settings the people are considered only to the extent that they are highly malleable (due to under-education, under participation in local and national politics, institutional lethargy, or hyper-consumerism) and are otherwise disposable factors. Notice the United States, China, and many African nations are a similar in its treatment of its masses versus its elites. The ‘resource curse’ is an excellent example of how power shifts based on governing structures, take for instance the development of Latin America.

There are historic examples<sup>172</sup> of recapitalization and economic diversification having “...had a positive effect on long-run development” (SW, 1999:44) such as the Caribbean and Latin American resource booms of the 1800s where “...Cuba became the first country in the region to construct a railway in 1838 after its sugar boom [...] and the Guano boom in Peru led to the establishment of banks for the first time in the 1860s” (SW, 1999:45)<sup>173</sup>.

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<sup>172</sup> From authors see: Bulmer-Thomas, V. on Cuba in “The Economic History of Latin America since Independence”. *Cambridge Latin American Studies*, 77, Cambridge University Press, New York. (1994:35); and Randall, L. on Peru in “A comparative economic history of Latin America: 1500–1914”. *Monograph publishing on demand: sponsor series*. University Microfilms International, Ann Arbor, MI. (1997:110).

<sup>173</sup> See: Tilton (2012) “The Terms of Trade Debate and the Product Policy Implications for Primary Producers” Working Paper 2012-11, <http://econbus.mines.edu/working-papers/wp201211.pdf>, Accessed 13 November 2013.

Here it is important to note that an economic management strategy can, and often should be seen, especially in historic contexts, as separate from the form of government since autarkic governments can be export-centric and democratic governments can approach self-sufficiency. For instance, consider that Cuba was still the colonial wealth of Spain during its sugar boom in the 18<sup>th</sup> and 19<sup>th</sup> centuries, and when its 1838 railway was constructed "...with foreign finance" (SW, 1995a:7), conversely Peru was already independent (1821) by the time of its Guano Boom (1840s-1880s). When decoupled one can see clearly that the form of government matters less in economic warfare, than the economic management strategy, so that the benefits of preventing some countries from executing certain management pathways while prescribing another as the superior alternative is par for the course. Two points on self-sufficiency and form of government, self-sufficiency or protectionism is historically the superior management strategy for establishing a national economy, especially when resource wealth is endogenous; once it can be established and allowed to thrive, that is there are no punitive actions taken from the larger international community, *then* government matters because integrity and checks are required for this management strategy as discussed previously. One point on free-trade, because as big push suggests, social overhead capital, endogenous industries, and external economies must be first established to take full advantage of international trade for the benefit of individual nations such that only *after* self-sufficiency has been met is free-trade then the higher order evolution in global economic management. Pre-mature involvement in free-trade is highly damaging to developing national economies,

where instead of healthy symbiosis the global economy is marked by parasitism which in fact is backward.

To this end, "...the development strategy led by natural resource exports was not seriously questioned in Latin America in the nineteenth century", since at the time Great Britain was the economic hegemon and its industrial strength was in manufactures, not raw materials exports. Still, "...it has come under increasing challenge in this century" (SW, 1999:45) Because the U.S. industrial strength is in command of the complete value chain, from raw materials via a technological advantage to finished goods. The issues of global resource scarcity, problematic reserve distribution, the rise of counter-intellectual thought and shifting hegemonic powers are in addition to this.

As SW explain, "...[t]o be sure, an important impetus for this challenge was the interwar experience with declining commodity prices, and the early postwar view associated with Singer (1950) and Prebisch (1950) that commodity prices were on a secular decline" (SW, 1999:45). Referring especially to the intellectual inertia of the Prebisch-Singer thesis SW add, "...the critique runs deeper than this, and has persisted even after the evidence has overturned the view that commodity prices were on the secular decline" (SW, 1999:45).

Today it appears to be the trend that neo-liberal economists, even if begrudgingly, concede the secular decline assertion though decoupling it from its policy implication, arguing that despite the concession, the policy implication that resources are bad for development is nevertheless incorrect. Despite the early history of natural resource-driven success, SW adds "...[y]et, the record is far

from the unmitigated success that one might expect from a naïve application of the big push reasoning” (SW, 1999:45), after all a “...leading text on the economic history of Latin America concludes that overall, the experience with primary-export-led development has been a failure” (Bulmer-Thomas, 1994, p.344), irrespective of the fact that “...a definitive answer to the question of whether booms invariably bring on slow growth awaits more data” (SW, 1999:45).

Nonetheless, since the idea that natural resource-led development has failed overall, and said has become a patently distributable fact, it is expected that a crop of attendant research would be raised; as is the case when theory is based on theory or existing theories get a fresh infusion of interest or perspective such as when “..the evidence is nevertheless sufficiently suggestive enough to raise the possibility that resource booms can result in slower growth” (SW, 1999:45).

Essentially the authors explain that the very idea, of a shadow, of a doubtless possibility, that maybe the ‘resource curse’ is founded on the basis of even a sufficient truth provides enough “...motivation, [for] the rest of the paper [to] present a model to better understand the role of a big push in a natural resource intensive economy, and the conditions under which growth may actually be depressed as a result of the natural resource boom” (SW, 1999:45). So warranted, the authors present “...evidence from seven Latin American countries that natural resource booms are sometimes accompanied by declining per-capita GDP” (SW, 1999:43) in the framework of a “...model with natural resources,

increasing returns in the spirit of big push models, and expectations to clarify some of the reasons this may happen” (SW, 1999:43).

SW explain that researchers already understood why “...GDP in booming economies ends up lower than it might have been with better linkages or more investment” (SW, 1999:45) but they did not understand, indeed no one had yet explained, “...an actual decline or fall in the growth rate after the boom has run its course” (SW, 1999:45). Since “...the disappointing performance of resource booms” (SW, 1999:45), being post-boom growth reductions, could not be addressed by “...poor forward and backward linkages” or the authors own observation that “...revenues are consumed rather than invested” (SW, 1999:45), the authors expressed that “...something more pernicious must be going on to account for slower growth” (SW, 1999:46).

It should be noted that a potential way in which growth may actually be depressed as a result of the natural resource boom is if growth can be said to characterize an increasing capacity to produce. For instance, in a resource-based economy, if resource booms are associated with an increase in aggregate GDP, if accounting for what appears to be typical malfeasance and extraversion, an increase in aggregate GDP can become a declining per capita GDP. Since declining GDP per capita can be seen as a smaller proportion of aggregate GDP to be distributed, this decline would likely be proportionate with the residence time of corruption, reflecting facilitated graft.

In another channel, not so much associated with corruption, assume a resource-intensive economy striving for recapitalization of rents toward social overhead capital toward to promote endogenous industry; minimal corruption is assumed and growth is still characterized as an increasing capacity to produce. Here the bump in aggregate GDP would indicate that the resource boom outpaced cottage manufactures in influencing growth, which is reasonable because cottage goods are hardly comparable with strategic fuels and minerals in terms of income. So that effectively when a resource boom hits all, other products are macro-economically irrelevant. The rate at which the extractive hits the market and its value is returned outpaces goods produced in cottage industries so that if per capita GDP can be said to represent the rate of production per person in society, then even with a cottage sector, it would make sense that a boom is associated with a low per-capita GDP since the extractive economy is known to be enclave, hiring few nationals, such that the rate of production per person in an extractive economy could only be low.

On another note as it is a common suggestion in the general literature, and SW have suggested this to be the case as well, resource wealth leads to laziness. That the production of a society decreases (low per-capita GDP) as described above with the onset of a resource boom would seem to suggest laziness except when the boom is considered in an economy dominated by the extractive sector, in which as described above, production per person could only be low. In many African cases, where post independence was much later than in Latin America and there appears of have been significantly less knowledge-sharing, omitting

imperial inertia and the role of underdevelopment in shaping modern initial conditions surely would obfuscate these perspectives.

Though the authors do "...focus on the economic effects of resource booms on growth" (SW, 1999:45), very little of it is in regards to the disappointing post-boom behavior to the extent that all they did was select "...five country-episodes from recent Latin-American history where we have both an identifiable natural resource boom as well as time series data on GDP" (SW, 1999:46), observed these cases and followed with some modest generalizations. Here their efforts on explaining why, counter to big push, resource booms have been followed by decreasing growth is effectively a red-herring. Assessing natural resource booms for big push effects is necessarily to assume endogenous external economies, and it is well known that the extractive sector is an enclave, even Davis and Tilton proclaim, in a "... more direct challenge to the enclave argument, suggested by some, is that it is irrelevant" (Davis and Tilton, 2005:239), so that the major precondition for big push-based development was inherently missing. There are limited, if any, external economies in developing 'host' countries for extractives<sup>174</sup>. In fact, an evocative exemplar of the neo-liberal view, in general, is given by Davis and Tilton who state,

"...Indeed, host government efforts  
to replace expatriate employees with

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<sup>174</sup> Davis, Graham and John Tilton. "The Resource Curse". *Natural Resources Forum* 29. (2005) 233-242.



nationals, to promote downstream processing, and to require mining firms to acquire supplies from domestic firms can be counterproductive if these efforts raise the costs of mining and so reduce the monetary rents flowing to the host country. In such situations, the government is in effect subsidizing these linkage activities simply because they are associated with the mining industry. While a desire to create domestic employment may be commendable, there are far more labour-intensive industries than mining or mineral processing. Moreover, economic development requires the creation of wealth. Subsidizing industries that would otherwise lose money destroys wealth.”

*The Resource Curse*

Davis and Tilton, (2005:239).

It should be said that the enclave argument, as it relates to underdevelopment, would not hold for national economies of scale since the resulting external economies would in fact reverberate throughout the national economy but if the national economy were under attack by the international community and eventually privatized by such then the relevance of the enclave argument is restored. The 1970s and 1980s, the time frame from which the authors draw their data, were periods of intensive economic warfare in Latin America as the shock doctrine treatment was increasingly unleashed.

Recall that in *Economic Reform*, to evince the effect of timing on liberalization, SW zeroed out growth in the recent past with growth in the recent future so as to draw a sharp contrast between the distant past and the distant future

analogous to policy outcomes associated with free-trade versus national self-sufficiency. Effectually, the same maneuver is done in this paper such that the model building of the timing effects of natural resource booms on the process of industrialization takes precedence, as the rest of the paper is comparatively 'zeroed-out'. Thus on the whole, (SW, 1999) is dedicated to their model of the process of resource-based industrialization with timing effects.

But how does a resource boom induced declining per-capita GDP relate to the process of industrialization? In what environments would industrialization be stimulated, in what environment would it be frustrated by resource booms, and in what environment would a resource boom reverse the process of industrialization? Consisting of three primary phases the process of industrialization includes: division of labor, factorization (accreting specialized labor in a factory), and mechanization (machines assisting labor). Just as industrialization is the socio-economic dominance of industry, globalization is the dominance of industry and its capitalization over the world's capital resources (human and physical), therefore the process of globalization is the process of industrialization where the world's labor is divided, factorized, and mechanized. Resource booms then frustrate this process of globalization in that it provides the impetus for economic independence, leverage for terms bargaining, and otherwise, from the perspective of a uniform global system, funds anarchy operationalized as autarky.

In forwarding what can now be understood as Sachs and Warner's development of the resource curse, one can grasp the underlying assertion, operating through the frustration, or at worse the reversal, of industrialization, that

resources concentrated in the wrong global sector can lead to irrational ‘waste’, the gravest of inefficiencies, requiring intervention for the resource security of the global system, or as Sachs and Warner put it, the “...one dominant global economic system” (SW, 1995a:1) in painstaking re-emergence since 1995.

One can now observe clearly the intention of economic reform in the “...institutional harmonization and economic integration among nations” (SW, 1995a:1) is to check systemic anarchy operating through unsanctioned economic sovereignty. The systematic analysis of the ‘resource curse’ in its systemic context is the scope outlined in this evaluation of the Sachs-Warner series. Beginning with the lock, *Economic Reform and the Process of Global Integration (1995a)*, *Natural Resource Abundance and Economic Growth (1995b/1997)* is the keyway, and *The Big Push, Natural Resource Booms and Growth (1999)* is the key, such that the *Curse of Natural Resources (2001)* appreciates a newly minted intellectual apparatus justifying a full institutional assembly in the charge of the global security of primary products, strategic resources, the internal system of production, and the larger industrial order. The key purpose is the academic-intellectual justification of double standardization with regard to resource-led development pathways, such that the ‘resource curse’ is a systematic construction of a global double standard for systemic gain to the benefit of the current hegemonic administration and its patrons.

