

Political Economy of Tax Reform for SDGs

*Improving the Investment Climate; Addressing Inequality;
Stopping the Cheating*

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Abstract:

Emerging market economies need tax reform packages not just for the revenues to finance budgetary spending, but also to create a level playing field in an increasingly interconnected world, to address incentives for firms to locate in clean “hubs”, and to meet distributional objectives. Often, however, such practices accord special preferences to achieve these objectives and, when failing to meet them, create vested interests that block further reforms. The paper outlines the lessons learned from the Chinese reforms in 1993/4 and 2016 —critical to rebalancing for sustainable development. Also, the Mexican reforms of 2013 illustrate how combinations of taxes and non-standard approaches to administration can overcome long-standing opposition to reforms. We conclude by examining the options being developed in research programs for sub-national and local taxation that are critical for local service delivery, access to credit, for involving the private sector, and achieving sustainable and inclusive development.

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I. Introduction and Summary

Tax reform is important for the Sustainable Development Goals (SDGs): to generate sufficient revenues and reduce the cost of doing business, and to address inequalities and incentives facing firms, households, and various levels of governments. These are standard effects from optimal tax theory and welfare-enhancing directions of reform from the status quo (Ahmad and Stern, 1991). Quite often measures designed to encourage investment or benefit classes of people, or even to simplify administration by focusing primarily on large taxpayers, create both incentives to cheat and enable cheating by breaks in the information chain. The net effect tends to be a failure to generate revenues in an efficient and inclusive manner; countries such as Pakistan and Indonesia (and Mexico previously) have had their tax/GDP ratios trapped at around 10 percent, insufficient to meet and finance the SDGs. We examine the political economy of gainers and losers that underpinned the successful reform efforts in China and Singapore in 1993/4, and in Mexico in 2012/13. In many cases, additional work is needed on local property taxation to address gaps in the income taxes, for both revenues and income distribution, but also to lay the basis for access to credit and improved governance for basic services that underpin the SDGs.

In several countries, structural reforms have been triggered by shifting away from taxes that add to business costs towards more efficient sources of revenues, such as the value added tax (VAT), that do not distort production decisions or tax exports. The IMF's Fiscal Affairs Department (FAD) has been in the forefront of popularizing VAT, often in the context of IMF programs. Yet, as Pakistan's experience since 1990 suggests, this engagement and technical support from International Financial Institutions (IFIs) has not always been successful. China, Singapore and, most recently, Mexico, have relied on VAT to raise revenues, reduce the cost of doing business and generate information that stops cheating in the other main tax heads—such as the income taxes and excise and natural resource taxes.

The revenue-equity-efficiency tradeoff is addressed in Section II. Countries can make mistakes by expecting one instrument — for example, VAT or CIT — to address all aspects simultaneously, particularly equity and revenue objectives. We argue that a “package” is often needed, covering a range of taxes at national and subnational levels, as well as spending measures to create a “level playing field”, reduce the costs of doing business, as well as create the right incentives for “clean new cities” and sustainable and inclusive growth.

Section III addresses the political economy of gainers and losers that typically accompany tax reforms. The Chinese comprehensive tax reforms of 1993/4 led to very successful consolidation

of the structural reforms initiated almost a decade earlier under Deng Xiao Ping's Responsibility System. The Chinese reforms were not easy to design or implement, and required a political economy compromise between the central and local governments, and involved a range of national and local taxes and transfers — and there was a focus on growth and employment with poverty reduction rather than inequality. A second generation of tax reforms, starting in 2016 with the integration of VAT on goods and services, further reduces trade constraints and creates conditions for rebalancing for sustainable growth and addressing spatial and interpersonal inequalities. India has also initiated a constitutional amendment to integrate the VAT on goods and services at different levels of government to create a unified economic space and improve the country's competitive position.

In China, additional taxes are needed at the national and local levels, including for environmental and distributional objectives. This is to induce further structural reforms concerning the location of firms and activities, the creation of clean new cities or “hubs” for sustainable development, and to redress the growing spatial and inter-personal inequalities (see Ahmad, Rydge, and Stern, 1993). This provides lessons for many emerging-market economies. The political economy of tax reforms in terms of balancing gainers and losers among sub-national governments is important for federal countries such as India, Pakistan, and Mexico, and for large unitary states such as China and Indonesia.

Section IV focuses on the political economy of reforms to redress special provisions that lead to rent-seeking. Tax reforms have often failed in many emerging market economies — for example, Mexico (before 2013) and Pakistan since the early 1990s. Typically, special provisions for encouraging investment or for distributional purposes lead to preferences and opportunities for rent-seeking, and vested interests are able to block the reforms. These special provisions not only lead to incentives to “make a buck” or cheat, but also break the information chains and thereby enhance the ability to cheat. This set of issues is addressed in the very successful Mexican reforms in 2013.

