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# The Limits of Economic Expertise: Prophets, Engineers, and the State in the History of Development Economics

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## I. Introduction

What role is there for government in promoting the economic well-being of citizens within its national boundaries? This question has vexed social philosophers for centuries. If we assume that political authority derives its legitimacy in part from the satisfaction it affords its subjects, then it follows that a "good" government will adopt policies that will enhance the economic well-being of its citizens. What exactly those policies are has been one of the main subjects of controversy in economics since its founding. Some have contended that the role of government is to be at best a referee, whereas other economists have argued the government must serve as an active player in the economic game.

We identify two theoretical tensions that exist in this debate. First, from Adam Smith onwards a large part of the teachings of economics stressed the mutually beneficial aspects of trade. But in order for the gains from exchange to be had, some level of coercion is postulated by the economist in order to ensure the provision of the basic framework of property and contract. Without the government providing the legal infrastructure, mutual gains from exchange will go unrealized. But to fund government provision of this framework and to empower government to enforce this framework the presumption toward voluntarism must be suspended. How precisely to negotiate this divide is something that economics and political economy wrestles with to this day.

Second, there is an interesting relationship between the epistemic outlook of economics and the disposition of the economist that plays itself out in the history of development economics. To simplify two continuums down to their poles, we can see the discipline of economics has moving between "epistemic modesty" and "epistemic

hubris" in the way it understands its own claims to scientific knowledge (particularly in the sense of prediction and control), and we can envision economists as approaching their work as either "students of society" or "saviors of society." The interaction between the dominant culture of the discipline and the disposition of the economist is portrayed below.

| | Economics has Epistemic Modesty | Economics has Epistemic Hubris |
|---|---|---|
| Economist as Student | Happy Cautionary Prophet | Frustrated Cautionary Prophet |
| Economist as Savior | Frustrated Engineer | Practicing Engineer |

We broadly categorize the results in terms of "cautionary prophets" or "engineers." We use "prophet" in the sense of a person who offers predictive warnings ("if you do x, y will happen") rather than someone who is divinely inspired or the like. By using the adjective "cautionary," we are suggesting that the "economist as prophet" is largely in the business of cautioning us about the limits of what we can and cannot do. The economist as prophet is more likely to utter "Thou Can Not" than "Thou Shalt Not." The economist as engineer, by contrast, is more interested in creating new institutions or alternative methods or patterns of resource allocation than in suggesting limits to what can be done. Notice also that when the disposition of the economist is in conflict with the dominant epistemic standpoint of the discipline, frustration results. We shall have more to say about this below.

In this paper, we will explore the ways in which these interrelationships play out in the debates over the role of the state in promoting economic development. Clearly the state plays a role in promoting the economic development of a nation, but does it do so by

establishing the framework within which economic transactions occur, or by serving as a corrective to the failure of voluntary actions to promote development? That is, how modest or self-confident is economics about what economists can directly contribute to economic development? Douglass North (1981, 24) has written that it is important in these discussion to remember that no matter how predatory and exploitive the state may in fact be, the state is necessary for economic development. Adam Smith provided a classic statement of this when he argued in the notebooks that eventually led to *The Wealth of Nations* that: "Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes and a tolerable administration of justice; all the rest being brought about by the natural course of things." (1776, xliii) This is a call for limited government, but still an effectively organized government that is capable of defining property rights and enforcing contracts. On the other hand, the mercantilist writers before Smith and the German protectionist economists as well as the Keynesian economists after Smith argued vigorously that the state cannot remain on the sidelines and referee the economic game. The state is in a unique position to serve as a corrective to social ills and thus plays a definite and active role in promoting the wealth of a nation. Intertwined in the history of these debates over the role of the state in political economy are questions of the nature of economic expertise, the epistemic assumptions of economics, and the disposition of the economist.



**II. From Moral Philosophy to Science and Back Again?**

Before we focus more precisely on the history of development economics, we need a broad, if brief, overview of economics' self-understanding of its own epistemic

standpoint. Restricting ourselves to the last 350 year or so, we can see an oscillation between epistemic modesty and epistemic hubris about the scientific status of economics and its implications for economic policy. In Smith we find repeated cautions about the limits of the expertise of the moral philosopher, particularly in the light of what the state can do with respect to economic policy and the differences between the knowledge of the economist and the knowledge of the economic actor. Young (2005, this volume, pp. 2-3) distinguishes between two forms of knowledge present in Smith – "contextual" and "system" knowledge. The former refers to the knowledge actors use, based on their experience, to make their day-to-day decisions of "ordinary life." The latter, by contrast, is what the philosopher produces, and in so doing, "reveals what is hidden to agents in ordinary life" (3). Young's distinction is also seen in Smith's famous "chessboard" passage from *The Theory of Moral Sentiments* (1982: 234), where he distinguishes between the "principle of motion" of individual actors and the systemic rules laid down by the legislature. Of particular importance in that passage is Smith's discussion of the "arrogance" of those who would seek to arrange actors as if they were pieces on a chessboard. The whole notion of the invisible hand, particularly as Smith understood it to be linked with the divine, is yet another example of his call for philosophical humility before greater social forces.

During the early 19th century, economics remained largely under the sway of relatively modest views of its own position among the sciences. In the decades to follow, two developments began to push at the prevailing methodological self-conception. The first of those developments, to be explored in more detail below, was an emphasis on the importance of the "folk" knowledge of the actor and an increased skepticism about the

knowledge of the expert. This argument was linked with the historical school and some of the protectionist thinkers in Germany and the United States, such as List and Carey. They attacked the then-current orthodoxy from one side, arguing that it was, in some sense of the term, "too" scientific because it paid insufficient attention to the way in which actors saw the world.

The second development was the rise of socialist thought, particularly Marxism, which began to criticize classical orthodoxy for, in some sense of the term, not being scientific enough. Marx's laws of history represented, in his view, a more scientific approach to understanding the developmental path of industrial economies than did the classical worldview. Although Marxism suggested humility in the face of these larger historical laws, the culmination of that historical process would be a world where humans used their knowledge of social forces to make history rather than be subject to it. The Marxian future where production would be directed "in accordance with a settled plan" would be a social order rationally constructed according to our knowledge of the laws or production (Marx 1906: 92). Engels (1972: 68-70) captured this nicely by analogizing capitalism to lightning and socialism to electricity under human control. Just as a scientific understanding of nature had enabled us to take powerful natural forces and subject them to human control, so could a scientific understanding of the social world, led perhaps by economics, enable us to use rationality to control the forces of production.