The authors used this paper to formally “clarify” some of the systemic problems induced by the double-edge of natural resource booms which can either stimulate an incentive to industrialize or “...frustrate and even reverse

industrialization that is in mid-stream” (SW, 1999:46). In an environment where entrepreneurs are willing to invest in establishing an industrial scale firm if other entrepreneurs are also willing to create industrial scale firms and incentive to industrialize will be stimulated to the presumable end that economies of scale are multiplied, therein lending the spirit of big push, but additionally the risk-load is shared and inter-trade networks are created strongly. Though left unaddressed by the theory of big push, is SW’s finding that natural resource booms can “...frustrate and even reverse industrialization that is in mid-stream” (SW, 1999:46)<sup>175</sup> such that the “...timing of the natural resource boom matters, and so does the sectoral distribution of the increasing returns and whether the booms stimulates the right sectors” (SW, 1999:46).

In other words, the authors assert that resource booms can cause the de-industrialization of an economy via the Dutch disease, more broadly (and of considerably greater systemic consequence), Sachs and Warner assert that resource booms in the wrong global sectors, coupled with industrial capacity building in those sectors as is required by Rosenstein-Rodan’s big push prescription, can consequentially cause the de-industrialization of the global

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<sup>175</sup> The petroleum and, in general, fossil-fuel industry is usually divided into three major components: Upstream, midstream and downstream, though midstream operations are usually included in the downstream category. 1. The upstream oil sector is a term commonly used to refer to the searching for and the recovery and production of crude oil and natural gas. The upstream oil sector is also known as the exploration and production (E&P) sector. The upstream sector includes the searching for potential underground or underwater oil and gas fields, drilling of exploratory wells, and subsequently operating the wells that recover and bring the crude oil and/or raw natural gas to the surface. 2. The midstream industry processes, stores, markets and transports commodities such as crude oil, natural gas, natural gas liquids (LNGs, mainly ethane, propane and butane) and sulphur. 3. The downstream oil sector is a term commonly used to refer to the refining of crude oil, and the selling and distribution of natural gas and products derived from crude oil. Such products include liquified petroleum gas (LPG), gasoline or petrol, jet fuel, diesel oil, other fuel oils, asphalt and petroleum coke. The downstream sector includes oil refineries, petrochemical plants, petroleum product distribution, retail outlets and natural gas distribution companies. The downstream industry touches consumers through thousands of products such as petrol, diesel, jet fuel, heating oil, asphalt, lubricants, synthetic rubber, plastics, fertilizers, antifreeze, pesticides, pharmaceuticals, natural gas and propane. (source: wikipedia) <http://www.oilandgasiq.com/questions/what-is-upstream-and-downstream-in-oil-gas-describ/>. Accessed 13 November 2013.

economy's current industrial centers, such that it is imperative that the resources be removed as quickly as possible from their host locations to the industrial centers of the global north in order to prevent an economic regime shift. To this end the authors explain that "[t]he core of the Dutch disease story is that resource abundance in general or resource booms in particular shift resources away from other sectors of the economy that have positive externalities for growth" (SW, 1999:48), where 'positive externalities for growth' infer the capacity to utilize the boom for increased growth (which is beyond big push as these countries are already industrially established).

The linking factor between the two major papers in this set, *Economic Reform* and *Big Push*, is the role of timing; timing of liberalization and level of commitment to it, and timing of a resource boom on the process of industrialization. Very interestingly the distribution of increasing returns, and whether the booms stimulate the right sectors could only be a foundational concern considering the systemic consequences of resource booms. Thus reasonably, the next questions are: What are the right sectors? How should increasing returns be distributed?

Taking into account peripheralization in the world-economy, the classical assumption that the market regulates value through prices such that prices indicate value or worth, and Rosenstein-Rodan's functionality of external economies and increasing returns to scale, then it would be expected that midstream and downstream sectors should be stimulated to increase external economies and that those economies would direct increasing returns to scale to those sectors as

internalized value addition; and that this would only frustrate development efforts in developing countries, who might then resist industrialization concurrently frustrating globalization overall. Thus the right sectors are those promoting value addition to the global economy, increasing returns should be distributed accordingly, and it is imperative that insurgencies are managed in service of globalization not in rise against it.

Therefore with regard to Sachs and Warner's observations of the "...five country-episodes from recent Latin American history" (SW, 1999:45), the authors make the tentatively emergent conclusion that "...there doesn't seem to be a single case where GDP growth was obviously faster after the boom was finished than before the boom started, as the big push would suggest" (SW, 1999:45). Further, SW assert that "...[i]f anything, GDP growth seems to be slower in several cases after the boom period" (SW, 1999:45). But just as the statistical construction of *Economic Reform* had its problems, *The Big Push* is not immune as the overall intentional methodology is consistent between the two papers. Thusly Sachs and Warner add, "...[n]aturally, there are issues about whether these conclusions would remain after controlling for other factors affecting growth, which we discuss, but the simple evidence is far from supportive of the idea that booms should serve as catalysts or development" (SW, 1999:45).

### **Crafting the Case:**

#### **Cross-country Results and the Latin American Pattern**

This case is framed first by "...recent findings from cross-country research" (SW, 1999:46), for which Sachs and Warner's own seminal work is central, juxtaposed with evidence on recent natural resource booms in Latin America (SW, 1999:50).

On this foundation, the authors then “...consider an economy in which there are increasing returns to scale in one of the sectors, so that a big push is potentially beneficial, and which is also capable of international trade and natural resource production” (SW, 1999:52). This clause is crucial, as many of the most resource abundant countries, such as in sub-Saharan Africa, lack the Rosenstein-Rodan floor of social overhead capital, and thus can only host extraction but are otherwise unable to *competitively* and *beneficially* engage international trade.

From this standpoint, the genius of Sachs and Warner is that they reinforce the obfuscation of the institutional perspective, that it would be imprudent and non-beneficial, for such nations to attempt what has been historically, a highly successful development pathway precisely because it would be to their competitive advantage. Davis and Tilton exemplify this point in stating,

“...More developing countries, it is true, would probably enjoy a comparative advantage in downstream processing if the developed countries did not impose a structure of tariffs and other barriers to mineral trade that discriminates against the more processed mineral commodities. So changes in the trade policies of the importing countries could help mineral-producing developing countries (and consumers in the importing countries as well). But this does not change the fact that, as long as the current structure is in place, subsidizing unprofitable industries reduces the wealth of the developing country. This is true even when the industries receiving subsidies would not need them in the absence of discriminatory trade policies.”

*The Resource Curse*

Davis and Tilton, (2005:239).

Essentially, the authors imply the relevance of extraordinarily resource wealthy SSA if these countries were to industrialize, while explicitly excluding these countries from the immediate results of the model because most were not yet industrialized. To do this the authors refer to the inclusivity of evidence from *Sources of Slow Growth in Africa (1997)* so that the results of their model could consider the relevance of the generalized sub-Saharan African (SSA) while the authors use the model's parameters to imply an exclusion of much of sub-Saharan Africa (SSA) from the model's implications though still relaying the potential of the SSA resource wealth condition to the global structure. In this way, the implication of the double standard of the resource curse was, by virtue of rhetoric, integrated into the influence of the model.

This section reviews the authors' presentation of the cross-country research, the report of resource booms in Latin America and the juxtaposition of the two segments through its relation to *Economic Reform and the Process of Global Integration (1995a)* followed by an analysis of the presented model.

### **Recent Cross-country Finding**

Beginning with the evidence presented in *Natural Resource Abundance and Economic Growth (1995b)*, along with the "additional and updated results" from the 1997 revision, and the evidence presented in the authors' 1997 article, *Sources of Slow Growth in Africa*<sup>176</sup>, as well as the early work of both Gelb (1988) and Auty (1990) which documented "...many of the development problems of natural

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<sup>176</sup> *Journal of African Economics*. 6 (3), 335-380.



resource-intensive economies, without however, showing the inverse association on the basis of a cross-country study” (SW, 1999:46), the authors reiterate the value of the cross-country regressions representation of “...the negative association between resource abundance and growth, even after controlling for a number of additional variables” (SW, 1999:46).

In a tabulation of four regressions, these previously established foundational regressions, and their implications as covered up to this point in the current thesis, are summed up in this paper’s regression 1, whereby the authors effected a reduction of “...per-capita GDP by about 7%” (SW, 1999:46) by taking the mean of the annual average growth of all the countries referred to in the relevant data sets for the previous papers, then distributing the mean over the 20-year period. Regression 2 is the Latin American dummy-adjusted<sup>177</sup> regression 1, demonstrating that the “...eleven countries in this paper are not, on average, unusual in their growth experience” (SW, 1999:46). The third regression replaces “...the natural resource export variable, which includes exports of primary agriculture and basic metals and minerals, with an alternative measure of natural resource exports that includes only basic metals and minerals” (SW, 1999:46) to show that the alternative variable “...is also negatively associated with growth, with a slightly higher estimated coefficient (higher in absolute value) (SW, 1999:46-authors’ parentheses). The authors explain that this particular alternative variable is to be used in the measurement of “...natural resource booms over time” (SW, 1999:46). Finally, in the fourth regression the authors use the “

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<sup>177</sup> Beginning with regression 2, see table 1 on page 47. The eleven countries evaluated are: Argentina, Bolivia, Brazil, Chile, Columbia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela.

standard deviation over the 20-year period (1970-1990)” (SW, 1999:48) to “...show that the negative association between natural resource exports and growth is unaffected by the inclusion of a variable to measure volatility in natural resource prices” (SW, 1999:47), such that the notorious volatility of the business cycle for extractives is discounted as is “...each countries [sic.] external terms of trade” (SW, 1999:48).

It should be noted that even when discounted, unequal terms of trade, as represented by the volatility variable, “...is itself weakly, negatively, associated with growth” (SW, 1999:48) such that Sachs and Warner’s own assertion that “...the evidence overturned the view that commodity prices were on a secular decline” (SW, 1999:45), itself strongly hinges on the evocation of ‘secular decline’ to further discount the absolute realization of unequal trading relations. The strength despite discounting can also be said to indicate stability of Prebisch and Singers assertion of a secular decline in the terms of trade, regardless of Sachs and Warner’s conveyed sentiment of the theory’s obnoxious persistence (SW, 1999:45). In fact, today it appears to be the trend that neo-liberal economists, even if begrudgingly, concede the secular decline assertion though decoupling it from its policy implication, arguing that despite the concession, the policy implication that resources are bad for development is nevertheless incorrect<sup>178</sup> (Marnia, 2013).

Additionally, an important function of this thesis to draw forth the authors’

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<sup>178</sup> See: Tilton (2012) “The Terms of Trade Debate and the Product Policy Implications for Primary Producers” Working Paper 2012-11, <http://econbus.mines.edu/working-papers/wp201211.pdf>, Accessed 13 November 2013.

ideological leanings in that while the authors explain the ‘resource curse’ in terms of a “...dynamic Dutch disease model” (SW, 1999:48), citing their foundational work (1995b), they nevertheless “...remain open to other explanations (Sachs and Warner, 1995)” (SW, 1999:48), presumably those included in this article beginning with a behavioral explanation (sloth), followed by the political economic theory of extreme rent-seeking, corruption, and inefficient bureaucracies (a somewhat more refined assertion of sloth), assertions of declining terms of trade, and absent forward and backward linkages. Such that the authors’ add, “other possible explanations focus on the effects of natural resource abundance on human or physical capital accumulation, corruption and institutional quality, or endogenous policy choices” (SW, 1999:48), where the latter includes the sovereign decision to nationalize for self-sufficiency.

Returning to the four regressions, the authors’ associate the above-mentioned explanations supportively with the cross-country evidence. They generalize, for example, that “...there is no robust association between natural resource abundance and any of the following: national saving, national investment or rates of human capital accumulation, at least when the latter is measured in terms of average years of schooling” (SW, 1999:48), such as to suggest that social welfare is not improved by natural resource abundance; aligning with corruption. The authors also explain that “[t]here is an inverse association between natural resource abundance and several measures of institutional quality” (SW, 1999:48), suggesting that natural resource abundance does weaken institutional integrity and governance capacity; aligning with sloth. Here the authors deflect to Knack and

Keefe and express a professional uncertainty to soften the implication of the conclusion and the authors own alignment with it, writing, “[t]his result is based on the institutional quality measures in (Knack and Keefer, 1994), and is presented in (Sachs and Warner, 1997a,b, Table 11). However, since the alternative institutional quality measures are themselves highly positively correlated across countries, the data do not allow us to be very precise about exactly which aspects of institutional quality are related to natural resource abundance, or in turn, exactly which are relevant for growth” (SW, 1999:48).

Relative to “...the eleven Latin American countries in this paper” (SW, 1999:49), the authors “...gauge the importance of natural resource abundance in accounting for slower growth” (SW, 1999:49), by multiplying “...the estimated regression coefficient by the natural resource intensity variable for each country” (SW, 1999:49). Since the estimated regression coefficient is representative of the negative association between natural resource intensity (share of exports of primary products over GNP) multiplied by resource intensity (natural resource exports over GDP), then the negative correlation is extrapolated exponentially for each country to give the regression estimates (all negative) of the natural resource effect for each of the eleven countries, the highest of which is Venezuela. The authors report a 77% decrease in growth “...due to natural resource intensity” (SW, 1999:49) in 1970. SW add that “taken literally, this implies that at the end of the 20-year period I 1990, Venezuelan per-capita GDP was about 14% lower than it would have been if Venezuelan [sic.] had no natural resources” (SW, 1999:49).

