

# Resource-Based Fiscal Capacity Building in Developing Countries



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**Abstract** The lack of adequate capacity in fiscal infrastructure has held back many developing nations, even those that are otherwise rich in natural resource endowments. In fact, the *Dutch Disease* paradigm argues that rich resource endowments may prevent economic development diversification. Worse, the lack of effective fiscal and governance institutions may deprive nations of revenue necessary to generate public infrastructures such as roads, schools, fresh water, and electricity. In describing the challenges facing developing countries and the ways in which developed countries grow by addressing these challenges, the mutual relationship between regulatory infrastructure and economic development is highlighted.

## 1 Introduction

Developing nations may differ little geographically from their developed nation counterparts that may adjoin their borders or share their continent but nonetheless differ in important measures of economic diversity and wealth. Certainly, geography or natural resource endowments cannot explain some of the most profound differences that have held back such developing nations from their rightful place among the developed world. While we can point to many symptoms that suggest the differences that explain such gaps, there is one precursor that likely explains many of these symptoms. Nations otherwise rich in natural resource endowments may not always benefit from the broadest set of fiscal tools and infrastructure to create the public resources strong economic development demands. This paper describes some of the fiscal tools that allow nations to invest in the necessary public physical infrastructure such as roads, schools, clean water, and electricity that economic development requires.

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It is somewhat ironic that the lack of certain public infrastructure institutions has prevented many nations to raise their gross domestic products and standard of living. After all, much of the increase in global energy demand is collectively coming from developing nations. But, without certain market and nonmarket institutions, these countries are prevented from realizing their full and rightful incorporation into the global economy. This paper outlines the elements of fiscal capacity that allow a nation to fulfill its economic destiny. We treat these various capacity dimensions in turn.

## 2 Capacity Building Through New Legal Institutions

In one sense, developing nations are not far behind their developed country counterparts. The market institutions that are often missing in developing countries do not even have a long history in the fully developed world. The primary infrastructure gap holding back economic development is often in the simple establishment of property rights. Trade cannot occur unless ownership and title are well established.

Economists now understand that the laws our political institutions create define what we consider are our rights. These rights we then define as our property, and humankind uses its property to create economic well-being and markets. The more well established these rights may be, the more valuable and protected our property becomes. Acemoglu and Johnson (2005) have helped create the growing consensus on the importance of these rights in generating economic prosperity.

These authors affirm that a modern economy needs two sets of institutions to protect the property-based foundation of free markets. First, institutions that protect these rights against theft or other forms of expropriation are essential to ensure that economic units do not invest excessively in protecting their property rather than creating it. Governments perform this function because of the intrinsic public good and increasing return to scale aspect of the protection of property rights. Acemoglu and Johnson show that individuals can be most productive when such physical and their civil rights are protected. They can then provide the second necessary ingredient of a productive economy. This private sector constitutes the contracting agencies that will then voluntarily exchange among themselves once the property rights they are trading are well established. The private sector creates the value but only if the public sector protects their property rights.

These twin prerequisites are not coequal though. Even the best functioning set of contracting institutions (markets or contracts) are ineffective if the governmental sector has not incorporated a broad set of tools to protect property. In the absence of these public tools, the private sector easily creates informal contracting institutions within their organizations, so long as it is afforded some property rights protections to do so. However, this private mechanism often makes unavailable to the public the resulting efficiencies. As a consequence, in the absence of a public sector that preserves property rights, investment and trade is stunted, even if there exist sophisticated traders, because an inordinate effort is necessarily devoted to protect

rather than create private property. In other words, public institutions that protect property are a necessary condition for the avoidance of poverty.

Acemoglu and Johnson (2005) show that this paradigm explains the success of colonial nations created by the European powers during the seventeenth through the nineteenth centuries. In particular, nations such as Spain, which did little to establish local rules of law or property, created colonies that fed the motherland but did little to establish economic vitality in such hinterlands as Mexico or Peru. On the other hand, England's colonization model emphasized common law property practices, and this promoted significant investment and trade, instead of exploitation. The model based on well-established property law promoted prosperity and development, but the alternative model that viewed colonies as more transient and disposable did not. Even today, these former colonial nations differ in their preservation of the rule of law and hence in their economic prosperity.