Despite their attempts to change the basic outlook of the discipline, both the historicists and the Marxists remained part of heterodoxy. Nonetheless, they, especially Marxism, did have their effects. At the same time, the disposition of many coming to study economics was changing as well. Given the events surrounding the Industrial

Revolution, including factory conditions and changes in the distribution of wealth and income, more people came to economics predisposed to be Saviors moreso than Students.[1] Combined with the Progressive movement in the United States and similar movements elsewhere in the world, this move toward the savior approach put increasing pressure on the discipline of economics to shift its self-understanding.

Into the late 19th and early 20th century, economics continued to borrow from the natural sciences with increasing frequency. As Mirowski's (1989) work demonstrates, the importation of natural science concepts profoundly affected the development of neoclassical economics. The marriage of the language of equilibrium and "forces" with the rise of positivist philosophy in the early 20th century began to increase level of intellectual self-confidence among economists. With a philosophical outlook that emphasized prediction and control, and a set of theoretical tools that emphasized modeling and empirical testing, neoclassical economics looked increasingly like an extension of engineering. The belief in the real-world applicability of general equilibrium models reached its peak in the 1930s and 1940s in the literature on planning and market socialism. The growing interaction between economists, game theorists, and the military-industrial complex further cemented the view of economic problems as static, allocative, quasi-engineering problems. Books like Lerner's (1946) *The Econmics of Control* were examples of this vision of economics at work.

For the young person approaching economics with the savior disposition, the newfound scientific self-confidence of economics presented a perfect match. Economics became an opportunity to put one's desire to save the world to work by becoming a practicing social engineer. For those less inclined to be the savior, the state of the

discipline became a source of frustration. Although the "student" is always inclined to play the role of cautionary prophet, that role is largely reduced to irrelevance when the dominant discourse of the discipline is closer to that of the engineer. During the middle of the 20th century, economics was too busy imagining what it could do and had little time for those who kept warning that it could not be done. Many heterodox economists of the period, mostly those skeptical of significant state intervention, but even some Marxists as well, found themselves in the role of frustrated cautionary prophet, believing that the scientific self-confidence was really intellectual hubris. In the face of the triumph of science, views akin to those of the moral philosophers of 150 years earlier were seen as mere metaphysics.

In the last 30 years, however, the tide has turned somewhat. For a variety of reasons, including the real-world failures of policies based on the engineering approach, economics has swung away from the most extreme sorts of hubris found earlier in the 20th century. Advances in philosophy and our understanding of the human mind have challenged the stronger claims of positivism and rationalism, and led to renewed appreciation for the role of social institutions in guiding fallible humans of bounded or limited rationality through a world of complexity and uncertainty. The increased emphasis on the rhetoric of economics and the history of the discipline, and not just the history of ideas, have all helped rein in the unrealistic ambitions of the early 20th century. One interesting twist is that the engineering mentality remains in form but not function in the increasing complexity of mathematical economics. The result is that those who come to the discipline as Saviors find themselves frustrated by the arid policy-less world of supposedly "pure" economics, yet also perhaps frustrated by the swing back toward

epistemic modesty. In addition, the Student is heartened, perhaps, by the newfound modesty, as she sees the role of cautionary prophet as somewhat more available. However, the institutional structures of the discipline continue to reward disproportionately those with the engineering skills, even if they do not perform the engineering functions. The result is frustration of one sort or another for all but those who see beauty inherent in the tools.

In the rest of the paper, we overlay this story on the history the role of the state in development economics in order to explain the twists and turns it has taken in trying to explain why some nations are rich and others are not.

**III. The Modest Economist and the Limited State**

The history of the role of the state in economic thought begins with the earliest contributors to modern economic thought. The liberal moral philosophers of the 18th century, particularly those associated with the Scottish Enlightenment, saw a clear connection between the development of trade and commerce and the development of the various measures of "civilization." In their view, the extension of trade was the result of limiting the state's role in attempting to be the direct source of economic development, and restricting that role to providing the institutional infrastructure that facilitates trade. In turn, this view of the state implied a much more modest role for the economist/moral philosopher in contributing to the wealth of nations.

The civilizing effect of trade could be seen at three levels. First, the spread of trade created incentives for individuals to interact through persuasion via mutual benefit, rather than through zero- or negative-sum games of force or deception. In doing so, trade

engendered peaceful relations among individuals by creating interdependencies through the division of labor and exchange. Second, trade promoted orderly and prosperous societies through the invisible hand/spontaneous ordering processes of the market. Not only did it create more civilized relationships among individuals, it created more civilized social orders. Finally, trade promoted more civilized relationships among nations through the extension of the Ricardian Law to international trade: nations that kept barriers to international trade low developed cooperative and interdependent relationships with other nations, reducing the net benefits, and thus the frequency, of armed conflict. This section will explore each of these arguments in turn.

Adam Smith recognized early in *The Wealth of Nations* that market economies had civilizing effects on individuals in several ways. The transition from older forms of economic organization to markets entailed a movement from socieites that were frequently coordinated by face-to-face interaction, to ones that required new processes of social coordination that could work among anonymous actors. As Smith (1776: 18) put it in the well-known passage near the start of *The Wealth of Nations*:

> In civilized society [man] stands at all times in need of the co-operation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons.

Smith argues that although we could try to gain this cooperation by appealing directly to the benevolence of others, that is unlikely to work where they have no personal connection with us that would lead them to cooperate. We might get the more generalized sympathy of the impartial spectator, but not the specific, concrete sorts of cooperation that economic processes depend on. Thus, says Smith, we must find a way

to appeal to others' self-love, and the famous passage about the butcher, baker, and brewer follows in turn.