If economic growth is calculated from changes in the size of the overall

economy which, by Dutch disease rationale, is effected by the size of the export sector relative to the entire economy, then the larger the export sector (with its increased volatility) the more unstable the economy is due to low diversification. In this way resource abundance/intensity could be said contribute to the deceleration of the manufacturing sector (if comparatively present) by crowding it out. From the world-systems perspective, the an increasing number of countries utilizing their comparative advantage of primary production through the establishing of economies of scale and external economies would reduce the manufacturing capacity and market share of the current manufacturing centers whose productive progress is held by economic suppression of those with a natural comparative advantage. The authors elude to the dangers of suppressive easing to the extent that the authors report regression results of the association of natural resource abundance and sectoral data showing that "...countries [resource-rich] that followed open trading policies tended to have higher growth in manufacturing exports, and that, after controlling for this, resource-poor countries tended to have slower growth in manufacturing exports" (SW, 1999:48, data from SW, 1997a-Table 8), to the end that "[i]f exports of manufactures are an important engine of growth, and if the Dutch disease effects of natural resource abundance tends to squeeze this sector [of the world economy], then tis provides a channel for the negative association between natural resource abundance and growth" (SW, 1999:49). Therefore a reversal, whereby Dutch disease affects Latin America instead, or similarly conditioned developing states, is not only systemically preferred but can be explained, in part, by institutional (systemic)

induction.

To the end of showing the results of suppression the authors offer “...supportive evidence that natural resource abundant countries tended to have a larger service sectors and smaller manufacturing sectors than resource-poor economies Sachs and Warner, 1997a,b, Table 8)” (SW, 1999:48). By drawing an association between natural resource abundance and sectoral data the authors were able to show that the ratio of services to manufactures output in 1970 shows the positive correlation (6.54) between resource abundance and the output of the service sector relative to manufacturing. Meaning that government spending (the service sector) increased proportional to resource abundance “to the extent that the service sector proxies the non-traded sector and manufactures the non-resource traded sector” (SW, 1997a: Table 8), where the non-resource sector includes “...output of transport, storage and communications, wholesale and retail trade, banking, insurance, real estate, services, public administration and defense, and manufacturing” (SW, 1997a: Table 8)<sup>179</sup>, where non-resource traded sector and non-resource sector are analogous. The second regression shows the growth of services and manufactures output for the period 1970-1990 where over twenty years the combined output of the services and manufactures sector was decimated by negative growth represented by regression coefficient -5.92 as a result of the

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<sup>179</sup> The authors note that the construction, and electricity, gas, and water sectors are missing. This is possibly because such operations are related to the upstream functions of exploration and production (E&P) and the point is to show that the service sector is squeezed by the expansion of E&P, the size of which relates to abundance and resource intensity, so that if resource abundance is high, there will be an intense expansion of E&P, which, if nationalized or is state-led to begin with, “...can also frustrate and even reverse industrialization that is in mid-stream” (SW, 1999:46), where the midstream industry processes, stores, markets and transports commodities such as crude oil, natural gas, natural gas liquids (LNGs, mainly ethane, propane and butane) and sulphur.

decrease in the export share of manufactures, -.46, over the period 1970-1989.

Recall that in resource-led development environments the government employs many workers in the administration and production of social overhead capital, which if funded by natural resources would anticipate a large government relative to its funding source (natural resource abundance). If this funding source were privatized, along the lines of economic reform, workers would be fired, government would shrink and the endogenous mid-stream and down-stream firms would atrophy to give regression 8.1 showing that "...natural resource abundant countries had slower growth in their share of manufacturing exports, holding constant the initial share" (SW, 1997a: Table 8), such that over nineteen years of economic warfare the endogenous manufactures sectors of Latin American countries had been damaged by a 46% decrease in productivity.

The authors claim that these regression results supports their preliminary evidence that, "...over the period 1970–1990, natural resource abundance and trade openness were related in a u-shaped pattern. That is, at low levels of resource abundance, more resource abundant countries were more likely to be protectionist (Taiwan is more open than Venezuela for example), but at higher levels of resource abundance, more resource abundant economies were more likely to be open (Venezuela is less open than Saudi Arabia for example)" (SW, 1999:48). This aligns with Sachs and Warner's previous assertion in *Economic Reform (1995a)* in that the East Asian success were due to an absence of abundant natural resources, a condition which lent itself to the openness of these countries to market idealism and an inability to compete in the highly lucrative mid- and

down-stream chains of natural resource production. Here it is important to note that the, Middle Eastern peninsula, in the strict sense, had a very different development trajectory than the Latin America in that the ruling families had always, as more commonly reported, been in support of resource-led development and thusly free-trade as a vehicle for such development; similar to Botswana, where the ruling families inherently appreciated the protections of private property and this pre-industrial cultural bias, in part, lent itself to visionary long-term planning.

### **Natural Resource Booms in Latin America**

Having described the theorized behavior and effect of natural resource booms on industrial sectors the authors move on to a discussion of the case specific boom results relative to a sub-set of Latin American countries. Among the eleven subjects, the categorical experiences of the countries reflect those that have had a boom, "...clearly identifiable" (SW, 1999:51), those that have not had a boom, "...no significant boom" (SW, 1999:51), and those for which the evidence of a boom is somehow inconclusive or is "...less clearly identifiable" (SW, 1999:51); where a natural resource boom is defined as "...a rise in the realized natural resource exports to GDP of at least 4% of GDP, from beginning to the peak of the boom, with a duration of at least three years" (SW, 1999:50). In determining that "...both price and quantity movements are relevant for measuring natural resource booms" (SW, 1999:50), and to adjust for Ecuador and Mexico, "...since discoveries of new oil deposits were important in both country's natural resource



booms” (SW, 1999:50), the authors excluded “...evidence on the external terms of trade for each country” (SW, 1999:50) as it “...soon became clear that the terms of trade evidence was potentially misleading” since it “...measured only price movements” (SW, 1999:50).

According to the authors’ classification there was a significant natural resource boom in Bolivia, Ecuador, Mexico, and Venezuela; while there was mixed evidence of a boom in Chile, Columbia and Peru; and there was no boom in Argentina, Brazil, Paraguay and Uruguay; where the assessment was garnered by looking “...at time-series evidence on realized exports of natural resources divided by GDP for each of these countries” (SW, 1999:50). The authors explain their rationale in writing, “...what we try to do in dating the boom is to identify the year just before the ratio of primary exports to GDP rose significantly and also identify the year when the primary export ratio was approximately back to its pre-boom level” (SW, 1999:51).

Taking in turn the clear boomers and the inconclusive boomers, SW explain that out of the four countries that experienced booms only Ecuador “...was the level of GDP significantly higher after the boom ended” (SW, 1999:51), while the following three countries “...exhibited an initial rise and then a collapse in GDP during the boom period” (SW, 1999:51), Mexico’s level of GDP after the boom remained stable, qualified as “...about the same” (SW, 1999:51), and the level of GDP after the boom in Bolivia and Venezuela “...was actually much lower” (SW, 1999:51).

The case that best represents the authors assertion that natural resources

are bad for development is that of Bolivia where, after the resource boom of 1985, the export ratio “declined precipitously so that by 1987 it was back below the 1973 value” (SW, 1999:51), where ‘precipitous drops’ are the calling card of shock therapy indicating an economic regime shift reform efforts, such as “...price devaluation, financial reform, pension reform, and privatization” (SW, 1999:51) were rolled out Chile, Bolivia, Venezuela, and Peru in the 1970s and 1980s. Additionally, the phrase ‘back below’ would indicate that the reduction was due to systematic control measures taken for institutional benefit, as would be expected by increased success of autochthonous country-level efforts at economic sovereignty.

Recall, in the analysis of *Economic Reform and the Process of Global Integration (1995a)*, that “...essentially, Sachs and Warner report that the economic growth of their sample of 36 developing nations was higher in the distant past during a period of poor economic policies than in the 1-3 year period after the reformation and establishment of good economic policies which led to, on average, an 88% decrease in growth, comparatively, during that period. In other words the authors make the statement that if one compared growth in the recent future with growth in the distant past, less an additional year, then compared growth in the distant future with growth in the distant past, the increase is even larger since growth is lower in the recent future by 88%, so that precipitous drops make a regime shift from the wrong kind of boom to the right kind of boom from socialist-based poverty reduction to capitalist-based wealth creation, where the costs of the wealth gained was the destruction of the wealth

accumulated under systemically-incompatible pretenses. For instance the case of Peru exemplifies this assertion in that “ after the boom per-capita GDP in Peru declined precipitously [such that] the boom period, and its aftermath seems to have reversed more than a decade of growth of positive growth between 1960 and 1974” (SW, 1999:52). Juxtapose this with Stanley Fischer’s statement in response to Sachs and Warner’s apparent bias “...against the import-substitution strategy”, where in he claims that, “[w]hatever happened later, Latin American and African countries did quite well in the 1950s and 1960s, despite their perverse regimes” (SW, 1995a:103). This is to reiterate that, broadly, timing is then an imperative factor which would make the costs of forced entry, however conceived and implemented, both reasonable to the goal-oriented and ultimately warranted. Thus operating through the channel of replicability, extracting value from the concept of trade liberalization is tangibly worth substantially more than the warrant and the transaction costs of forced entry. Further if new markets are unavailable because of trade closure policies than the concept of free trade would suddenly be highly and necessarily undervalued. One can see clearly that the costs of the wealth gained equate to the warrant and transaction costs of forced entry.

Of the four boom cases (Bolivia, Venezuela, Mexico), though “...somewhat less clear in the case of Ecuador” (SW, 1999:51), the authors claim “...it is not obvious in any of the countries that GDP growth was faster in the period after the boom than in the period before the boom” (SW, 1999:51). They add that, “This was clearly the case in Bolivia, Mexico, and Venezuela” (SW, 1999:51). As if reporting the success of shock therapy, the Sachs and Warner

expound that “Overall, there was no consistent pattern of a take off in GDP in these four cases, growth declines were not uncommon; and even the level of GDP was not invariably higher after the end of the boom” (SW, 1999:51); all good news from a systemic point of view. Thusly in summary, the authors “...see one case (Ecuador) where the boom may have had a positive, lasting effect on per-capita GDP, two cases (Chile and Columbia) where there was probably no major effect in either direction, and four cases (Bolivia, Mexico, Peru, Venezuela) where per capita GDP actually declined during and/or after the boom period” (SW, 1999:52). The authors depart this case analysis to develop an optimized economic framework in which these results could follow, to the extent that they are able to present “...a model to explain this diversity of experience with natural resource booms” (SW, 1999:52). In this thesis the model and results are summarized prior to a presentation of analytical commentary.

### **SW-Model of Natural Resource Booms and Industrialization**

In the context of the Set, SW support their assertion that natural resources have a negative impact on economic development the authors stylize a model to demonstrate how a natural resource boom can frustrate industrialization ongoing or act as the impetus behind the de-industrialization of an economy. The authors contrast two theoretical cases in which increasing returns to scale accrue to the non-tradable service sector in one case and to the tradable manufacturing sector in the other. The model is further parameterized such that the economy experiences a resource boom; produces two consumption goods, one produced with labor

alone and the other is produced with  $N$  intermediate goods and labor; the economy produces one natural resource that is not consumed domestically but is traded; and there are competitively monopolistic increasing returns to scale (IRS) and education is inherently restricted. The sectors of concern are the tradable manufactures sector and the non-tradable service sector. To the extent that there is no capital in their model, it is highly stylized to illustrate the point to be supported by the case analysis of the first section of (SW,1999).

Since the impact of resource booms on increasing returns, as a proxy for industrialization, are the subject of evaluation the authors begin by first characterizing the dimensions of a sector with competitively monopolistic increasing returns, irrespective of whether the IRS accrue to the tradable manufactures sector or the non-tradable service sector. Overall, the authors show that a 'big push' can be effectuated under limited conditions dependent upon whether the increasing returns sector is either traded or non-traded. The authors' modeling enables them to demonstrate that under certain circumstances a resource boom can be shown to promote de-industrialization rather than industrialization and can even be shown to frustrate industrial process in midstream. The authors dichotomize societal attitudes about the future into optimistic and pessimistic, then code the dichotomy as representing the investment mood based on "...expected growth or decline in the number of entrepreneurs establishing factories" (SW, 1999:56); in this way the authors enable their model with the capability for multiple equilibria with respect to the process of increasing returns, the number of factories expected to grow over time ( $n$ ), and the movement of

labor to and from the sector with IRS. Although there is no capital in this model that authors have managed to proxy entrepreneurial confidence, which can be represented by  $(n)$ .