The English colonial powers also brought common law of other varieties beyond property, from contract law to commercial law, which helped encourage investment and settle disputes in an efficient manner. Other colonial powers, such as France and Spain, tended to use the more cumbersome and less organic civil law and hence resolved disputes with less certainty and greater costs. Acemoglu and Johnson (2005) argue that civil law is perhaps twice as costly to employ to protect property or resolve contract disputes and hence is much less efficient at encouraging investment and prosperity.

With his *The Problem of Social Cost* (1960), Ronald Coase took the notion of property rights protection still further. He demonstrated how the establishment of property rights to such economic artifacts as the airwaves, clean air (or pollution), or the right to produce or be protected from a nuisance can also encourage exchange and markets where many would assume such markets cannot thrive. The mechanism ensures that resources are then devoted to their best use so long as the administrative costs of preserving rights, facilitating trade, and protecting the exchanged property is relatively efficient compared to the value created and preserved.

Certainly, such property rights must begin with a complete and transparent registry of land, including subsurface rights. The legal institutions of such an innovation are well understood, but the cultural and historical details often stymie the best of efforts. Historical land use patterns, which may date back many generations, often follow an oral tradition or the edict "possession is nine-tenths of the law." Nations and non-governmental organizations can often assist developing nations in the establishment of the legal framework, and modern and accessible computer technologies such as Geographic Information Systems can be most helpful. However, the cultural dimension of the ownership of property rights must be tailored based on local traditions and governance.

Commentators have long hypothesized such a relationship between the rule of law and cultural norms and the economic vitality they generate. For instance, Kaufman et al. (2010) demonstrate that there is a strong positive correlation between economic growth and an index of the rule of law. This is also a theme that dates back

to the work of Nobel Prize laureate Douglass North, as espoused in his seminal work. North (1990) states,

The rules descend from policies to property rights to individual contracts. Contracts will reflect the incentive–disincentive structure imbedded in the property rights structure (and enforcement characteristics); thus the opportunity set of the players and the forms of organizations they devise in specific contracts will be derived from the property rights structure.<sup>1</sup>

Kaufmann and Kraay (2002) further formalize this relationship. They construct an indicator of the completeness of government institutions and show a very strong correlation between governance and economic development, as measured by the logarithm of per capita gross domestic product. With an  $R^2$  of 0.69, they find that effective public capacity that can protect property rights explains 69% of the resulting economic well-being. This relationship is strikingly robust.

Such an effective governance structure may not necessarily be of the strong Federalist form we most often see in the most developed nations. There are substitutes for national level governance. Just as nature abhors a vacuum, in the absence of effective higher level governance, citizens will govern themselves. Villages may be governed by a council of elders recognized for their wisdom. Or, religious leaders can create social cohesion. Such informal governance structures can be sophisticated and effective. But, they lack the cohesiveness and the ability to establish precedent or a broad-based rule of law. Consequently, the dispute resolution conventions and principles they establish are not universal, nor perhaps even respected in the next village. In the absence of such broad-based legal institutions, the trade of goods and services between villages or nations is hampered.

Such a rule of law that transcends localities and generates a sense of national unity requires a system of courts, legislative bodies, and police to enforce the laws they create. These are fixed-cost institutions. A nation must make some investment in such public infrastructure to establish and maintain such institutions. However, without them, sustained growth cannot occur.

### 3 An Over-Reliance on Resource Capacity

Frustrating the social and economic impetus for such creation of an environment for broad wealth formation is the *Dutch Disease*. The term was first used in a 1977 article in the *Economist* magazine that described the economic effects of a large offshore natural gas field adjoining the Netherlands. Economists Corden and Neary (1982) subsequently described the effects of a dramatic expansion in a tradeable sector on another tradeable sector and a domestic non-tradeable sector. In their model, the concentration of economic resources in a booming sector tends to

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<sup>1</sup>North, Douglass, *Institutions, Institutional Change, and Economic Performance*, Cambridge University Press, New York, (1990), p. 53.

erode the vitality of other sectors. Such a *deindustrialization* tends to create a less resilient and diverse economy, with potential growth reduced because of the lack of economic diversity.