In addition to the ways in which Smith et. al. argued that commerce demonstrated that direct action by the state was not necessary for encouraging cooperative behavior among individuals, it was also clear that such action was not necessary for the generation of broader notions of social order. The invisible hand of the Scottish Enlightenment helps to explain how a nation's internal trade could generate orderly, but unplanned, institutions and outcomes. The thrust of the Smithian system was that the "system of natural liberty" would generate the wealth of nations, and not the state's intentional attempts to create national wealth. However one reads the metaphor of the invisible hand, its very invisibility invokes processes other than the very visible activities of the state in generating economic development.

This increase in commerce, which was mainly focused on the towns, had other salutary effects on the broader social order. As Smith argues in the chapter "How the Commerce of the Towns Contributed to the Improvement of the Country," there were three ways that town-based commerce generated beneficial unintended consequences for the country areas. The first two were more narrowly economic, but the third, which he attributes (433) to Hume, was the one he thought was most important:

> [C]ommerce and manufactures gradually introduced order and good government, and with them, the liberty and security of individuals, among the inhabitants of the country, who had before lived almost in a continual state of war with their neighbors, and of service dependency upon their superiors.

This argument is a nice condensation of the views of the Scots with respect to the necessary and unnecessary roles of the state. Smith argues here that it is commerce, which clearly in some sense precedes the state, that generates the "demand" for political

reform and good government, and the spread of civilization to the countryside. Trade is, for Smith, a natural human proclivity, but one that will generate the best consequences when property and liberty are secure. An increased volume of trade leads to greater benefits from the state being both limited and well-respected.

The third way in which the state's forebearance was believed to generate civilizing effects was through international trade. The idea that specialization and the division of labor led to salutary effects within the nation was clear in Smith's mind. His linking that division of labor to the "extent of the market" provided a principle by which the ongoing evolution and growth of economies could be rendered intelligible. Both Say and Ricardo extended that insight in important ways, with Say's Law explaining how production was the source of demand and Ricardo using the concept of comparative advantage to extend the Smithian insight to trade among nations. Commerce could generate the very same interdependencies among nations as it did among individuals. In the case of nations, these interdependencies would lead to a reduction in the level of conflict among them.

For the early political economists, the role of the state was largely limited to the protection of person and property, as they argued that unhampered trade would generate the beneficial effects that some believed required an activist state. The state's job was to provide the legal-political infrastructure that made commerce possible. Like the gardner who cultivates an environment in which plants can thrive, the state was seen, largely, as providing the institutions that individuals required so that the gains from trade would best be reaped. Smith, it could be argued, saw himself as explaining the economic and social forces that were actually at work in the social world of his time, and in identifying them,

he offered a vision of humility for the ability of humans to consciously manipulate those economic processes. The institutional infrastructure was the key to the wealth of nations as it would direct our passions into channels that generated public benefits, if only unintentionally.

For Smith and his contemporaries, the claims of economics were modest ones. It made no claim to being able to remake the world; it could only offer some very general advice about what needed to be done, but it could say a great deal about what not to do. The Student would find this a congenial atmosphere and would happily play the role of cautionary prophet. It is worth noting that in the early years of the Enlightenment, the role of cautionary prophet was more radical than conservative, given that Smith's work was an attempt to bring reason to the study of society. The cutting edge of knowledge was, in fact, the ability to talk about how reason demonstrated, in Hume's words, the limits to reason. We are often accustomed to seeing the cautionary prophet as a "conservative" voice, but in the context of Smith's time it was quite the opposite. Not surprisingly, this modest role for economics and the economist did not sit well with those who approached economics as Saviors. They would have their turn in the next stage of development economics.

**IV. Protectionism and National Identity: The Savior as Frustrated Engineer**

The argument for unhampered trade, particularly among nations, put forward by Smith et. al. was in response to a number of earlier arguments that we now broadly categorize under the name "mercantilism." There remains much debate as to whether the mercantilism of the pre-Smithian period can be understood as a coherent theoretical

system. In his overview of mercantilist thought, Magnusson (2003: 56) argues that although there was no cohesive doctrine or set of policy proposals, what the various pre-Smithian British mercantilist thinkers "mainly shared was a preoccupation with the question of how a nation could become rich and thus also achieve greater national power and glory." For most mercantilists, doing so required that the state manage trade, especially with the goal of generating a favorable balance of trade. The response from the classical economists, as we have seen, was to argue that national wealth was better understood in terms of how goods and services were best delivered to the population, and that markets and trade were the best means to that end.

At much the same time as these pro-market arguments were being developed in Great Britain and in areas of the continent, another school of mercantilist thought was emerging in the US and in Germany.[2] Like the earlier mercantilists, these thinkers did not always form a coherent school of thought. However, the most full-fledged statement of the general thrust of their ideas came from the German Friedrich List in his *Das Nationale System der Politischen Okonomie* in 1846. List's ideas, and those of similar thinkers in the US (Alexander Hamilton and Henry Carey, for example) are often categorized as "national economics," as they, like their British predecessors, were focused on the development of the nation's wealth and power. List's work is also sometimes linked to the German Historical School, as his central idea was that the economic theory and policy that was appropriate to a particular country depended on where that country was in a series of stages of development. By making economic theory historically-dependent, List fits with the German Historicists, and by arguing that free

trade was sometimes not the best policy option, List followed in the tradition of the pre-Smithian mercantilists.

At the time List was writing, the highly decentralized nature of the multiple political entities that comprised Germany led to a number of tariffs among them that limited the ablity for intra-national trading. Combined with very low to non-existent import tariffs, the various German states were a lucrative market for foreign sellers, especially the British. With foreign goods making up a relatively large part of the economy, the various German states wanted some way to rebuild their national industry and national identity. List's work landed nicely into this historical environment. As we shall argue later, much of List's work, and the circumstances that produced its reception, foreshadow similar ideas and historical contexts in the emergence of approaches to economic development in the 20th century, as Magnusson (2003: 58-59) notes as well.

List argued that economic development was best understood as a series of stages of maturation, from "barbaric" to "pastoral" to "agricultural" to "agricultural-manufacturing" to "agricultural-manufacturing-commercial." Specifically, List claimed nations could pass from the first to third stage making use of free trade, but that some form of protectionism was necessary to reach the final stage, when once again, free trade was most desirable. The central theoretical premise was that the very unevenness of world economic development precluded free trade from being desirable in all circumstances. When one country moved to the later developmental stages, its ability to export cheaper manufactured goods to countries in earlier stages would preclude the development of their own manufacturing industries, preventing the less developed country from moving to the higher stages of development. The implication is that nations

should adopt protectionist strategies, in particular what today would be called "infant industry" protections, to make sure that internal industries have sufficient time to develop without the competition from cheaper imports.