While the authors are able to show that for a small, constant range of  $(n)$  both the pessimistic and optimistic equilibria exist, their major point is that industrialization and de-industrialization follows the contraction and expansion of the range of  $(n)$ , that is, the entrepreneurs' expectations for the number of factories to grow over time, plays a role in whether the sector industrializes or de-industrializes since IRS represents interdependencies which are weakened or reinforced by entrepreneurial confidence in sector-wide profitability. To this extent, and where the output of the IRS sector determines whether the sector is classified as tradable or non-tradable, industrialization ensues when the output of the IRS sector is service-oriented and conversely de-industrialization follows when the output of the IRS sector is manufactures-oriented (tradable).

### **Critical Commentary on (SW, 1999)**

Despite what some southern natural resource abundant countries would have been the case, systemically, the industrial position of these countries represent the constant-returns sector while the increasing returns sector represents the mid-and down-stream sectors dominated by the resource-poor global north. Recall that the point of national self-sufficiency, autarky, is to reverse these systemic conditions for the political end of economic sovereignty in service of social freedom among arbitrary global constraints and the material end of a higher standard of living for their people. Overall the authors' model represents both the sustainable

structural interest and a facet of a structural problem. Consider that to the extent that the non-traded sector has increasing returns to scale<sup>180</sup> and the traded sector, a proxy for the non-resource traded sector, has constant returns, these mid- and down-stream sectors are cooperative; and because systemically these sectors are geographically defined by and concentrated in the global north, this is a positive circumstance for established northern industrialists.

In regards to natural resource booms in the wrong sectors, the systemic problem is that a boom induces the upstream sector (geographically defined as the global south, where extraction occurs) to hyper-perform becoming thus institutionally competitive if these firms are not vertically integrated within northern firms, that is, if they are state-owned and operated. This means it is irrelevant who wields the tool of resource-led development; be it the global north in the 19<sup>th</sup> century, along with some members of Latin America; or the 20<sup>th</sup>-century, post-colonial first attempts of Africa or reemergence of Latin America and other members of the global south; the tool works. For this reason claims to the contrary must be seen as control-driven and ideologically justified; a justification that extends itself to the suppressive control of southern hyper-performance as required for continued domination.

Though I would question the functional distinction between measuring ‘only price movements’ and measuring ‘price and quantity movements’, since

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<sup>180</sup> In Table 8 of *Natural Resource Abundance and Economic Growth (1997<sub>R</sub>)*, where the non-traded sector is a proxy for the non-resource sector, also known as the service sector, constituting mid- and down-stream services such as “...output of transport, storage and communications, wholesale and retail trade, banking, insurance, real estate, services, *public administration and defense*, and manufacturing” (SW, 1997:Table 8- bold added by MM); and the non-resource traded sector is proxied by manufactures. Where petroleum product distribution is a down-stream function, manufactures is analogous to the non-resource traded sector, which when considering bid-trading, includes “...construction, electricity, gas and water” (SW, 1997:Table 8) or is otherwise a function of E&P (exploration and production).

price is said to allocate resources, unless, as Rosenstein-Rodan explained prices do not properly conduct allocation in the markets of underdeveloped countries, that is, "...the price mechanism does not necessarily put the economy on an optimum path" (Rosenstein-Rodan, 1961:3), especially so because "...markets in underdeveloped country are even more imperfect than in developed countries" (Rosenstein-Rodan, 1961:3). He further explains that the, "...[p]rice mechanism in such imperfect markets does not provide the signals which guide a perfectly competitive economy towards an optimum position" (Rosenstein-Rodan, 1961:3). In this regard, the difference between price *movements* and *price and quantity movements appears* to be as subtle as the difference between resource abundance (share of exports of primary products in GNP, SW1997) and resource intensity (natural resource exports/GNP, SW1999) where there are reflexive relationships between price movements and resource abundance as well as between price and quantity movements and resource intensity.

This is to say that the weight of external terms of trade for each country relative to the boom classification appears to be significantly at issue in whether a positive, lasting effect on per-capita GDP, which is responsive to accumulation and recapitalization, was in fact affected by declining terms of trade, such that of the eleven country subset the evidence substantiating a boom versus no boom is evenly split (4:4), though with the inclusion of the mixed evidence leaning more toward no boom, and the long-term effects of the clear booms are made questionable by SW, so that the majority of the sub-set reflects no boom.

The timing of a boom sets the period at which to assess the level of GDP



after a boom relative to before, as well as the lasting effects on long-run growth in GDP. The country classification of having experienced a boom indicates the country's qualification for an appreciable application of big push in the first place, such that SW's full definition of a natural resource boom can inherently limit an application of big push if it is difficult to classify the commencement and/or convocation of a boom. To this end, the authors explanation that that "...we want to separate the question of the direct effect of the booms on GDP growth from the question of whether the boom sets in motion forces which have a lasting effect on growth. We are interested in the second question, which requires a comparison of the path of GDP before the boom started, with the path of GDP after the boom has fully run its course" (SW, 1999:51).

Rather than directing, here, that a big push does not work, the authors indirectly suggest questionable development potential overall and more directly the authors definitively limit the theory's applicability. Despite this, the clearest alarm rings from the fact that, when one drops the 'spacer' countries being Argentina, Uruguay, Paraguay, and Brazil the N of the evaluated subset is reduced to a meaningful sub-set of eight countries such that Ecuador, Venezuela, Bolivia, Chile, and Peru, in other words, over 60% of the sub-sets semiotic value is derived of archetypal 'resource curse' cases as researched by Auty (1990- Venezuela, 1993-Bolivia, Chile, and Peru) and Gelb (1988- Ecuador and Venezuela). Further it is well known, that Jeffrey Sachs's career grew magnificently during Bolivia's own shock treatment with his attention to hyperinflation.

In re-telling the narrative of Sach's success, Klein referred to it as a story "...about a bold, boyish professor from Harvard who had, virtually, single-handedly "salvaged the inflation-wracked economy of Bolivia" according to Boston Magazine", (Klein, 2007:188). Termed "Bolivia's Miracle", Sachs gained "...immediate star status in powerful financial circles and launched his career as the leading expert on crisis-struck economies, sending him on to Argentina, Peru, Brazil, Ecuador, and Venezuela in the coming years" (Klein, 2007:188). She goes on that the praise heaped on Sachs "...was not just about beating inflation in a poor country. It was that he had achieved what so many had claimed was impossible: he had helped stage a radical neoliberal transformation within the confines of a democracy and without a war, a change far more sweeping than those attempted by either Thatcher or Reagan" (Klein, 2007:188-189).

Sachs and Warner's conception of natural resource booms and economic growth in relation to a big push approach to development is a bit of a stretch as it conflates two stages in the what has historically been the process of development overall, where some form of protectionism for competitive purposes is involved. Big Push assumed the industrializing benefits of economic autarky while SW disregarding capital, save labor, assumes an open industrial economy. It should be said that Sachs and Warner's relation to the big push could be construed as tangential since it is essentially limited to the inclusion of a wage premium to induce labor mobility from the cottage industry to factory production (1999:58). In this approach SW undermine the benefits of natural resource booms to catalyze industrialization by laying out a model economy that from the outset is open,

industrial, and capable of both international trade and natural resource production. In this way the ‘big push’, which was part of the intellectual justification for economic autarkic movements, along with the Prebisch-Singer thesis, is integrated into a largely incompatible model for the purpose of associating the concept of the ‘big push’ with a demonstration of industrial hyper-performance via Dutch Disease.

In the next and final paper of this set Sachs and Warner wrap-up their narrative on the ‘resource curse’, asserting that natural resource-led development is a failure, not because countries were ever closed but because the global slump in commodity prices in the postwar period led to a devastating export pessimism which went on to nurture the Prebisch-Singer Thesis despite the evidence put forth by studies based on the post-war experience which argue that the negative correlation between natural resource abundance and economic growth stands *even after controlling for trends in commodity prices* (SW, 2001:828-authors’ italics).

### **5.3 Evaluating the Sachs-Warner Set:**

#### ***The Curse of Natural Resources (2001)***

In general, the ‘resource curse’ is established by a set of economic growth studies based on negatively correlated data from a twenty-year post-war period. In this thesis the ‘resource curse’ is explicitly recognized as a paradigm shift from the previous convention holding that natural resources were a great boon to economic development<sup>181</sup>. By 2001 the somewhat amorphous ‘resource curse’ observation was paradigmatically formalized as “...the observation that countries rich in natural resources tend to perform badly” (SW, 2001:827), having survived, up to this point, six years of at times scathing peer review regarding their econometric applications, to have nevertheless become accepted as an “...demonstrable, empirical fact” (SW, 2001:828). Indeed the authors claim to rule out the notion that the curse of natural resources “...is a statistical mirage from natural resources being the only surviving sector in slow growth countries” (SW, 2001:831). As the shortest paper in this series, *The Curse of Natural Resources (2001)* represents the maturation of the ‘resource curse’ phenomena since Gobind Nankani (1979) evaluated the special comparative nature of mineral-exporting countries, therein setting a structural foundation for the oft-cited early works of Richard Auty (1990,1993) and Alan Gelb (1988).

In this paper the authors cinch together what can be aptly referred to as the Sachs-Warnerian narrative, beginning with *Economic Reform and the Process of*

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<sup>181</sup> The oft referred to embodiment of this convention are the words of Norton Ginsburg, who was cited in Rosser (2006:557) as writing, “...the possession of a sizable and diversified natural resource endowment is a major advantage to any country embarking on a period of rapid economic growth”.

*Global Integration (1995a)*. In an effort to answer whether the curse exists as well as furnishing an explanation for it, and beyond reiterating principal econometric findings from their earlier papers, a key purpose of this executive summary is two-fold. In the first place it allows the authors a platform to defend their position that natural resources are bad for economic growth considering the poorest nations seems to simultaneously be the most abundant, as well as defend their policy assertions in favor of open trade, which would reduce resource stocks and increase wealth, and in the second place the authors are able to address persistent claims regarding "...little direct evidence that omitted geographical or climate variables explain the curse, or that that there is a bias resulting from some other unobserved growth deterrent" (SW, 2001:827).

To this extent the authors present a "special example" whereby a geographical variable, characterized as constant through time and growth, projects a subtle bias throughout the negatively associated data set therein misleading interpretation. The broader conditionality operating on this variable is that natural resources are randomly distributed. Sachs and Warner's rationale merits its excerption:

"If we let time pass in such a world, eventually the countries with favorable geographic conditions would have high income, since they would have been growing for a while. Because of their high income, they would appear to have low shares of natural resources in the economy— not because they were inherently poor in natural resources, but because the rest of

the economy would have been growing. On the other hand, the poor-geography countries would still appear to be high-natural resource economies, since the rest of the economy would not have been growing. Now suppose we were to measure growth and natural resource as a share of GDP after this process had been unfolding for a while. We would tend to find a negative association between growth and natural resources as a share of the economy. But in our special example, this negative association would be driven by geography, which we do not observe, and not by any inherent penalty from high natural resources”

*The Curse of Natural Resources (SW, 2001:830)*

Given the authors rationale, previous growth would be correlated with omitted geography variables such that the previous growth would then approximate geography. So that if over time the robust significance of the natural resource variable relative to previous growth is shown, then the claim of bias is technically invalidated; such that the “...relevant question then is whether the natural resource variable stays in the regression even after controlling for previous growth” (SW, 2001:830). Sachs and Warner observe the work of Sala-i-Martin (1997) and Doppelhofer et al. (2000) for having effectively answered this question, writing that they, “...classify natural resources as one of the ten most robust variables in empirical studies on economic growth” (SW, 2001:828).

The authors propose two ways this technicality could occur. The two possibilities vary along the lines of difficulty in observation. If the geographical variables affecting growth is hard to observe the authors suggest simply controlling for previous growth rates in the regressions, but if those variables are

not hard to observe the second solution is simply to control for them in the regression. The authors report that the results of their 1997 paper failed to find evidence "...that controlling for the previous decade's growth rate altered the negative resource affect" (SW, 2001:830). To control for the geographical variables in the regression directly the authors, relying upon another Sachs paper, compare the impact of geography<sup>182</sup> on growth per capita relative to openness in general, faster convergence among open economies, and resource intensity as it stood in 1970, thus as a result of previous policies. Thusly restricted the authors were able to establish that in general geographic variables did not "...eliminate evidence for the curse of natural resources" (SW, 2001:830). Ultimately Sachs and Warner found no clear evidence that after controlling for previous growth in the 1960s or for geography and climate variables in general, that an omitted variable remained to account for the curse of natural resources; therefore, in a subscription to Popperism, the robustness of the natural resource variable appears to stand as "controlling for previous growth rates does not eliminate the natural resource variable from the regression. And direct controls for geography and climate variables do not eliminate the natural resource variable" (SW, 2001:831).