In turn, a nation which exhibits greater economic diversity and wealth also requires an increasingly sophisticated regulatory regime. This relationship is known as *Wagner's Law*, named after the early twentieth-century German economist Adolph Wagner for his observation that state spending seems to increase more than proportionately as economies grow. One testable conclusion may be that the lack of fiscal spending thus constrains the economic growth of poorer nations not yet accustomed to a larger government structure. Only an expanded tax base permits sufficient growth of governmental infrastructure and hence the more sophisticated regulatory regime that supports growth. A reasonably sized tax base becomes an essential element for economic growth.

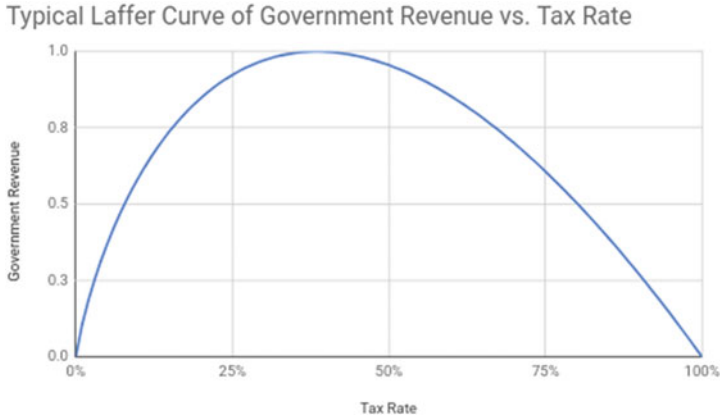
## 4 Fiscal Capacity Building

This tax capacity as a precursor to growth is becoming increasingly apparent. For instance, Besley and Persson (2014a), in their research paper “Why Do Developing Countries Tax So Little?,” note that low-income countries collect taxes at one quarter to one half the typical 40% tax rate that is regularly found in developed countries. They attributed weak institutions, corruption, and lack of sufficiently sophisticated political systems as the primary reason. In turn, nations with an insufficient tax base exhibit a weaker sense of national identity and insufficient unity to create the resolve for a sufficiently potent central government. The authors conclude that this two-way street must be strengthened to improve economic growth.

This relationship has been further explored in the work by Gaspar, Jaramillo, and Wingender (2016b), who note that nations develop at a much higher rate once taxes and the size of government exceed 12–3/4% of GDP. They argue that a sufficiently large tax to GDP ratio must be established to create the “tipping point” for subsequent development. At that point, sharp increases in economic growth occur. Indeed, moving past this tipping point has been shown to produce dramatic results. A movement from a tax to GDP ratio of 12.5–13% will result in 7.5% additional GDP growth. Their result is robust for both contemporaneous developing nations and from historical data from nations that have since developed.

Of course, we also know that a tax rate that is too high can discourage growth, as evidenced by the well-known Laffer curve, named after Arthur Laffer, an economic advisor to US President Ronald Reagan (Fig. 1).

The impeccable logic of this relationship is irrefutable. At a 0% tax rate, there can be no government revenue. At a 100% tax rate, there is no surplus accruable to the private sector and hence no private production or entrepreneurship. Since it is the private sector that generates the production to be taxed, there must be some tax rate between 0% and 100% that maximizes government revenue, as a function of the tax



**Fig. 1** Laffer curve of revenue vs. taxes rate. Source: Laffer (1986)

rate. This investment in public and fiscal infrastructure then allows government to provide the necessary foundation for private production.

The Laffer curve is typically not used as a rationale for the optimal level of government to promote private production. Rather, it is most used to promote an alternative agenda that excessive income-based taxation discourages production and hence encourages leisure. As such, it distorts market choices in a way that also reduces the overall production. Nonetheless, it suggests that there exists an optimal tax rate.