The nationalist aspect of List's approach demands some further attention. Like others in the early 19th century (e.g., Carlyle, as Levy [2002] demonstrates), List objected to the "cosmopolitanism" of the classical economists. Where the focus for some critics was on the implication that free trade would overthrow long-standing hierarchies of race or gender, for List the concern was with the cross-national application of economic theory, and its focus on the individual rather than the nation. As his stages of development approach indicates, one at the very least had to recognize that different theories might apply to different countries. In addition, List was concerned with the effects of free trade on the nation as a whole. For example, if such trade meant that industries or people were displaced, it should be seen as harmful. He also claimed that nations should attempt to husband "productive power" rather than wealth itself. In an interesting turn on the older mercantilist tradition, he saw the real national goal not as the collection of money, but the productive powers of industry. And unlike the charge sometimes levelled at the older mercantilists, he understood that productive power was not the same as wealth, and explicitly preferred the power to the wealth.

One element that List brought to his version of the mercantilist view is that nationalism and national identity were part of what was at stake in economic development. Writing in Germany of the early to mid 19th century, it is no surprise that he would see nation building as central to his theoretical stance. Much of the concern with the infant-industry argument is that free trade makes the development of a nation's

economy dependent on forces that it cannot control. When world prices and free trade guide the direction of economic development, nations cannot control whether and how their own productive powers evolve, thus they cannot determine their own national identity and destiny. In some ways, this is a pre-cursor of Marxian arguments about the hidden nature of capitalist laws and the need to take control over what has previously controlled us. In the 20th century, the building of national identity and the elements of Marxism would come together in the economic development policies of the post-colonial world.

Three aspects of List's framework are noteworthy for the broader story we are telling. The first is that this view assumes that industrialization is central to economic development. List was explicit in believing that rapid and early industrialization was desirable even if it meant that the nation was worse off temporarily. As we shall see later, this claim was at the center of debates in both the emergence of the Soviet model in the 1920s and in the emergence of post-war development economics. The second aspect is that it focuses on the nation as the unit of analysis. By starting with the stage of development that the nation is in and asking what is necessary for enhancing the nation's industrial strength, List's approach can avoid asking whether the policies it recommends actually work to the benefit of most or many individuals. Where it does ask that question, it answers it by putting the interests of the "nation" over those of the individual. Finally, List's approach is a clear pre-cursor of the "import substitution" policies that dominated much of development economics in the mid-20th century.

The views associated with List and the Historical School redefined the role that economists, or those knowledgeable about economics, might play with respect to the

broader society. Economists disposed to be Saviors could be make a claim to understanding the "real" processes at work and staking a further claim to having sufficient knowledge to design policies that would produce both better economic outcomes and other goals, such as enhanced national identity. Though not as comprehensively as would be seen in the 20th century, List and the Historicists gave the Savior some scope to become an engineer. Rather than humility in the face of social processes that could be understood but not controlled, this critique of the Smithian paradigm suggested that economists should have confidence that they could be key contributors to the activist work of the state. Later in the 19th century, this confidence would reach a higher plateau in the role played by members of the later German Historical School, as the so-called "Socialists of the Chair." Seeing themselves as the intellectual defenders of those in power, they came even closer to the engineer than the cautionary prophet.

We also wish to suggest that the relationship between policy and the economist's role can be cumulative. That is, changes in the dominant perception of policy can alter economists' perception of their own role in society. We do not mean to suggest that narrow self-interest in access to power explains the changes in ideas, rather it is more likely the other way around: changes in beliefs about "how the world works" will change economists' self-perception. In addition, once that self-perception begins to change, and economists both see themselves and are treated as Saviors, it can in turn affect they ways in which they attempt to understand the world. If the Savior can become an engineer and appear to have success in doing so, more potential Saviors will be attracted to economics. As the Saviors become engineers, they will look for ways of understanding the world that

play to the strengths of the Savior-cum-engineer. They will see the world in engineering terms. There is, perhaps, a kind of lock-in here where self-perceptions, actual access to power, and the human capital of economists are mutually reinforcing in ways that make alternative visions appear to have very high transition costs.

Nonetheless, by the mid-19th century, the Saviors of the List/Historical School remained frustrated engineers as the dominant self-understanding of the discipline stayed largely in the same camp as Smith's time. Put somewhat differently, being the Savior at this time required that one be heterodox, thus it largely meant frustration in terms of influencing both the discipline and policy. Only when the discipline changed in ways that enabled the Savior-cum-engineer to be part of orthodoxy would that frustration end.

## V. The Rise of the Engineers in the 20th Century

Despite the potential for such an intellectual lock-in, the late 19th century and early 20th century saw both the rise of the Savior and the continued strength of the Student. With respect to the latter, Max Weber emerged as one of the leading social scientists in the world. Of his many scholarly contributions, the one his name is most identified with is his claim about the protestant work ethic and capitalist development. In *The Protestant Ethic and the Spirit of Capitalism*, Weber sought to explain how religious beliefs impact economic organization and performance. Whether one agrees with him or not, one must agree with the importance of the way Weber addressed the question of the wealth and poverty of nations. Too often in the history of political economy thinkers sought to explain the difference between nations by reference to natural resource endowment. But Weber sought to blend an analysis of material resources with non-

economic factors to address the question of why industrial capitalism appeared in the West, and specifically north-western Europe, and not in China, even though, only a few centuries earlier, China was by far richer and more technologically advanced than Europe. Weber (1904-5) did not provide the mono-causal answer to that question that his critics often accuse him of. Protestantism is only one of the differentiating characteristics in his explanation. Protestantism provided the ethical or moral justification for practices conducive to economic development, but it was not the source of development.[3] In his *General Economic History* (1927), Weber contrasted the legal structure of the Chinese, which was not conducive to the development of capitalism, with the Western legal structure, which was conducive to capitalist development. Chinese law, according to Weber, was based on spiritual and magical practices whereas the Western legal tradition was inherited and evolved out of the formal legal rules of Judaism and Roman law. The Western legal tradition relied on a logical mode of juristic reasoning, instead of discretionary, ritualistic, religious, or magical considerations found in the Chinese legal system.