Having thusly established the existence of the curse, the authors go on to review leading explanations for the phenomena though, considering that many explanations are couched in terms of Dutch Disease and its associated crowding-out logic, including the set paper just previously discussed, *Big Push*, the authors admit they are limited in the endeavor to provide a complete explanation to the

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<sup>182</sup> Includes percent of land area close to the sea, distance to the major port, percent of land area in the tropics generally, and the likelihood of contracting malaria. For more see Gallup, et al., (1999): Geography and Economic Development. *International Regional Science Review*. 22(2), 179-232.

extent that the question of what ultimately drives growth awaits better answers. In the work embodied by the focal subset of this thesis Sachs and Warner hold traded manufacturing activities as the driver of growth. Their overall explanation of the negative effect of natural resources involves an income effect whereby an increase in wealth from extractives income are conjunct with increased prices for non-traded services creating a domestic business environment of higher than normal price levels for non-resource related firms which then become less competitive globally as international prices, averaged across countries, remain relatively stable but domestic inputs become more expensive. The impediment to export-led growth is the weakened competitiveness. Since SW are concerned with the size of an economy rather than the distribution of wealth and it is well known that the largest economies are the products of successful manufacturing sectors, the authors convey that the stability of an economy and the propensity toward wealth is given by the fraction of the contribution of export growth of manufactures relative to overall GDP growth. To this extent, “countries will have a small contribution from exports of manufactures if either exports grow slowly or if these exports represent a small share in the economy” (SW, 2001:835), meaning that for Sachs and Warner, more important than the size of an entire economy is the size of the manufacturing sector within it, and I would add if applicable. Therefore if natural resources can be linked to a disappointing manufacturing ability then an industrialization-based case for the ‘resource curse’ could be legitimate as long as questions of distribution and access are left disjointed. Indeed, the authors demonstrate such a tendency in this 2001 paper, a strong



inverse relationship between natural resource abundance and the export contribution to growth, leading them to surmise that since the export-sectors of many resource abundant countries are uncompetitive, possibly due to high domestic price levels, that they never successfully pursued export-led growth; therefore, open trade policies are critical to economic development.

While this is Sachs and Warner's understanding and approach to the problem of poor development the authors do observe other explanations with similar theoretical foundations based on expansive and contractive wealth effects such as those asserting education or institutions as the driver of growth. In these explanations are the behavioral channels positing any manner of predation from rent-seeking and patronage to institutional capture and governmental usurpation, as well as those termed 'purely economic'. Assuming an industrial capacity, crowding-out is a factor and the logic precedes that innovation via entrepreneurial activity is diminished as these potential innovators and entrepreneurs migrate their labor to the resource sector to reap higher wages leading to lower innovation and lessened opportunities for learning-by-doing. Since it results in a crowding out effect counter to the Dutch Disease channel, the authors highlight the possibility of the crowding out of entrepreneurial activity in assembly manufacturing from the perspective of labor aristocracy due to evidence of wage premiums in the natural resource sector. Citing evidence from Trinidad and Tobago found that workers, presumably of similar skills, earned different wages correlating with their sector where wages were higher in the oil sector than in assembly-type industries. While the authors explain that while the wage differential could be

compensate unobserved higher productivity of petroleum workers<sup>183</sup> or even be a form of hazard pay for dangerous working conditions, they convey that if labor aristocracy, the preservation of higher wages in the petroleum sector, is in play then manufacturing may not be crowded out by the extractive sector via increased higher wages because the wage floor is artificially fixed by industrial convention. As it relates to entrepreneurs and rent-seekers alike, a fixed high wage floor is a deeply profitably incentive for opportunists to invest in trying to gain entry into the petroleum sector thus affecting the levels of legitimate growth-promoting activities (SW, 2001:837). This leads to behavioral explanations characterized most often as affecting resource rich countries.

Assuming an underdeveloped capacity, crowding-in is a factor, such that the rents from natural resource booms present opportunities for corrupt activities due to the highly concentrated and potentially appropriable nature of elite rent control, which itself is not always supportive of pro-growth activities or even capable of appropriate pro-growth management; both of which are distinctly different as the former relates in this case to extraversion or the endogenous, systematic undermining of development while the latter refers to the systemic underdevelopment of economic sovereignty.

By Sachs and Warner's accounting the various narratives based on the Dutch Disease mechanism stimulating wealth-induced expansion and contraction of a country's economy are "...the most likely explanations for the curse of natural resources" especially because "other possible explanations do not pass

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<sup>183</sup> Clearly if a tangible increase in wages is warranted and extracted the increased productivity is observed, though maybe not statistically operational. See moss on fees and hazard pay for dangerous conditions.

even a cursory look at the data” (SW, 2001:835), among these the authors classify the level of savings and investment as well as the weak evidence for an association between non-authoritarian political systems and income inequality (SW, 2001:836). Also while the authors acknowledge it has no explanatory bearing on slow growth the research team nevertheless entertains the space to promulgate the ‘white elephant’ narrative, which, founded on assertions of sloth and general incompetence, posits that natural resource countries waste the natural resources on unproductive projects as the basis of a permanently lower level of GDP than would have been enjoyed with optimal use of its natural assets (SW, 2001:836).

Nevertheless all of these reasons reinforce and interact with each other to support the authors’ conclusion that the curse of natural resources is “a reasonably solid fact” from the commonality of stagnated growth since the 1970s to the lack of evidence for omitted variable bias or unobserved heterogeneity the curse effects still stand and can even support behavioral claims and macroeconomic assertions of poor competitiveness leading to these countries tending to miss-out on export-led growth. Sachs and Warner add that with the exception of successful cases of resource led-growth such as Botswana, “...natural resource abundant countries systematically failed to achieve strong export led growth or other kinds of growth” (SW, 2001:837), presumably, political power and progress. Still, a key argument against the resource curse is historical being that natural resource-led development was instrumental behind the success of the world’s economic power centers today driven by the Smith-Ricardian logic of comparative

advantage and exchange. Unfazed, Sachs and Warner maintain that the proportion of the total economy driven by natural resources was far greater from 1950 through 1999 than it was from the 18<sup>th</sup> century through 1914, thus their rebuttal argues that not resource abundance but resource intensity (SW, 2001:832) is the problem because intensity measures the importance of natural resources in the economy. The more important the extractive sector the more likely crowding out-crowding in behaviors will be apparent.

### **Critical Commentary on (SW, 2001)**

While it is true that unparalleled technological change has a role in the increased intensity of resource development as more of the resource-rich majority is brought online, it is also true that technology along with other geopolitical factors have led to unparalleled wealth accumulation; which itself engages reflexively with the highly skewed distribution of resources and market access. The argument could be raised that if Sachs and Warner are concerned with poverty reduction, as indicated by their stance on convergence in *Economic Reform*, why not take a measurement that would indicate a distributive failure such as the ratio of natural resources per-capita to social service offering availability and participation per capita. The authors are explicit that they want to measure natural resources in the economy, not just per-capita, as it is the better measure of crowding out theories (SW, 2001:830). Thus while poverty is a real issue to be managed, at the least, Sachs and Warner are far more interested in the impact of natural resources in high-risk geographies on global business arrangements. For example, the authors note that resources per-capita are higher in Canada than in

Zambia even though natural resource production is over 50 percent of the  
Zambian economy as opposed to lower than 10 percent of the Canadian economy;  
thus natural resources pose more of a risk to the economic activities of Zambia  
than Canada.

It should be said that in 2001 Canada had a higher land to population ratio,  
giving 7.8, compared to Zambia's higher population to land ratio, giving a  
population density of 33.6<sup>184</sup>. While more resources distributed over fewer people  
in a politically stable environment compared to less resources distributed over  
more people in a politically unstable environment is a fair comparison of  
diametrically opposed circumstances, for which there are many reasons, it  
nevertheless obscures the fact that while Zambia was an extractive economy  
Canada was relatively more balanced; thus the resource production values would  
be appropriate and reflect the economic structure from which they are derived.

Fundamentally Sachs and Warner hold that the difference between  
resource-led development in the past and more presently rests on a very subtly  
juxtaposed argument that endogenous resource dependency, rather than long-run  
optimization of natural capital, disadvantages developing economies. Ultimately,  
foresight along with the ability to both dictate initial conditions and monopolize  
the head-start, cleaves the world's economic successes from its failures; that is,  
“[t]hose who predominate in the process of ceaseless accumulation gain power,

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<sup>184</sup> A Google search provided 290,586 sq miles (752,614 km<sup>2</sup>) as the size of Zambia and 3.855 million sq  
miles (9.985 million km<sup>2</sup>) as the size of Canada. The population of Canada for 2001 was found at  
[http://en.wikipedia.org/wiki/Canada\\_2001\\_Census](http://en.wikipedia.org/wiki/Canada_2001_Census) and 9,770,199, the population of Zambia in 2001, was  
found at <http://www.indexmundi.com/g/g.aspx?c=za&v=21>.

which emanates from the creation of wealth” (Babones and Chase-Dunn, 2012:167). In this light poverty is a byproduct of natural selection where regimes of the fit rule, though Sachs and Warner are hardly the first fashionable economists to advocate such ‘international Darwinism’ as Oswaldo De Rivero writes of it in his 2001 text, *The Myth of Development*. In it Rivero also discusses how truly left behind raw materials exporters are not only in the face of capital flight, but in the face of the technological march away from raw materials dependence catalyzing a process of deproletarianization and dematerialization so that access to education and technological knowledge is a critical imperative.

The following section summarizes a view of how the idea of the ‘resource curse’ is developed through the selected works.

**6.1 Analytical Commentary on Shared Patterns within the Selected SW-Subset**

By now it is clear how *Economic Reform and the Process of Global Integration (ER)* and *The Curse of Natural Resources (CNR)* are the bookends of the sub-set. While *CNR* refutes doubts that the resource curse exists, posits a Dutch Disease-based explanation and reviews similar explanations, the role of *ER* is two-fold. In the first place it lays out the ideological atmosphere of the tripartite era and in doing so outlines a recent point of departure from which more evidence would accumulate on the poor growth experience of resource-rich countries in the post-war era. In the second place *ER* presents a classification scheme that prioritizes free trade as the driver of convergent growth, and problematizes threats to free trade including self-sufficiency.

Economic Reform provided the definitions for open and closed economies which holds for the of the set and the econometric analysis, which is mirrored throughout the sub-set, as well. *Natural Resource Abundance and Economic Growth (NRAEG)* is a direct extension of the tests run in *ER*, and hazards subjection to the same econometric criticisms so plainly spoken of in the real-time peer discussion and commentary of *ER*. The forecasts of secular decline in the terms of trade and the skeptical environment of export pessimism outlined in *ER* supported the popular idea that natural resources can be a development impetus for poor nations as it had been for the wealthy nations thus *The Big Push, Natural Resource Booms, and Growth (BP)* refers back to the content of the *ER*

focusing on the ideological atmosphere while dealing directly with what would seem to be a historical double standard by noting the increased resource intensity of developing economies today relative to the resource rich economies of the past.

“...Sachs was fully aware of the historical significance of what he had accomplished”. “Bolivia was really the first, in my view, combination of democratic reform combined economic institutional change and Bolivia more than Chile showed that you could combine political liberalization and democracy with economic liberalization. That’s an extremely important lesson, to have both of those working in parallel and each one reinforcing the other”

(Klein, 2007:189 citing Jeffrey Sachs in *Commanding Heights: The Battle for the World Economy*, March 20, 2001.)

Another pattern shared between *ER* and *BP* is the ‘zero-balancing’ mechanism Sachs and Warner engage in order to demonstrate and effectively magnify growth in the former and a lack thereof in the latter. Regarding *ER* it was described in detail earlier in this thesis how the authors mathematically cancelled previous growth to the extent of negative growth, expanded in chapter 3 by Naomi Klein’s narrative, then proceeded to judge growth based on the difference between the recent past and the distant future. even though the recent past and the recent future were zeroed out such that the ultimate comparison was between the distant past and the distant future. This operation served to explicitly disregard growth of the distant past correlated with autarkic policy, and draw attention to the poor growth



of the autocracy-correlated recent past juxtaposed against the distant future, which correlated with trade reform as a proxy for overall economic reform. Ultimately the comparison was between open and closed policies such that the distant past and recent future were discounted to demonstrate poor growth in the recent past and relatively strong growth in the distant future. The decrease in growth from the distant past to the recent past reflected an intense macroeconomic pressure to conform to Western norms and the devastating negative growth of the recent future reflected full-scale economic warfare embodied by the extraversion<sup>185</sup> installation of economic reforms.