## 5 The Capacity to Generate Income Taxes

Laffer's conclusion identified income taxes. Most developing nations find their initial base comes primarily from resources taxes however. Indeed, Norregaard (2013) describes the significant untapped potential for property taxation in developing countries. These potential tax sources do not negate Laffer's conclusion, which was based on its still-important taxation efficiency perspective. For instance, should most property rights be assigned to just a few wealthy individuals, it is possible that most all property rights may eventually be owned by this concentrated group. Such a poor distribution of wealth will discourage the creation of an emerging middle class and working class that will generate healthy consumption-based demand. Also, since the wealthy often spend only a tiny fraction of their wealth and income locally, and will likely invest the remainder globally, local markets are robbed of the capital and spending they need to ensure a large Keynesian multiplier.

In this sense, a sufficiently progressive income tax is an important aspect of the public infrastructure needed to create economic progress.

## 6 Capacity Building Through Price Distortion Correction

Once the property rights associated with land and resource ownership are clearly established, there may still remain some incompleteness in free markets that can continue to frustrate economic development. For instance, the use of land and resources often has negative externalities that impinge on the enjoyment of others. Some of the most notorious of these externalities even defy borders and contribute to such problems as global warming or acid rain. Such market imperfections lead to market inefficiency at best and market failure at worst.

There are many avenues for pricing distortions that reduce free market efficiency. Even an income tax can create efficiency-reducing distortions. Economists argue that income taxes introduce a distortion that discourages the generation of income and encourages the creation of underground economies. A broad-based ad valorem tax on all transactions, for which a consumption tax is a variation, avoids the discouragement of labor-based income generation. However, even though such a tax that does not distort the price of one good vis-à-vis any other, it still creates a distortion. But, unlike the distortion arising from a tax on labor income, a consumption tax tends to discourage consumption and encourage savings. In doing so, some argue that savings mobilizes investment and hence creates the economic capacity today that results in greater consumption tomorrow.

Such a consumption tax is also unpopular because it is inherently regressive. Since low-income individuals have an average propensity to consume (as a share of income) that approaches one, the consumption tax rate for them equates to an equivalent tax on earned income. On the other hand, since the wealthiest spend little of their income on consumption, a tax levied on their consumption represents a smaller fraction of their income than for a lower income household which devotes almost all income to consumption. Thus, value-added, sales, or other consumption-related taxes are highly regressive and hence politically difficult for nations with wide income distributions.

There are times when selective taxes on some goods can distort their relative prices in a way that corrects another distortion not properly mitigated by the market. Such a selective modification of the market system can remedy the unpriced externalities some goods induce. Almost a century ago, the British economist Arthur Pigou (1920) demonstrated how the price system can properly incorporate third-party effects that we call externalities.

For instance, *vice taxes*, on such activities as smoking and alcohol consumption, can be designed to include in the product's costs the hidden damage to society from the long-term health consequences of their consumption. This is particularly relevant in nations which subsidize or socialize the health-care system. These Pigouvian taxes act to *internalize externalities* but can also generate significant revenue. Since vices are often addictive, and hence their demand is relatively price-insensitive, the tax does not hamper consumption but can yield large amounts of revenue. A higher price can also deter individuals from engaging in the addictive consumption in the first place.

## 7 Methods for Market Capacity Building: The Case of Carbon Taxes

Another classic example of such negative externalities is a tax on carbon emissions. If an economy fails to incorporate the cost of this byproduct of hydrocarbon extraction and combustion, the resource is insufficiently priced. Pigou designed what we now know as a *Pigouvian tax* that equals the damage cost of the externality so that the resource cost fully reflects the sum of market value and environmental costs.

In the alternate, we could regulate such activity. However, if the challenge is a lack of public infrastructure, such regulation may be more onerous, capricious, and expensive than the simple creation of the proper carbon taxes, at either the point of production or consumption, that can internalize the externality through market mechanisms.

There are important precedents that must be established to impose such Pigouvian taxes. Well-established property rights must exist before such taxes can be imposed. Again, insufficient or nonexistent property rights can result in reduced sustainability and a reduction in economic potential. A pamphlet published in 1833 by a British economist William Forster Lloyd described the dilemma created when too many shepherds are permitted to graze their sheep on a public pasture. Unfortunately, land that belongs to everyone belongs to no one, and overgrazing and property destruction often results. In his seminal paper entitled “The Tragedy of the Commons,” Garrett Hardin (1968) developed this concept further. In doing so, he stimulated increased awareness within the environmental movement of what can arise when property rights are not properly assigned.