The main reason that the legal system mattered for economic development is that is enabled the calculative capabilities of individuals to be used in making decisions about enterprise activities. Because the legal system possessed some certainty in its rules, individuals could engage in rational calculation about the consequences of decisions. Another major factor in Weber's analysis is a fixed tax system, rather than an arbitrary one, and the reason why this fiscal arrangement is vital to economic growth is the same as that for legal certainty; it encourages a longer term horizon among decision makers and it provides an incentive for responsible decision makers. We will come back to this

explanation when we get to the section on the institutional revolution in development economics. But before we go in that direction we must explore the consequences that followed for economic theory and policy from not following in the Weberian path of focusing on the comparative historical political economy of development. From the time of Adam Smith to Max Weber it was common practice to distinguish between the capitalist civilized world, and the non-capitalist barbaric world. The idea of an advanced civilized world that was not capitalistic in orientation was simply a contradiction. Weber's focus on institutions harkened back to the Smithian vision, and Weber's recognition of the power of economic calculation under decentralized decision-making suggested a Smithian humility in the economist's own role in second-guessing the products of undesigned social processes.

The Smith-Weber distinctions among countries would fade for a variety of reasons with the rise of the engineering mentality in the 20th century. Questions relating to how the institutional infrastructure of a society was conducive to growth or not were replaced with those dealing with what the appropriate policy mix to be implemented by the government to achieve economic development. As we shall see, this, not surprisingly, changed the role played by economists in the process. Poor countries had to catch-up to the rich countries, and the process of capital accumulation and capitalist development that occurred in the West was simply too slow. The advantage of backwardness was that concerted effort by the state could speed the process of economic development. (see Gerschenkron 1962) Three developments in 20th century thought and history worked to undermine the earlier emphasize on the institutional infrastructure of society and how that affected economic performance:

1. formalism and positivism in economics;
2. Bolshevik revolution and the rise of socialism; and
3. the Keynesian revolution in macroeconomics and the rise of international public policy institutions grounded in the Keynesian revolution.

Each of these three shifted attention away from the appropriate institutional structure of *good governance* to the necessary *activities* that government must undertake – a move from designing rules to direct action. This is turn facilitated the emerging shift from cautionary prophet to engineer, and the corresponding attraction of the Savior to economics.

Formalism directed economists' attention away from how the institutional structure of society directed actors to behave in directions more or less conducive to economic development. Instead, optimization against given constraints, the classic technique of the engineer, became the focus of intellectual attention. Positivism also contributed in the shift away from institutions by de-legitimizing the study of ideology as an important component in social theory. Political, legal, and economic institutions are sustained on the basis of ideological systems of thought. Out of fear of ideological campaigns such as fascism, positivism sought to eliminate all non-testable propositions from economic science.

The combination of the formalistic preoccupation with equilibrium properties and the positivistic disregard for ideas meant that the sort of questions that dominated the discussion of the wealth and poverty of nations from Adam Smith to Max Weber were push aside in the field of political economy. In fact political economy was pushed aside in favor of the idea of scientific economics. The natural tendency of neoclassical

development economics was to ignore political, legal and economic institutions and instead search for empirical measures of development. The question of the institutional infrastructure of development was considered to be unscientific. Measurement equaled science, whereas discussion of property rights, rule of law, constitutional constraints, and legitimating belief systems were dismissed as pre-scientific musing by worldly philosophers. The triumph of the engineer was at hand.

The Keynesian mind-set and analytical tool-kit was suited to fill the void once the classical and Weberian treatment of the wealth and poverty of nations was pushed aside. First, Keynesian theory re-enforced the general post-Great Depression intellectual climate of opinion that capitalism was inherently unstable. Aggregate demand failure periodically results from the chaotic and irrational decisions of investors. Free market competition could not be relied upon to self-correct for the systemic consequences of the errors committed by private actors. *Laissez-faire* was dead as a legitimating ideology. Second, the aggregate techniques developed in the Keynesian revolution provided economists with a way to measure economic development. Economic development became synonymous with measured growth in per capita income. Obviously the equating of economic development with the emerging neoclassical theory of economic growth had profound consequences for the theoretical foundations of economic development. Third, as the Keynesian hegemony emerged after WWII, various international institutions were formed to carry out public policy grounded in the Keynesian vision and analysis of the role of government in economic development.

The effect of these philosophical and methodological changes on the role of the economist were profound. With the claim to scientific status at their fingertips,

economists could move from cautionary prophet to engineer because they now had the tools of objective science to guide policy in ways that did not appear to invoke ideology. Moreover, with the philosophical shifts reflected by positivism and formalism, the engineer not only had the tools but the philosophical blessing to pursue his craft. The shift in focus from the institutional framework to the levers of policy, combined with the rise of formalist and scientistic modes of thought, fed very powerfully into the state's own interest in having such policy tools at *its* fingertips. For obvious reasons, the state's interests are conservative here, in that it does not wish to challenge the prevailing set of institutions and would prefer to work within that set to affect policy. This coincidence of interests made for another powerful form of intellectual lock-in that reinforced the role of economist as Savior, though this time disguised, through the language of science and objectivity, as a "mere" Student.

Although we will turn to the Soviet case in the next section, it is important to mention here how that experience influenced thought precisely at the moment of positivist and Keynesian ascendancy. The perceived success of Soviet planning in modernizing a peasant society into an industrial and military power demonstrated that an alternative to the capitalist path to modernity was indeed viable, and that the Savior-as-engineer was a model to emulate. Even if the Soviet case was marred by political tyranny in the 1920s and 1930s, surely a more democratic society could accomplish the same societal transformation without the abuse to human rights.