With respect to *BP*, the authors determined that growth in Latin America was minimal and that resource booms seemed to have done little to generate long-term growth, more likely hindering growth on average (SW, 1999:63). Sachs and Warner claimed to have made this determination based on an eleven country dataset though upon closer inspection the dataset was reduced to eight countries five of which had been considered archetypal ‘resource curse’ cases since the early works of Gelb and of Auty. Thus *BP* can be subject to the similar critique made by Stanley Fischer in *ER* with regard to bias, in that by establishing proof of a resource curse by using archetypal cases of the resource curse to then support an optimized model to demonstrate the mechanisms of the curse effect, the authors stack the deck in favor of their ‘resource abundance equates to slow growth’ narrative. Rather than a scaffolding of poor development outcomes over the an

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<sup>185</sup> Rajan (2011) accredits the term ‘extraversion’ to Jean-Francois Bayart (2009) and characterizes it as what effectively becomes a grand collusion between endogenous elites and foreign interests due to the process of engagement when negotiating for development. See: Bayart, J-F. *The State in Africa: Politics of the Belly*. Second edition. (2009). Oxford. Polity; Bayart, J-F. “Africa in the World: A History of Extraversion”. *African Affairs*. 99 (395) 217; Rajan, S.C. “Poor Little Rich Countries: Another Look at the ‘Resource Curse’”. *Environmental Politics*. 20 (5). 2011. (617-632).

abundant natural resource supply, it is more likely that an abundance of natural resources in an energy and mineral-dependent global economy indicates a lack of successful resource-led development not because it is inherently an inferior strategy but because the systemic conditions for its successful execution had long since passed such that attempts lead to poor development outcomes, which are greatly frustrated by extraversion. Nevertheless Sachs and Warner maintain otherwise.

Another pattern of the set is in regards to the authors' refutation of omitted variable bias. In *ER*, Stanley Fischer pointed out that "Latin American and African countries did quite well in the 1950s and 1960s" (SW,1995a:103) thus the authors oriented themselves against the import-substitution strategy of self-sufficiency from the outset of selecting a starting period forward of 1970. In *CNR*, the authors were reiterating that as early as their *NRAEG* 1997 they had established that controlling for growth prior to 1970 did not yield evidence that resource curse affect had been altered.

While of the set, *ER* established the lack of convergence, there being virtually no overlap between the resource abundant, poor countries and the wealthy, resource poor countries, *CNR* poses the question "If natural resources really do help development, why do not we see a positive correlation today between natural wealth and other kinds of economic wealth"? (SW, 2001:828). Though other kinds of wealth was left undefined in the article, one presumes a command of parity participation in the global economy to be one of these alternative types of economic wealth, and this again would come back around to a

secular decline in terms. *CNR* goes further to state that many resource-rich countries have been so for a long time, perplexed that they are still undeveloped. In doing due diligence of contrasting views in *ER*, the authors mention Romer's hypothesis that the learning by doing process of modernization meant that the first countries to become rich would reflect higher levels of human skills so that if education and training were monopolized it would raise the future productivity of capital and trap the poor countries behind (SW, 1995a:39). The authors also considered a related alternative, that of Baumol's *convergence club* thesis whereby a glass ceiling determined by human capital endowments separates the rich and the poor countries so that the standard of living for those countries with similar economies and similar human capital endowments would converge among each other (SW, 1995a:39). Despite the rational appeal of these theories, Sachs and Warner regard them as intriguing, the authors nevertheless hail the contradictory evidence that open trade would lead to faster convergence, conditional upon a comparison of country's initial level of income and its potential income level (SW, 1995a:40) such that while growth can be shown, equality is not a reality since the timing of open trade policy adoptions is a core initial condition of catching up, and thus of wealth accumulation in general. The following section speaks specifically to resource-based wealth accumulation in the world-system with respect to structural conditions for successful development.

## **6.2 The Resource Curse from a World-Systems Perspective**

In the domain of world-systems scholarship there is a debate between Wallersteinian analysts, trained to hold the western capitalist state as the universal

archetype against which failures in modernization are compared, and “humanocentric” world-system historians, who compellingly assert that all the world did not begin in Europe therefore European macro-structures are not prototypical. These historians, which Wallerstein would refer to as comparative historical systems analysts, forward the critique that “[w]orld-systems analysis is not so much “incorrect” as it is insufficiently world-historical and world-systemic” (Babones and Chase-Dunn, 2012:159). The two should not to be taken as mutually exclusive, since it is true that capital accumulation is a long-term social process, which is not pre-determined by the European experience, but that the ‘curse’ determination of natural resources is a Eurocentric ideological execution of control such that the Wallersteinian analytical approach is equally as compelling in its application.

To this end, Wallerstein writes of four unique attempts to adapt the dominant social science premises<sup>186</sup>, centralizing the western world, to the transformed global realities of the post-war geopolitical environment. The adjustments, all of which presents a qualitative parallel to Sachs and Warner’s relatively constrained treatment of convergence in *ER*, included the idea of ‘catching up’ by adopting proven socio-cultural policies as the foundation of modernization theory; dependency theory led by Prebisch, in which catching up could not be effectively led from the socio-cultural arena but required control in political and economic domains, arguing that secular decline in trade terms

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<sup>186</sup> Based on the cleaving of the separation of the western world from the rest of the world whereby economics studying the market, political science studying the state, and sociology studying the civil society became a trio of nomothetic disciplines generalizing the western world while anthropology covered small “tribal” groups and Oriental studies covered frozen “high” civilizations (Wallerstein in Babones and Chase-Dunn, 2012:516).

undermined convergence; several bifurcations of Marxist revisionism which in the first was similar to western-led modernization ontologically with the exception that the former USSR was to be the global exemplar then leading to an intellectual revolution as the Asiatic mode of production implicated multiple development paths if people could but wrench themselves free of despotism<sup>187</sup>; and the Braudelian concept of the *longue durée*, which minimized episodic political history and emphasized patterns of socioeconomic history over time. By viewing the resource curse through Wallerstein's world-systems perspective allows the evaluation of the selected sub-set as the embodiment of an intellectual argument and also as an organizational apparatus.

The following section focuses on the constructed reinforcement of Sachs and Warner's professed and implicit ideological leanings as presented by the interaction of the selected papers, closing the loop with a return to *Economic Reform*. From a return to the original point of departure this section redirects from the more specialized econometric and development economic literature toward the broader political economic domain to scale up the authors' leanings and policy prescriptions within a world-systems perspective; particularly guided by Astra Bonini's emphasis of cooperative versus competitive regimes of accumulation as it relates to capital access and developing nations.

### **6.1a The Resource Curse as Intellectual Argumentation**

There is nothing new about capitalism or about capital accumulation. World

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<sup>187</sup> This enabled Marxist analysis to transition from trying to fit non-western history into a sequence derived from the analysis of European institutions and thought (Wallerstein in Babones and Chase-Dunn, 2012:517).

Systems Analysis is the study of global development through the processes of capital accumulation, while World-systems History is the observation and evaluation of long-term historical continuities that pattern global history. While the transitional ideological modes of the various lines of western thought, such as rugged individualism, the inherent self-interest of men and survival of the fittest, predominate the rhetoric and policy of economic development world-system historians take a necessarily longer and more inclusive view of development activities that include the processes and narratives from beyond the Eurocentric perspective on time, space, and change. For instance Robert Denmark and Barry Gills write, “From the perspective of world-system history, one must raise questions about conceptualizations of hegemony that begin with modern states like Portugal, the Netherlands, or Great Britain. These actors were not as wealthy or as dominant as the coterminous Ming/Qing China or Moghul India, though they outlasted them. *The story of the domination of western hegemonic states may be more a function of ideology than historiography*” (in Babones and Chase-Dunn, 2012:158; italics-MM).

In Sachs and Warner’s *ER* the authors discuss an earlier period, prior to 1914, of internationalization whereby free-trade drove wealth creation and institutional harmonization as if because circumstances had been thus before that this justifies a view of a permanent natural order that merely met with interruption (the short-twentieth century); but a historical-analytical world-system approach has observed a periodicity of economic rise and decline such that a “*temporary* rise and decline of some states relative to others” (in Babones and Chase-Dunn,

2012:158) is the norm to the extent that there are more periods of rivalry than hegemony and therefore a natural economic order is indeed ideologically held more than it is a historical predetermination. Since hegemony cements ideology for the temporary period of its dominance its no small wonder Viner was held a notoriously visceral stance against Prebisch and Singer's theses on the secular decline in the terms of trade for raw material exporters, though such contempt, shared by Sachs and Warner, could have only been ideological.

Consider that from a world-system historical perspective hegemony is defined as a force-mediated hierarchical structure of the accumulation of surplus whereby the hegemon polities "subordinates secondary centers and their respective systems of production and accumulation" (Gills and Frank, 1990, 1991, 1992 in Babones and Chase-Dunn, 2012:158), giving not only the central complaint of Prebisch's *Economic Development in Latin America* and but also the rationale behind Sachs and Warner's associative debunking of the 'big push' theory discussed earlier. In what amounts to rhetorical games, albeit with real consequences, the rise and triumph of neoliberal globalization heralded in Sachs and Warner's *ER* justified the force (intellectual, economic, and physical) required to reverse the changes (political, economic, and cultural) that followed the dominance of centrist liberalism in the post-war era from 1945-1970. Wallerstein maintains that this truly "political campaign was given the deceptive label of neo-liberalism" (in Babones and Chase-Dunn, 2012:519) which was actually developmentalism turned globalism after 1970. First tested in Latin America, then more mildly executed in the twin Regan-Thatcher administrations,

Wallerstein corroborates Naomi Klein's assertions of violent extroversion as he writes of globalization,

They used this new framework to impose, primarily via the US Treasury and the International Monetary Fund (IMF), a practical program that came to be called the Washington Consensus. It demanded that all countries that were not "developed" institute a program that gave priority to export-oriented growth, while simultaneously opening their border to foreign direct investment, privatizing state enterprises, reducing their welfare programs, and downsizing their bureaucracies. Geopolitically, this political effort was enormously successful worldwide in a period running from the mid-1970s to circa 1995.

*Wallerstein in Babones and Chase-Dunn,*  
2012:520

Based on data from this successful period of re-establishing global control, the framework for the 'resource curse' was laid as a practical extension of intellectually justifying, theoretically explaining through Dutch Disease assertions, and otherwise maintaining subordinate control. While all accumulative regimes will inherently have some requisite measure of control, be it an exclusive guild in one field or global domination in all commercially relevant fields; such is largely driven by current industrial-political interests, ambition, and executive command of power. And still history demonstrates that accumulation does not always equal poverty. Thus economic growth is arguably as much about the greater structural channels as it is about product innovation, unless the product is an intellectual amendment to structure, as the diagnosis of a 'resource curse' would seem to be.



## **6.2 The Resource Curse as Organizational Apparatus**

According to adherents of world-systems analysis, the socio-commercial realm is spatially tripartite where power extends from the core to the semi-periphery and periphery states. While this general pattern does illustrate the core-centric diffusion of power, the structure of the world economy plays a major role in the reflexivity of the semi-peripheral and thus peripheral states to the mandates of the core. World-systems researcher Astra Bonini hypothesizes that the limiting factor in the economic development of resource abundant countries is the core-led structure of the world-economy. While Sachs and Warner have treated the correlation of resource abundance and economic growth in a nomothetic fashion giving ‘the curse of natural resources’, Bonini refutes the argument that resource abundance leads to poverty through economic peripheralization, conversely asserting that the twentieth century U.S. regime is competitive and hostile to the economic development of potential rivals as compared to the nineteenth century British regime of accumulation, which was complementary to the development of the resource-rich nations.

Hinging on a historical review of the legitimacy of the declining terms of trade claim forwarded most famously by Prebisch and Singer, Bonini argues that, “what appears to be a structural linkage between raw materials production and peripheralization is merely an outcome of the particular structure of the twentieth century world-economy” (Bonini, 2012:54). She explains that studies by Imlah (1950) and Sarkar (1986) found that during times concordant with the British regime, respectively 1798-1913 and 1801-1881, terms of trade were in favor of

raw materials exporters averaging 82 percent and 87 percent. Citing Cypher and Dietz, she points out that by 1881 "...raw materials producers were able to purchase twice the amount of imported manufactured goods as they had been able to purchase in 1800 with their export revenue" (Bonini, 2012:54).