The most influential contribution in our understanding of the importance of property rights came from Ronald Coase’s Nobel Prize winning contribution *The Problem of Social Cost* (1960). Private markets can properly price factors such as the creation of greenhouse gases or the depletion of resources for future generations only if such rights are assigned. His profound contribution is that it does not matter to whom these rights are initially assigned, only that they are clearly assigned, and free and complete markets allow them to be subsequently traded. To realize his prophecy, nations must then have well-assigned resource and land titles but also well-functioning markets to subsequently trade these rights.

The intuition of Coase’s insight makes it obvious why property rights are important. Markets by their very nature offer an efficient mechanism for trades that benefit both sides of the transaction. So long as any right ends up in the hands of the entity that values it the most, it matters little who has the initial right, from an efficiency perspective.

A developing nation can also raise revenue through carbon credits on forest and pasture resources they don’t develop. In 1990, then US President George Bush revised the Clean Air Act to allow for cap-and-trade pollution rights. As applied to greenhouse gases, this can create a valuable income stream from nations and entities willing to maintain carbon sinks that will allow carbon dioxide producers to continue



to burn hydrocarbons at the expense of purchasing these carbon rights from other entities. While some challenge the environmental ethics of such a market regime, it has nonetheless proven to be an effective conservation measure that helps to manage carbon emissions. These markets have demonstrated that they can be robust and efficient, and can, under certain circumstances, also generate significant revenue to fund government operations.

There is a continuing international dialog over the creation of broad and broadly traded greenhouse gas markets. The recent Paris round of global climate change talks produced a spirit of cooperation toward the goal of the creation of globally traded carbon markets. Realization of this goal, and the revenues it can create for nations who strive for carbon neutrality, remains elusive; however, as the world's second largest greenhouse gas producer, the United States, has yet to fully embrace proposed monitoring and trading regimes. Regardless, between which about \$30 billion US in emission credits are exchanged each year. The World Bank Publication *State and Trends of Carbon Pricing (2014)* reports that China and Europe have the greatest bulk of carbon trading, and 40 nations and 20 other governmental bodies are now imposing carbon taxes or exchanges.

Commentators expect this trend to accelerate as developing nations become more developed and increase their rate of fossil fuel usage and as there is increased global awareness on the ramification of global warming. However, such potential revenue streams also suffer from the vagaries of the business cycle, which adds uncertainty to the revenue stream. In addition, as less developed nations mature, they must navigate the difficult political climate as they move from carbon sinks to net carbon producers. The guidelines that govern that transition are highly political and favor more developed nations surely in the minds of the least developed nations.

## **8 A Georgian Tax to Build Capacity from the Marketing of Fixed Resources**

In the penultimate decade of the nineteenth century, a self-trained economist named Henry George wrote a book that became the most popular piece of nonfiction in the English-speaking world. The premise for his “Progress and Poverty” explained that the benefits of development and progress inevitably are capitalized in the value of the scarce resources of land and natural resources. His prescription was simple—the imposition of a 100% land tax to usurp these values, but without any diminishment in the efforts of us all to improve capital upon the land or use the resources to their greatest effect.

George's personal evolution in economic thinking did not begin with issues of land ownership and its taxation. George took issue first at monopolists. He was not a trained economist, and, indeed, our understanding of the neoclassical model was undeveloped in the last quarter of the nineteenth century. Instead, George was a journalist who also had concerns about the profits that flow to scarce resources

owned by wealthy monopolists, especially land, the scarcest of resources. But, he was also concerned about how monopolies further exploit these resources.

While George wrote primarily about the exploitation of land profits, the excesses he rallied against are shared by all exhaustible resources. These resources have value primarily because of their scarcity. This scarcity yields very high values arising from their marginal production, often at very low marginal costs. Hence, profits to resource extraction are also high. Of course, some of those gross profits go to high sunk costs. But, even most of those sunk costs go to the land owners, and, once these sunk costs are covered, much of the rest is pure profit over many years. These substantial rents create the incentives to extract resources even in nations without well-developed markets or perhaps even especially so. The potential profits even outweigh the associated uncertainties of extraction in nations without proven property rights protection and the risk of eventual exhaustibility. Sophisticated developers can then leverage their asymmetric knowledge against lack of regulatory sophistication to carve out arrangements that may further their profits but frustrate the economic growth in the nations within which they develop.