It is important to acknowledge that the promise of Soviet planning in terms of economic development was first accepted in the 1920s prior to full knowledge of the political repression of the purges and collectivization. At the time the Western

democracies were trapped in the crisis of the Great Depression, and the Soviet system seemed to avoid that problem through rational central planning of their economy. The Soviet system promised to be more economically efficient and more socially just. After knowledge of the political purges and the death toll of collectivization became common, the argument switched from one of Soviet promise to one of merging socialist planning with the democratic institutions of the West. Soviet political institutions lost intellectual legitimacy, but Soviet economic policies continued to hold sway over the hearts and minds of economic reformers. These reformers would occupy the key policy positions throughout the Western democracies and international agencies entrusted with world economic development after WWII.

By the end of WWII, the distinction between capitalist and non-capitalist world had given way to a distinction between first-world (capitalist developed), second-world (socialist developed) and third-world (under-developed) countries. An intellectual and geo-political battle began between the first- and second-world countries to export policy advice to third-world countries on the way to pursue the path to modernity. It is our contention that the intellectual and historical evidence demonstrates that policy advice provided to the underdeveloped world by the capitalist nations as well as the socialist ones was almost identical and reflected the intellectual transformation of the political economy of development economics that we have just outlined, in addition to giving economists a starring role as Saviors of the third-world as "practicing engineers." Both first-world and second-world economists jettisoned the older focus on the institutional infrastructure in society, and emphasized a proactive role of government (and its economists) in engineering the path of economic development.

**VI. The Soviet Model and the Collapse of Development Planning**

When the Bolsheviks rose to power in 1917, Lenin and his colleagues sought to construct a communist economy. Roberts (1971) and Boettke (1990) provide evidence of the ideological motivation of the policies of comprehensive centralized planning that were followed between 1917 and 1921. However, those policies met with a refractory reality that forced the Bolshevik regime to change course with the New Economic Policy (1921-28). The ideological tension that existed over NEP led to a major intellectual debate among the Bolshevik ruling elite on the nature of socialism and the path of development. The quality of the economic debate was sophisticated as far as politicized discussions of economic policy permit. Nikolai Bukharin argued for a market-based policy that served socialist goals by permitting accumulation and retaining planning control over the 'commanding heights' so that peasant Russia would be transformed under a balanced growth policy into an industrialized society at which time full-blown socialism would once again be pursued to its logical end of the eradication of the market mechanism. Lev Shanin argued that Russia had a comparative advantage in agricultural production and thus Russia should pursue a policy of agricultural exportation and capital importation (unbalanced growth policy) in order to industrialize the economy to prepare for full-blown socialism. Evgeny Preobrazhensky, in contrast to both Bukharin and Shanin, never retreated from the communist policies that were adopted during the period of 1917-1921. The first act of any socialist state, Preobrazhensky argued, was the nationalization of industry and the path from capitalism to socialism will be planned and follow a rational strategy.

On an academic level these alternative positions were developed in the Soviet journal, *The Planned Economy*.[4] Alec Nove (1969: 129) suggests that it was in these pages that "Development economics could be said to have been born here." Nove makes an interesting point in intellectual history. The emphasis in post-WWII development economics on "growth" and "long-range" planning of an economy follows directly from Soviet discussions in the 1920s. Evsey Domar (1957: 10) has remarked that his study of the debates in *The Planned Economy* were "a valuable source of ideas" in the development of the Harrod-Domar model of economic growth. However, Domar's reconstruction of the Soviet debates minimizes the intellectual influence of Karl Marx and plays up the anticipation of Keynesian ideas. Although the Keynesian interpretation possesses some appeal because of the shared engineering mentality, it does not do justice to the Marxian background of the arguments in the Soviet Industrialization Debate. For the purposes of this paper, however, we are not concerned with getting the interpretation of the Soviet Industrialization Debate right. Instead our focus is on simply pointing out the link between the debate and the subsequent development of post-WWII development economics.

The belief that emerged out of the Soviet experience and the rise of Keynesianism was that development economics was synonymous with macroeconomic growth, and the public policy implications were that government could design, control and engineer economic growth through a variety of crucial interventions. Underdevelopment was a consequence of weak investment, lack of technology, and shortfalls in the stock of human capital. Government policies were to serve as correctives to the failures of market driven development, and as an engine of economic growth and development in their own right.

A fixation on industrialization as the path and measure of development was central to the development planning process, and this was often times complemented by the adoption of import-substitution policies that saw protectionism as a means to the end of statistically-measured growth.

As we have shown earlier, this line of thought was hardly original in its broad contours, which recall the nationalism and protectionism of List and other thinkers of the 19th century. The difference this time was the additional support garnered from the misinterpretation of the Soviet experience and the theoretical framework of Keynesianism that had begun to dominate economic thought, and economists' ability to ground their role as Savior in the language of science and the tools of engineering. One reason for the confidence of economists was that the arguments for development planning made during the 20th century grew out of the then-mainstream of economic thinking, in contrast to the heterodoxy of their predecessors a century before. As a result, these ideas had a practical influence on real world economies that the economic nationalism of List et. al. never really achieved. The changes in the methodological and philosophical winds in the early 20th century made the later versions of econmic nationalism into orthodoxy and turned frustrated engineers into practicing ones.

One of the more fascinating puzzles of the middle of the 20th century is the disjunction between generally accepted beliefs about the success of the industrialization of the Soviet economy and the reality of its effects on the lives of the citizenry. After Stalin's consolidation of power, he moved to rapidly industrialize the Soviet economy, believing that it was the path to both the growth needed to implement socialism and the power needed to counter-balance the West. The five-year planning model involved

transfers of wealth from agriculture to industry via the forced collectivization of the former and state planning of the latter. By many of the accepted measures, this attempt was successful. Reported growth rates in per capita GDP and other macroeconomic variables, as well as the build up of military resources, pushed the Soviet Union into the ranks of a world power. The strategy of forced industrialization appeared to be the path to economic development and political influence.