While there were ups and downs, the overall trend for this period was in favor of raw materials exporters. Historically this would support an argument that it is counter-productive for resource abundant countries to industrialize since they could afford to meet the full quantity of their surplus needs through importation. As Bonini notes (57), "colonies and countries committed to exporting primary products saw virtually unlimited exports and credits under the British regime and had very little incentive to industrialize given that the terms of trade, at least before 1914, seemed to be running in favor of raw materials" (citing Hobsbawm 1987:64-65). But when the pre-symptomatic decline in terms of trade began around 1883, fully coming to a head in the great depression years of the post-war period, raw materials exporters were no longer able to meet their needs catalyzing the domestic policy shift toward self-sufficiency; squaring themselves in opposition to the newly adjusting American regime. Raul Prebisch describes the Latin American response to the trade and monetary shifts introduced with the US regime stating, "such measures had never been applied as widely as in those days, since there had never been a shortage of pounds sterling under the monetary hegemony of London" (Prebisch, 1950:29)

Citing a study by Grilli and Yang (1988) Bonini explains that for raw materials exporters the decline in term of trade was about 0.5 percent per year

from 1900 to 1986 but after this time additional studies<sup>188</sup> reported that through the 1990s that decline was estimated to have increased to between 2-4 percent annually. This means that by a measure of the decline in terms of trade through the 1990s rate of divergence between the resource exporters and industrial societies was between 150% and 350% per year. These countries transitioned from being participating members of a cooperative global economy to, as explained in Sachs and Warner's *ER*, having no one to cooperate with (SW, 1995a:14). That is, these countries had no position that could be referred to, in the same manner of its former iteration, as cooperation. Prebisch concisely illuminates this change of circumstance when he stated,

“ The United States is a powerful and well-integrated economic entity and has become so largely through its own deliberate effort, the great significance of which is recognized. One cannot overlook, however, the fact that this brought about, for the rest of the world, conditions incompatible with the functioning of the international economy in the same way as before the First World War, when the British centre strictly observed the rules of the game in the fields of monetary policy and foreign trade”  
*The Economic Development of Latin America and its Principal Problems* (Prebisch, 1950:17)

Bonini bases her hypothesis of British complementary versus US competitive regimes of accumulation from insights presented by Giovanni Arrighi whose framework demonstrates “ how the history of capitalism has been characterized

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<sup>188</sup> Maizels et al., 1998; Cashin and McDermott, 2002. See also Grilli and Yang, 1998; Cypher and Deitz, 2004; Imlah, 1950; and Sarkar, 1986.

by a succession of hegemonic powers that have each defines and made efforts to control regimes of capital accumulation on a world scale” (2012:56), where ‘regime of accumulation’ is defined as “the strategies and structures through which these leading agencies have promoted, organized, and regulated the expansion or the restructuring of the capitalist world-economy” (Arrighi 1994:9 as cited in Bonini, 2012:56). Adopting this framework her analysis uncovers that there were more opportunities for the economic development of raw materials exporters under the British- centered regime that had a complementary industrial policy.

The British used high tariffs to discriminate against foreign manufactures but their raw goods duties were relatively near rock-bottom at an average of 6.9 percent compared to as high as 40 percent on manufactures (Bonini, 2012:56). Still greater than low barriers to entry, the real advantage to raw goods exporters was the “highly decentralized and differentiated” (56) business structure of Britain. Bonini writes that it was “impossible for British corporations to control all aspects of global production” (56). This paradigm shift in the organization of commerce is what Prebisch refers to as the ‘rules of the game’ it and made the critical difference in the development opportunities for the semi-periphery. By specializing in manufacturing and attendant activities that facilitate trade for manufactures, Britain was not competing for control of the raw materials production process. That is Britain had the ambition and executive command of power but it did not have the industrial-political interest of raw materials production, leaving the comparative advantage to be exploited by those who

would have it.

Contrary-wise the US-centered regime is marked by high levels of operational concentration (mergers and acquisitions) leading to the near total control of the commodity chain in tight vertical integration. Here the relation to beta-convergence discussed in Sachs and Warner's *ER*, is clear in that like economies, similar at some threshold, do business and grow together while those dissimilar, or below the threshold, fall further behind. The vertically-integrated multinational structures of U.S. corporations effectively depresses the competitive advantage of other natural resource producing countries since they are able to compete "in all aspects of raw material production in locations around the world" (Bonini, 59 citing Chandler, 1990). I would argue that this defines what Wallerstein refers to as the 'ceaseless' imperative of capital accumulation such that "those who dominate in the process of ceaseless accumulation, gain power which emanates from the creation of wealth" (Denemark and Gills:167, in Babones and Chase-Dunn, 2012). The contrast in operational dominance is further drawn between Britain and the U.S. in that "the British regime provided raw material producing countries with access to the means of raw material production (capital, technology, and knowledge)" (Bonini, 2012:57) whereas, after taking into account the full extent of global integration and institutional harmonization, as well as vertically integrated commerce under the U.S. regime, a global distribution of oligopolies acting in self-complementation of the U.S. foreign and industrial policy can be described in the likeness of a viral monopolist:

“Rather than supporting the development of other countries as independent raw material producers by providing access to its markets, capital, technology and knowledge, the United States has appropriated a large portion of the value added in foreign raw material production while also competing in raw material export markets”

*Complementary and Competitive Regimes of Accumulation:  
Natural Resources and Development in the World System* (Bonini, 2012:59)

Bonini goes on to explain that those countries that do not “succumb to the ‘resource curse’”, such as Suharto’s Indonesia are surrounded by an air of developmental exceptionalism, which is traced back to U.S. geopolitical interests (59). By incorporating countries like Indonesia, which became one of the world’s top recipients of financial aid, into the capitalist sphere of influence the U.S. was able to stem the spread of communism throughout Southeast Asia. Remaining an aid recipient until the end of the 1980s and early 1990s large sums poured into Indonesia “because of its strategic geopolitical significance, making Indonesia an exception to the general rule of the ‘resource curse’” (60), thus it is evinced that the ‘resource curse’ is an intellectual extension of foreign policy executed as an organizational apparatus that disrupts, and prevents, foreign national development from becoming a potential competitor.

Today, the United States, Britain and Japan are world leaders in advanced technologies services and, along with up and coming India, and China is leading the east as the world leader in manufactures all of which amounts to a economic

restructuring on a world-wide scale in the 21<sup>st</sup> century. Noting that the current uptick in commodities, initiated at about year 2000, has resulted in a reversal in the decline of trade terms. Bonini posits that, “a China-centered regime of accumulation would be more similar to the British regime than to the U.S. regime, and therefore complementary to raw material producers” (62). In the sense that China’s manufacturing sector is decentralized and non-monopolizing of the supply chain in that regard, and as it specializes in consumer goods manufacturing becoming the new ‘workshop of the world’ it will “likely require liberal trade policies on raw material imports to secure adequate supplies of raw material inputs for the economy” (62). By far the most important similarity between a Chinese-led regime and the British-led regime is the complementarity of their respective interests relative to raw materials exporters. For instance, Britain’s wealth was not threatened by the development of countries specializing in extraction since it was linked to manufactures, commercial and financial activities (57) whereas unlike the U.S. strategy of wealth creation, “China’s wealth does not depend on its ability to crowd out raw material producers” (63) but instead creates the demand necessary for social overhead capital developments (SOC) per Rosenstein-Rodan as well as access to capital loans, foreign exchange, and cheap manufactured goods. In this Bonini gets to the heart of Sachs-Warnerian narrative of the ‘resource curse’, in that *CNR* maintains that the most likely explanation for the ‘resource curse’ is some variant of crowding out (SW, 2001:835) and *BP* demonstrates the ways reverse-crowding out, what I referred to as the hyper-performance of Dutch Disease, effects the effectiveness of carrying

out the US industrial policy of “crowding out other raw materials producers” (Bonini, 2012:64). She asserts that when hegemonic regimes shift so do the opportunities for development of peripheral nations in accordance with the industrial strengths of the incoming hegemon, therefore,

“Theories and policies based on the assumption that raw materials production is equivalent to peripheralization in the world-system, or that there is a “resource curse” whereby countries that produce manufactured goods will always outcompete countries that produce raw materials incorrectly assume that the structural conditions within which countries compete are static” (64).

That the theories and policies assume static conditions is evident in the optimized model of an industrial economy in *BP* where the conditions are formalized as assumptions governing labor mobility, sectoral production, and the relationships between profits and the potential spread of industrialization, as well as profits and the level of sectoral productivity that would incentivize entrepreneurs. The monopolization of the technological advantage is among the assumed conditions as well since restricted access to technology keeps the prices of the cottage industry low allowing for the continued outperformance of industrial firms operating with advanced production technologies when the profit maximizing price is not lower than the competitive fringe and thus their presence cannot simply be ignored in the marketplace (SW, 1999:53-54).

In regards to the way in which SW’s model represents both the sustainability of the structural interest and a problematic facet of the structural process, where northern firms monopolize the technological advantage, Sachs and



Warner's views on crowding out remain focused on the crowding out of northern firms via sovereignty movements; though since the north controls the access and retains the technological advantages of managing the value chains, such endogenous shifts frustrate the applicability of the industrialization assumptions. Blocked from technological access this leaves resource abundant governments in a position to become rentier-states, since without the internal development of SOC the rents would have no hard infrastructures to be channeled through, that is, this may explain the claim of rentier-statism since these governments might know how to collect a check but not how to technologically develop a competitive economy, irrespective of a desire to do so.

The presence of China as an economic superpower is changing this. A striking example of the effect that China is having on the opportunities of resource-abundant countries and on the resource curse determination itself is the case of Zambia. Recall that Zambia was one of the prototypical cases of was made a prototypical example of the 'resource curse' by its inclusion in Richard Auty's seminal work, *Sustaining Development in Mineral Economies: The Resource Curse Thesis* (1993). While both Auty and Bonini acknowledge that Zambia's copper mines were in decline throughout the 1990s, Auty suggested the mines would not support development as they were nearing depletion while today Bonini writes, "China now offers a growth market and Zambian mines are thriving" (63). Such a report would indicate more about trading relations than it does about mineral depletion. Ultimately, Bonini demonstrates that the trade regime of the economic hegemon has a role in determining the development

opportunities of poorer countries due to its influence on the global economic structure and therefore “inequalities in the wealth of nations cannot be addressed by merely transitioning low income countries out of raw material industries” (65).

**Chapter 7:**  
**Concluding the Sub-set Analysis**

Now the two guiding questions of this thesis can be answered: When did natural resource abundance become ‘bad’ for development and why? In terms of hegemonic power the evidence indicates that resource abundance became ‘bad’ for development with the rise of U.S. economic supremacy and that the negative association of natural resource abundance and economic growth is demonstrative of a highly restrictive timing and classification scheme that parallels this rise of power based on market access and the monopolization of the value chain; such that resource-led development was not always considered an inferior economic activity. Indeed as Bonini points out, “ the widely accepted linkage between raw material production and peripheralization seems to be related to the twentieth century world-economy and does not seem to be a generalizable relationship outside of this particular time period” (Bonini, 2012:55).

While the literature is clear that radical structuralists in the post-war era, such as Prebisch, Singer, Rosenstein-Rodan and other theorists of what Paul Kruger refers to as the high-development era, heralded the coming of a paradigm shift in the esteem toward natural resources as a development pathway, the mainstream literature on the ‘resource curse’, in the face of the Sachs-Warnerian narrative, caricatures the notion that resource-led development would trap poor economies in obsequious poverty. High development theorists pushed not purely against resource-led development but instead for a structurally sensitive long-run view of natural resources as a measure of sovereignty from the economic tyranny of U.S. industrial policy. Prebisch links the beginning of the end of development

opportunities, associated with a largely cooperative British regime of accumulation, to the gold standard in the 1930s; another factor of resource-development and autarkic rationale largely ignored by the Sachs-Warnerian narrative. Prebisch explains that at the helm of the global economy the United States managed its growth through

A tenacious retention of gold, to the detriment of the dynamic forces of the rest of the world...[who] were obliged to adjust their relationship with that centre in order that they might be able to continue developing, in spite of the unfavorable influence of the centre and its great absorption of metal

*The Economic Development of Latin America and its Principal Problems* (Prebisch, 1950:18)

Thus this thesis on the Sachs-Warnerian narrative calls into question three conduits of intellectual activity regarding the proliferative ‘resource curse’: (1) its diagnosis (2) its avoidance and cooperative remediation by host countries and (3) the aim of supra-national leadership to ameliorate the effects of the ‘resource curse’ to the extent that related policy prescriptions are self-serving, structural executions of a competitive double standard in the promotion of economic growth more pointedly for the hegemonic U.S. - U.K. economic relation currently in decline.

## 7.1 Concluding The Sachs-Warnerian Narrative

*Economic Reform and the Process of Global Integration* is the backbone of the Sachs-Warnerian narrative on the ‘resource curse’. It reflects the ideological foundation as well as the empirical framework iterated throughout the following papers characterizing the central corpus of the ‘resource curse’:

*Economic Reform and the Process of Global Integration* (1995a)

*Natural Resource Abundance and Economic Growth* (1995b)

*Natural Resource Abundance and Economic Growth* (1997<sub>R</sub>)

*The Big Push, Natural Resource Booms and Growth* (1999)

*The Curse of Natural Resources* (2001)

A contribution of this thesis is that the geopolitical context and socio-cultural impact is less fully appreciated absent the consideration of *Economic Reform and the Process of Global Integration* (1995a) as the grand theoretical framework of the set. Many of the claims of bias can be traced back this paper and its methods. While it is cited more often than *Natural Resource Abundance and Economic Growth*, I failed to find *Economic Reform* cited in the much of the resource curse specific literature. Its inclusion in an analysis of a set of Sachs-Warner papers would integrate the contemporary rendition of the ideological underpinnings of the ‘resource curse’ as well as the foundational methodology behind the determination of a ‘resource curse’ and the larger implications for the application of the resource curse as economic reform. While a close reading of the mentioned works supports an assertion that the authors crafted empirical results around an ideological bias, a foundational premise of that argument is that Sachs and Warner’s *Economic Reform and the Process of Globalization* (1995a) is the most

appropriate point of departure for a foray into the authors ideological leanings with the added benefit of historical confirmation. Many of the same issues commonly associated with skeptical views of the ‘resource curse’ such as selections bias, omitted variable bias, and unobserved heterogeneity are present, asserted contemporaneously by their peers, and addressed by the authors in *Economic Reform* as the grand theoretical frame for their ‘resource curse’ narrative. As noted in the introduction, while several authors have analyzed a subset of Sachs and Warner papers (Tilton, 2013; Lederman and Maloney, 2002; Heinrich (2011) refers to a SW-subset), mainly on grounds of econometric over-exuberance, none found initiate their analysis with *Economic Reform*, which shares the same econometric approach and its faults.