A number of nations have at least partially instituted these Georgian royalty schemes. In *The Taxation of Petroleum and Minerals: Principles, Problems, and Practice*, Paul Collier (2010) highlights the differences in resource extraction in high income versus impoverished nations. He notes that resource extraction in nations such as Australia, Canada, and Norway often results in large *permanent funds* that transform resource capital into long run financial capital, which, once reinvested, creates even more fiscal capital. This has been the focus of the bulk of the theoretical analysis, but it has not addressed the more common modes of resource extraction in nations without the rule of law, sufficient regulatory infrastructure, and stable governments of sufficient sophistication.

While economists treat resource extraction from an efficiency perspective, Henry George viewed the problem of resource extraction as an equitable one. Often, the riches of society go to those who own the land. He saw the land barons of the developing Western United States become incredibly wealthy, while those who actually worked the land remain in poverty.

Since his analysis, economists have demonstrated that such a land and resource tax would be just sufficient to improve the land through our collective efforts to install the public infrastructure that adds value to our cities and nations. The land tax is the ideal instrument, then, to fund the necessary improvements that create the foundation for national production.

Since the Georgist movement which he spawned, resource-rich nations have at times explored his concept through their imposition of scarcity taxes on resource extraction. The so-called *Hartwick's rule*, described first by John Hartwick (1977), states that a tax that recognizes the scarcity of a resource can be used to build up a capital stock that will benefit future generations, perhaps even when the scarce nonrenewable resource has long since disappeared. These "permanent funds" have been used successfully in Alberta, Alaska, Norway, and elsewhere to ensure a lasting legacy from resource extraction. They have also been used as a tool for economic development so that nations blessed with natural resources can also transition toward

more sustainable long-term economic development opportunities. Such nations do not have to suffer from the “winner’s curse” that sometimes results when resource-rich nations fail to invest in the long term in development that will sustain them when their resource endowments inevitably wane.

## 9 A Summary of Fiscal Capacity Tools

Once a nation can establish the governance and legal structure necessary to establish markets, promote production, and facilitate trade, it must create a sufficient fiscal revenue to cover the governance costs, property rights enforcement, and market institution maintenance that act as the foundation of modern free-market nations. To pay for these institutions, sophisticated nations have a variety of potential fiscal tools at their disposal, each with their relative strengths and weaknesses. These include, in rough order of potential significance:

- Royalties related to the extraction rate
- Georgian taxes on resource and land rents
- Profit taxes that can discriminate between different sectors and cost structures
- Public/private partnerships and production sharing
- Auctions of mineral or environmental rights in sufficiently well-defined and competitive resource extraction regimes
- The traditional corporate and value-added taxes imposed on corporations and the import duties imposed by nations to enhance fiscal revenue and discourage importation
- Environmental taxes such a carbon pricing, under full-auction markets or under cap-and-trade regimes

The most developed resource extraction nations such as Australia and Canada typically use most or all of these tools. As we progress down the list, greater governmental and regulatory sophistication is needed though, in addition to increasing demands on well-established legal frameworks and property rights. The challenge of developing nations is to attain sufficient sophistication to implement the broadest possible scope of these fiscal tools.

Nations with sufficient industrial diversity tend to rely on an increasingly broad toolbox of instruments. However, nations that derive much of their revenue from just one or a handful of resources tend to rely much more heavily on and employ fewer tools. A recent report by the staff at the International Monetary Fund demonstrated that nations deriving the largest share of their gross domestic product from resource extraction also become the most dependent on just one or two fiscal tools, derived

primarily from their resource base.<sup>2</sup> Such a narrowly defined tax base perpetuates the *Dutch Disease* and makes nations' fiscal health highly dependent on highly variable commodity pricing.