In retrospect, many of the beliefs about the strength of the Soviet economy turned out to be illusory. This illusion came in three forms. First, the data produced by the Soviets themselves were systematically overstated, both intentionally for propaganda purposes and through mismeasurement and miscommunication. Second, the estimates made by CIA economists also systematically overstated the health of the Soviet economy: "In 1986, for example, the CIA estimated that Soviet per capita GNP was about 49 percent of that in the United States. The revised estimate now put that figure at about 25 percent." (Boettke 1994: 7)

The third source of illusion was perhaps the most important. Whatever the truth of the macroeconomic variables, day-to-day life for the Soviet citizenry did not match the picture they painted. The reality of bread lines, backward and dysfunctional technology, inadequate medical care, and dangerous employment conditions was more like that of a third-world country than a developed world power. Various measures of well-being demonstrated the ways in with the Soviet citizenry lagged behind the West to a degree that far exceeded the differences in conventional measures of economic success. Comparative data on consumer items such as passenger cars and telephones show the Soviet economies, and Soviet-style economies of Eastern Europe, as lagging significantly

behind the west. Per capita food consumption and a variety of health indicators, including infant mortality, show similar trends (Boettke 1993: 35-6). The measured industrial output did not translate into better opportunities and outcomes for most economic actors, and the investments in military equipment did not translate into effective military power, as the failure of Soviet technology in the first Gulf War demonstrated. The emergence of economic doctrines that saw C, I, and G, or their sum, as measures of economic development precluded analysts from asking important questions about the *composition* of those variables or whether they translated into meaningful gains in living standards for those affected by them. They also were both the cause and effect of the Savior-cum-engineer approach to economics.

The problem with the equation of statistical aggregates that measure "growth" with the more general notion of "development" is that, paraphrasing a remark of Hayek's in a different but not unrelated context, the aggregates "conceal the most fundamental mechanisms of change" (1995 [1931]: 128). In the Smithian tradition, economic development was seen as the progressive extension of the division of labor (and the extent of the market), along with the emergence of institutional arrangements that would both facilitate that evolution and respond to the new practices and structures that it produced. For example, the focus on aggregates made it difficult to see the way in which investment expenditures were or were not producing a structure of capital that was sustainable and that could actually produce consumer goods that added to well-being, not mention whether the existing political and economic institutions were capable of generating a sustainable capital structure. The generation of such a structure was

emphatically not an engineering problem of maximizing K against constraints, as Hayek attempted to argue in that same response to Keynes.

In addition, in many places in the developing world, the aggregates concealed the fact that many of the resources that were counted in official GDP figures were actually diverted to the more narrow well-being of the political class. The classic picture of the gleaming third-world capital surrounded by extreme poverty is symbolic of that concern. The understanding of development that pervaded the 20th century could easily be blind to those differentials and their underpinnings in the particular political and economic institutions in these countries. These concerns were especially noteworthy with respect to the role of aid from the West. Even where aid made up a very small portion of GDP, it was often a substantial portion of government revenues, which in turn frequently benefitted government officials rather than those in need of assistance (Osterfeld 1992: 150-51). All of this emphasis on measurement and aggregates distracted attention from the institutional concerns of the Smithian vision.

The data on the effects of development planning in the non-Soviet world bear out these concerns. In India, over forty years of development planning leading up to the early 90s had left India's per capita income at around $300, with approximately 40 percent of the population living below the poverty line. Adjusting for changes in population, that meant an increase in the absolute number of Indians below the poverty line during the peak decades of development planning (Kamath 1994: 91). The story in Africa was similar, with the continent's average annual GNP growth rate from 1965 to 1986 averaging 0.9%. Put against rising population, this meant a decline in per capita GNP of about 14.6 percent for sub-Saharan Africa. In addition, food production per

person “fell by 7 percent in the 1960s, 15 percent in the 1970s, and continued to deteriorate in the 1980s” (Ayittey 1994: 155). As Ayittey also notes, the grandoise plans of African governments were expected to be paid for by “huge surpluses in the rural sector” (162). This is a good example of the borrowing of the failed Soviet model by post-colonial planners.

A story that remains untold in the evolution of theories of economic development is the role of Western universities in serving as the intellectual conduit from the Soviet model and early Keynesian models to development planning in the third world. Many of the post-colonial leaders, as well as the civil servants who manned the planning bureaucracy, were educated in Western universities during the 1950s and 60s when Keynesianism and the related growth models were the mainstream of economic thinking on these issues. Some post-colonial leaders were also trained in the Marxist tradition, which was also reasonable alive and well in the universities, but even those who pursued advanced degrees in economics at top-flight universities came away with a set of beliefs about what produced development that included doctrines that would later be shown to be, at the very least, inadequate, and more often, destructive. It was through these institutions that the economist as Savior moved from the first world to the third world. Where Western doctrines were translated into guidance for development in the South and East, the economist, with the engineering tools of science at hand, was easily seen as the Savior. The ways in which many students from the third world of that era, and still today, imagine themselves using their Western education to return home and solve the problems of their native land reflect this marriage of activist government and the economist as Savior-cum-engineer. The intellectual environment and economics’ self-

understanding enabled these engineers to practice their trade upon their home countries. The Western universities continue to be an intellectual conduit for policy-making in the third world, but as economic thought has evolved on these questions, Western-trained economists are now more critical of planning-based approaches and have turned more attention to the institutional environment.

**VII. A Return to Humility?**

At the close of the 20th century, a coincidence of three empirical facts of political economy world-wide forced economists and public policy-makers to rethink the underlying engineering vision of economic policy. The three empirical facts were the (a) breakdown of the Keynesian consensus on macroeconomic policy (see Buchanan and Wagner 1977), (b) the collapse of state communism in East and Central Europe (see Boettke 1993), and (c) the frustration with foreign aid programs in LDCs (see Easterly 2001). At the same time that these facts came to be increasingly recognized by scholars, policy-makers and the public, economic scholarship had undergone a transformation. While new Keynesian economics, information economics, and game theory came to be part of the tool-kit of modern economics, so did rational expectations theory and New Classical macroeconomics, the Chicago school of law and economics, the Chicago New Learning in industrial organization, the Washington and UCLA schools of property rights economics, Schumpeterian evolutionary economics, the market process of economics of the Austrians as well as neo-Marshallian industrial organization, and public choice theory of political economy. Many of these scholarly developments in economics eventually

would go under the banner of New Institutionalism in economics, political science, and sociology.