The rhetorical analysis in concert with the socio-historical contextualization and the world-systems perspective reveals that Sachs and Warner’s development and application of the ‘resource curse’ was knowingly founded on biased intellectual premises and modeling then proliferated throughout developing nations as an affliction for which trade reform as a proxy for “...other parts of the reform agenda” (Sachs and Warner, 1995:106) was the prescribed advice. This led to an imposed condition of more rigorous competition, altering the political economy, constraining the government's macroeconomic policies and manipulations in the economy, and subjecting institutions that want access to international markets to the scrutiny and conditionality of the international environment” (Sachs and Warner, 1995:106), which is known to act punitively toward those countries who would make their path to a free-market regime in a sovereign way. History shows

that acquiescence is the solution more unlikely to lead to the assignation of a non-compliant leader. Further, if the resource curse is proven a biased intellectual apparatus the grounds for international intervention of sovereign nations on the basis of preventing the resource curse effects via transparency regulations are unfounded, breeches of sovereign autonomy, the effects of which are patently hazardous to the health and well-being of the affected nations' populations. To this degree, the resource curse may be less about reducing poverty, or even rectifying poverty-ridden conditions by combatting corruption and increasing transparency, than it is about securing access and effective ownership of natural resources amid an energy-driven geopolitical and social evolution where some countries are reduced to squeezing oil from sand in order to increase supplies and market-share.

While the analytical content of this thesis has been largely qualitative, the 'resource curse' is typically handled in a very quantitative way and this more often than not obscures the true complexity of populations, power, and parity. I have strived to weave these issues together, by no means to the exclusion of the great mass of econometric effort, but to highlight to the larger sociological picture of the resource curse including an analysis of its rhetoric. I end this work with a very revealing econometric review of a series of Sachs-Warner papers that takes into account the responsibility of scholars and the institution of scholarship.

## **7.2 Replicating Sachs and Warner: The 1997 Working Paper**

Most studies that refer to Sachs-Warner data are referring to the 1997-updated version of Natural Resource Abundance and Economic Growth that includes

additional tests of robustness. Davis (2012) runs both a ‘pure replication’ and a ‘statistical replication’ of the all 33 of the regressions presented in the 1997 paper and find unsettling results. Davis focuses on pure and statistical replication in his study as he asserts that the two must certainly precede scientific replication, defined as, “different sample, different population, and perhaps similar but not identical model” (Davis, 2012:3), in order to differentiate between any sampling, population or modeling errors and a problem in the original work.

Where ‘pure replication’ is defined in Davis, 2012 as “to make or do something again in exactly the same way” (Davis, 2012:3). He was able to replicate the findings with great difficulty as he explains; “The replication attempt took longer than it should have because of the many inconsistencies between the reported regressors in the paper and the actual regressors in the STATA file. Without the STATA file the replication may have been impossible” (Davis, 2012:9). Still the SW results supporting the resource curse were reproducible given that “SW’s results can be exactly purely replicated once the countries included in the regressions are determined and the errors in the paper’s reported regressors are corrected [...] There is no doubt that the SW data allows them to measure a resource curse in the 1970s and 1980s that is robust to various sets of conditioning variables” (Davis, 2012:9).

In contrast, when it came to a statistical replication defined as, “different sample, but the identical model and underlying population” (Davis, 2012:3), very different outcomes surfaced concerning the inconsistent sampling by regression of the full country list which biased the results to the extent that of the 211 country



database only 22 of these countries are used across all 32 regressions while some regressions use some of the countries but not others. These selection decisions are not immaterial. For instance, Davis reports that the inclusion of Botswana would have strengthened the resource curse while the inclusion of Somalia, Tanzania, Barbados, Haiti, and Myanmar might well weaken the correlation (Davis, 2012:10).

Also, in several regressions the resource intensity coefficient went from being statistically significant to statistically insignificant in one fell swoop. This affected the conjecture that the resource curse might be operating through Dutch Disease, which was then weakened by the removal of 9 countries; the authors' claim, introduced in *Economic Reform*, that there is a U-shaped relationship between resource intensity and trade openness and that the heavily resource-intensive economies are less protectionist than the less resource-intensive economies was weakened by the removal of 13 countries; and their proposition that higher resource intensity is related to poorer institutional quality, and that this is part of the reason for slower growth, was also weakened by the removal of at least 10 countries for the sample (Davis, 2012:10). These omissions were the basis of key evidence supporting Sachs and Warner's assertion that natural resource production negatively impacted institutional quality and industrialization so that while the negative correlation between resource production and economic growth could be replicated and is robust to different country samples the results giving the specific evidence regarding institutional quality and industrial output was not to be replicated similarly.

The research covering the relationship between institutional quality and resource production has been particularly rich and continues to be so. Davis reports on the results of Stijns (2005) and Mehlum et al. (2006) as well as his own 2011 work; because of the many studies published after SW 1997a, only these three began with pure replications of the relevant SW data. In researching the general idea that the quality of institutions determines susceptibility to the resource curse, Mehlum et al. (2006) added a missing interaction coefficient for resource curse/institutions to the replication of the SW regression testing institutional quality and growth. They reported that poor growth could be the result of poor institutional quality or poor quality could be retarding growth so that the relationship between natural resource abundance and institutions is far more complex than SW could have accounted for in their regression. Ultimately this result means that, “SW’s lone institutional quality variable becomes insignificant once the interaction term is added to the regression” (Davis, 2012:11). Mehlum et al. (2006) maintains that these results hold across different country samples, periods of analysis, and measures of institutional quality. When Davis replicated Mehlum et al.’s regression he found that 65% of the time where a single country is randomly omitted from their 71-country SW sample their interaction effect was insignificant at the 5% level so that their results were contingent on the pure luck that everyone of their samples had complete data and could be included (Davis, 2012:11).

Of particular interest is Sachs and Warner’s treatment of the direct effects of resource booms and busts on economic growth measurements. While the

authors take terms of trade effects into account to control for these cycles Davis points out that this would only address price-led peaks and troughs, not those that are quantity-led. By using his own calculation with data that would have been available to the authors at the time of their study Davis finds that the resource curse is diminished or even reduced to zero when changes in mineral and energy production are taken into account. The result holds when SW's resource intensity measure is substituted into the calculations enabled by available data. Why Sachs and Warner did not use this data is not entirely clear as, "...this lack of scientific replication is not a result of scientific progress or improved econometric methods" (Davis, 2012:11).

Regarding other variables for resource abundance, Davis reports that there has been some feedback that natural resource specialization is driven by underdevelopment rather than being a response to underdevelopment, so that the SXP (Share of primary products exports) variable is more sensitive to patterns of asymmetrical trade relations than physical endowments (Lederman and Maloney 2007b, Alexeev and Conrad 2009, Mehlum et al. 2006)<sup>189</sup>. It would appear that to avoid this less econometric implication, the resource curse is generally associated with mineral and energy production so that SNR (mineral and energy production) is the preferred indicator of resource abundance, though others such as land area per capita (LAND in 1971) and ratio of primary exports to total exports (PXI70 in

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<sup>189</sup> Alexeev, Michael, and Robert Conrad (2009), The elusive curse of oil, *Review of Economics and Statistics* 91(3): 586-98; Lederman, Daniel, and William F. Maloney (2007b), Trade structure and growth, in *Natural Resources: Neither Curse nor Destiny*, Daniel Lederman and William F. Maloney, eds. Washington, DC: The World Bank. Pp. 15-39; and Mehlum, Halvor, Karl Moene, and Ragnar Torvik (2006), Institutions and the resource curse, *Economic Journal* 116 (January): 1-20.

1970) are used as well. When Davis replicated each of the 9 SW resource curse regressions with mineral and energy production as the independent variable (instead of SXP) and the purchasing power-adjusted GDP of the economically active population as the dependent variable he found a minimal difference in statistical significance between the two variables in each regression is under both the original sample of 91 countries and also under the full country sample with growth data for 10 countries added. This was also the case when using the resource intensity variables LAND and PXI70 instead of SXP, though with the ratio of primary exports to total exports became statistically insignificant under the 91-country sample.

Also Davis found that as growth increased, mineral production per worker decreased, irrespective of controlling for initial level of per capita income. He found that this result was significant at the 5% level. This would imply that mineral production alone does not support convergence, in the sense of wealth distribution.

### **7.3 Concluding Comments**

Davis's commendable work yields courageous conclusions, which are disturbing to say the least, since most replications of the Sachs-Warner results are not derived from pure replication of the original SW dataset, though as he explains this is not an easy task. Only through an admittedly trying and near impossible execution of pure replication was Davis able to garner a successfully aligned resource curse outcome in that "countries with intensive primary resource production as of 1970 grew more slowly from 1970 to 1990 than equivalent

economies that did not have large primary resource sectors as of 1970” (Davis, 2012:11). While the concerns of sample and omitted variable bias have been stated before by authors of scientifically and statistically replicated papers, this paper is among others where the replication was pure (Mehlum et al. (2006) and Davis (2011).

On the statistical side Davis found that the very regressions that define the operation of the resource curse were not robust causing him to “...suspect that the paper’s attempt to explain the resource curse via an endogenous growth effect involving shrinking manufactures is more tentative than even SW suggest” (Davis, 2012:13). He also point out that the authors’ tests need only be consistent with the data that they provide, therefore “pure and statistical replication does not test the validity of the econometric specification that SW use” (Davis, 2012:13). Here Davis asserts a moral premise regarding the demarcation of social values in that executing a test consistent with data does not make the method valid, nor does it validate the specification of certain test values.

Understandably, Davis maintains that the results of the pure replication are enough to continue supporting the myriad of research, and thus prescriptive policies, that the original findings spawned. I applaud Davis’s advice that further studies testing “...for data period, data sample, and variable definition effects should also begin with replication so that any observed differences can assuredly be attributed to data differences rather than error in analysis or method” (Davis, 2012:13). In this way a corrective tide might commence so that replicability in the social sciences represents true observations accessed with a measure of ease

once an approach is set forth proclaiming to allow such access. Such is much preferred to scientific truth or fact as the product of a highly restrictive process of distillation, such that even seasoned practitioners are at a loss. Without a doubt Davis's advice is a way forward, but a step in the right direction should not deter from the explicit acknowledgement of the wrong one.

The austerity measures and the war-mongering that follow the resource curse policies are knowingly brutal, but a key conclusion of this thesis is the recognition that the execution of such lethal policies is firstly an intellectual craft. As Davis has pointed out, the econometric outcome that is the 'resource curse' can only be replicated under exacting conditions as to assume perfect information. It may be popular to base a premise for economic warfare on an assumption of perfect information, but it is commonly understood that in reality there is no such thing as perfect information. Rather, in truth there is only a satisfactory amount and diversity of information to justify a path of action. The resource curse exists under very specific conditions, and by the measure of pure replication those conditions are exceptionally hard to come by, and most certainly are far from a natural order. The social sciences are not the physical sciences, for time moves as quickly as the mind changes and fads fall from frenzy, so to make or do something again in exactly the same way is to recondition circumstances in the likeness of that long-gone. In the realm of social sciences, the desirability of a proposed set of circumstances to return will always be a moral argument subject to the power of the power hegemon. Sachs and Warner's *Economic Reform and the Process of Global Integration* is unable to escape this. Basing policy on a

mirage of perfection is surely a grand mistake, but moving forward as though the social and economic environment is not of our own making and therefore can be subject to consciousness-mediated adaptation, is far more lethal a mistake. Not only is the amenable durability of the natural environment for human survival at risk but also it appears humanity is at risk of itself. Accepting the resource curse as real and natural to the end of proceeding with policies that are not actually addressing the problems from the over-simplification of much older human conflict, is a type II error all must be responsible for and willing to engage. Or maybe scholarship is just not that high of a calling. As Donald McCloskey wrote, “The question is how to converse about this culture-bound conversation of humanity.” I am instead, hopeful.

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