## 10 Further Opportunities to Improve Fiscal Capacity

Increasingly sophisticated economies begin to adopt a broader and more extensive fiscal capacity toolbox. Some of these innovations are organic, but many developing nations have benefited from the experiences of the developed nations. Burgess and Stern (1993) broadly surveyed these various tax tools. Their analysis of the fiscal evolution of eight countries ranging from small to large, in Central and South America, Asia, and Africa, allowed them to draw a number of conclusions. They noted that a broad-based income tax is most commonly and successfully applied in the most developed economies that have the reporting, market participation, and formal monitoring necessary to ensure compliance and discourage free-riding. If such tools do not exist, a value-added, sales, or consumption tax is easier to administer because it must rely on compliance only from businesses and hence has fewer points of monitor, reporting, and contact.

While import duties also require fewer points of interaction and reporting, and hence are easier to surveil, international trade reform regimes such as those developed by the World Trade Organization make difficult such trade-based taxes. Excessive import duties also introduce widespread evasion and smuggling. This again points toward the efficacy of a value-added tax as an alternative to import duties.

Easier yet to administer is the royalty tax discussed previously. While it has the potential to raise a very large proportion of fiscal revenue in certain resource-rich nations with relatively undiversified economies, it makes nations prone to the *Dutch Disease* of an overdependence on natural resource royalties. It is administratively simpler than the other methods, though, which makes it much more attractive for nations that have yet to develop an extensive public administration infrastructure.

Burgess and Stern (1993) also point out that administrative capacity is not a sufficient condition for an effective fiscal capacity regime. There must also be the political will. If the ability to convince a diverse set of stakeholders to accept any tax regime is beyond the reach of some developing nations, a more narrowly based tax, such as a resource royalty, may be easier to implement, or, if necessary, coerce. One important hurdle must also be overcome. If the public tolerates corruption and income redirection, any proffered tax regime may be difficult to impose broadly. Until there are the institutions of the rule of law, evenly applied, and the ability to

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<sup>2</sup>Table 5—International Monetary Fund, "Fiscal Regimes for Extractive Industries: Design and Implementation," Prepared by the Fiscal Affairs Department as approved by Carlo Cottarelli, August 15, 2012.

track economic activity, developing nations are left in the interim to develop tax regimes that are simple to administer and difficult to avoid. It would be far too naïve to simply assume that some developing nations can harness the political will and administrative skill necessary to tackle more effective and broadly based tax regimes without first investing in democracy building. But, without the fiscal capacity, it is difficult to create the administrative structure necessary. This is the classic chicken and the egg problem.

## 11 Conclusion

Developing nations are often rich in natural or human resources but remain depleted in the necessary financial capital that can allow them to extend further up the development curve. An inability to mobilize sufficient domestic capital or investment often means that they remain trapped at a level of per capita economic output that is far below their potential. Rather, Gaspar et al. (2016a, b) eloquently demonstrate that the most successful states recognize the mutual reliance on political tools, capacity, and economic development.

State capacity has the dimensions of legal capacity, which secures and protects the various property rights, administrative capacity which equitably and efficiently governs public decision-making, and fiscal or tax capacity which funds government. These in turn provide the necessary condition for private investment and economic development.

This triumvirate of state capacity depends crucially on the political institutions that give the public sector its status. These come from well-defined constitutions, a democratic or participatory process that is considered responsive and has a modicum of shared governance and a nation that elects a set of incorruptible leaders who garner the respect of the citizenry.

Capacity-building turns out to be much more difficult than is the provision of all the other perquisites for economic success. While it is relatively simple to perform technical knowledge transfers, and workforce development can actually proceed at a remarkably fast pace, and while it is not difficult to mobilize investment almost anywhere on the planet, and while the transfer of political and administrative knowledge is even reasonably feasible, the challenge is in the implementation. Education and compliance with regard to how free markets best function, and government best interacts with these markets, takes a surprising amount of energy and time.

Trapped by a chicken-or-the-egg scenario in which development cannot occur because there is no investment, and investment is not forthcoming because there is no development, these nations need a catalyst that can help them progress. Once this catalyst and the prerequisite public infrastructure is in place, economic theory shows that carefully designed taxes can be used to sustain progress. The precursor to this progress, though, is a recognition of the challenges of fiscal capacity building and the development of a vision toward their resolution.

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