One could argue that the breakdown of Keynesianism led to a re-emergence of laissez faire policy in economic debates, and the transition experience in the wake of the collapse of communism led to the focus on the vital role of institutions. Older theories of political economy would have seen these two reactions to changing policy circumstances as at odds with one another. *Laissez faire* ignored institutions, while a focus on institutions moved beyond doctrinaire calls for *laissez faire*. But this reading of political economy is actually myopic. There is no conflict between a laissez faire policy prescriptions and an analytical emphasis on institutions, and when one stops and thinks about it this is what one finds in the work of classical economists such as David Hume and Adam Smith as well as more modern economists such as F. A. Hayek and James Buchanan. It is not the laissez-faire tradition that ignored institutions, rather it was the engineering vision of economics that rules out as "unscientific" serious discussion of the role of institutions, and that vision was hardly one that unambiguously supported laissez-faire.

Only the very sterile engineering version of economics could imagine that the transition problem or the economics of underdevelopment could be boiled down to a prescription for getting the prices right. Of course, allowing prices to float freely to clear markets and guide producers and consumers in orienting their behavior one to another is necessary but not sufficent for development, as the ability to get the prices right is a function of the effective operation of complex array of institutions such as those associated with the definition and enforcement of private property rights.

Overviews of the role of institutions in economic development can be found in Ostrom et. al. (2001) and Ahrens (2002). Although this work stresses our need to overcome the market-government dichotomy that reflected the ideological battle from the classical to neoclassical period, there should be no mistake that the role of government in economic development has been severely restricted in comparison to the post-WWII policy consensus of government as a corrective to the social ills that result from market failures.[5] The quality of the institutions of governance (both the private and public devices in operation in a society for warding off predation) determine the capacity of a society to realize the gains from specialization and exchange and stimulate the long term investment behavior that leads to wealth creation. As Mancur Olson (1996) summarized the point:

> Though low-income societies obtain most of the gains from trade from self-enforcing trades, they do not realize many of the largest gains from specialization and trade. They do not have the institutions that enforce contracts impartially, and so they lose most of the gains from those transactions (like those in the capital market) that require impartial third-party enforcement. They do not have the institutions that make property rights secure over the long run, so they lose the gains from capital-intensive production. Production and trade in these societies is further handicapped by misguided economic policies and by private and public predation. The intricate social cooperation that emerges when there is a sophisticated array of markets requires far better institutions and economic policies than most countries have.

The most drastic change in modern economic thought is in fact the emphasis now placed on the study of the institutions (rules of the game and their enforcement) required to realize the intricate social cooperation of an advanced market economy. This requires not just economic and financial institutions, but also political, legal and social institutions that serve to align incentives, and utilize and communicate information effectively so that

millions of individuals can coordinate their affairs with one another. Without the effective operation of these institutions that afford complex coordination, individuals will not generate the material standards of living that are prerequisites for human flourishing.

The dilemma of underdevelopment is that while there are many different ways for individuals to live their lives, there are few ways that they can live prosperously. In order for generalized societal prosperity to be realized an alignment of cultural norms, formal legal rules, and economic organizations must occur. Absent this alignment of informal and formal rules and organizations, and generalized prosperity will go unrealized.

Whether the state plays a positive role in this alignment or not is unimportant for our present purpose. What matters for the meta-discussion of the vision of the state in economic development is that under this configuration the state is not an active player entrusted to correct social ills, and economists are not engineers putting that vision into practice under the guise of science. That vision of the state is consistent with another era of economic thinking and policy. Rather than the state's role in correcting market failures, the focus is now on the governing capacity of an array of private and public institutions which are entrusted to ward off predation by either private opportunists or public exploiters. Overcoming poverty is not a consequence of the state closing an investment gap, or fixing human capital shortfalls in a society, let alone population control through contraceptive education.

The state's role has indeed withered away, and with it, perhaps, will wither the role of the economist. Vernon Smith (2003) has characterized the visionary implications of the new thinking in economics that emerges from both experimental research and the analytical focus on institutions as a transformation from "constructivist rationality" to

"ecological rationality." In the field of development economics, this is a move from the government directly orchestrating economic activity, to providing the fertile conditions for bottom-up development. This represents a swing back toward the more humble self-understanding of what economics can contribute, in that the role of the economic policy maker moves from engineering economic development to cultivating economic development. As a result, the Savior finds herself moving back to the frustrated engineer and more room opens up for the Student to play the role of cautionary prophet and have that role respected. Futhermore, the fact that the move back toward humility has been the result of better scientific knowledge about the workings of the human brain (e.g. Hayek 1952) gives, ironically, the cautionary prophet newfound scientific legitimacy and makes the Savior-cum-engineer seem somewhat unscientific.[6]

With the swing back toward humility in the discipline, the economist as Student is perhaps in the ascendance, and the debate over the economic role of the state in economic development has come full circle. We are back again to Adam Smith's admonition that "Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes and a tolerable administration of justice; all the rest being brought about by the natural course of things." An emphasis on the way in which actors make choices in alternative institutional contexts also pushes the economist away from being the Savior-cum-engineer and back toward being the Student-cum-cautionary prophet: humble in the face of processes that she did not design and cannot control.

**Notes**

[1] The social gospel movement of the 19th century, discussed in Bateman's (2004) paper in this collection, is a good example of the rise of the savior disposition among those with an interest in economic issues.

[2] See Meardon (2004) for more on the US economists Bryant and Carey.

[3] See Swedberg (1998) for an overview of Weber's project for the social sciences.

[4] A comprehensive discussion of the Soviet industrialization debate can be found in Alexander Erlich, *The Soviet Industrialization Debate, 1924-1928* (1960). Erlich, however, tends to reconstruct the arguments from the debate in terms that are understood in the neoclassical synthesis. Boettke (1990: 147-191) provides an interpretation of these debates that attempts to put them within the context of the ideological debates inside the Bolshevik leadership.

[5] As we have stressed the classical economists did not subscribe to this dichotomy either so while people characterize their position as representative of this dichotomy this is actually a false depiction. However, the neoclassical synthesis did speak in terms of this dichotomy and in particular by stressing market failure and government correctives to questions of insufficient aggregate demand, unemployment equilibrium, capital market instability, and underdevelopment.

[6] This view is consistent with the argument Caldwell (2003) makes about Hayek's contribution. Hayek's work on the philosophy of mind provided a scientifically-based critique of scientism.

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