Many countries, following the IFIs' lead, focused policies on the largest taxpayers (high VAT thresholds and Large Taxpayer Units) because going after the smaller taxpayers was believed not to be cost-effective. However, this set of measures itself opens the possibility for larger taxpayers to hide production, employment, and profits by transacting with other firms not on the radar screen of the tax administration. We focus on some non-standard approaches to tax policy and administration and balancing gainers and losers, with insights from the 2013 Mexican Tax Reform package. There are important lessons for sustainable growth in emerging market economies.

As the base-erosion and profit-shifting (BEPS) debate shows, it is not only the emerging market economies with smaller firms that have a monopoly on cheating. Some of the lessons from the tax reforms in the Emerging Market economies have relevance too for the BEPS agenda in the OECD, often involving the largest corporations in the world, such as Apple, Google, or GM. These issues are not addressed, however, in this paper.

In Section V we address a key set of issues relating to sub-national taxation and the SDGs. These are typically a much smaller component of overall general government revenues than the broad-based taxes, such as VAT and corporate and personal income taxes, that are typically administered at the central level. Yet a provincial and local piggy-back on personal income tax (PIT) might help generate local information that could be useful in closing the loopholes and cheating vis-à-vis the income tax. Also, a piggy-back would permit differentiation in a carbon tax that might be needed for the more congested and polluted metropolitan areas, such as in Mexico, India, and China. None of these options require the establishment of sub-national tax administrations. The essence of the “own” source taxation is the ability to set rates at a margin (within a band in the unitary states).

Property and local taxation is critical for sustainable development, as it has a very important role in facilitating access to credit for local investments and public infrastructure and in generating incentives for better governance. Unfortunately, advanced-country models of administration based on ownership titles and valuation do not work very well in emerging-market countries, often because titles are not very clear, or it is difficult to establish property values. Among advanced countries, the UK, for example, has abandoned this model, by linking occupancy with the cost of local services, but has maintained property tax revenue collections among the highest in the world. **In developing countries, the relatively simple identification of occupancy and links with local services, overcomes political resistance** to one of the most transparent tax bases, and critical for the development of clean cities. Both satellite imagery and block-chain technology provide exciting areas of research in this critical field (Ahmad, Brosio, Gerbrandy, 2017).

In sum, a package approach is needed to generate financing for sustainable development, and to create the right incentives for firms, households, and different levels of governments. These form a substantive agenda of policy research in most emerging-market countries.

II. Is There a Revenue-Efficiency-Equity Tradeoff?

A common error is to expect a single instrument, such as VAT, to raise revenues, enhance efficiency and address income distribution objectives. Good intentions, particularly exemptions and tax breaks for distributional objectives, adversely affect both revenue and efficiency considerations. We have seen this pattern repeated in countries such as Mexico (pre-2013) and Pakistan.

The tradeoff between revenue and efficiency is clearly seen with the choice of instruments to raise revenues. Production efficiency requires that the tax instruments chosen should not unreasonably add to the cost of doing business. Many OECD countries moved in the 1970s from then-prevailing turnover taxes and final-point sales taxes to VAT. A similar pattern emerged in emerging-market countries to shift from trade taxes to “full” VAT to enhance competitive positions. It is worth noting that for a VAT to work efficiently there should be no breaks in the inter-industry chain, so that when goods are exported, the full cumulative amount of tax can be refunded. With breaks in the VAT chain — for example, through exemptions and high-threshold effects — the tax begins to cascade like a turnover tax or production excise. It then adds to the cost of doing business, and because of a break in the information chain, cannot easily be refunded on export.

In Pakistan, for example, the breaks in the chain have led to problems with “flying invoices” and unverifiable and often fraudulent refund claims. Consequently, neither distributional nor revenue or efficiency objectives are met. The split tax bases for VAT in Brazil generate the same effect (popularly called “invoice sight-seeing”) and more importantly add to the cost of doing business and create productive avenues for rent-seeking.

Very simply, both import duties and turnover taxes add to the cost of doing business and cannot be refunded easily on exports, making the economy less competitive. The principle of equal treatment of imports and domestic production has been incorporated in free trade agreements around the world. This has led to an increasing emphasis and reliance on VAT. However, in evaluating the tradeoffs between equity and efficiency, it is important to keep the full gamut of taxes, transfers, and social policies in mind. It is useful to keep in mind the famous Tanzi dictum: “keep it simple.”² However, the principle is not simple to implement, as the institutional context matters. In many cases — for example, several Latin American and Asian countries, as well as in Southern Europe — attempting to “simplify” the administration by

² See Tanzi, Vito (2010). Keynote speech to the Annual Meeting of the Pakistan Society of Development Economics, Islamabad.

focusing on large taxpayers generates discontinuities in information flows and, as seen below, could increase both the incentives and the ability to cheat.

Another argument for greater reliance on taxes that do not add to the cost of doing business derives from the experience of formal social security programs in certain Latin American countries, as well as European economies affected by the economic crisis, particularly since 2010. In the Latin American case, universal social benefits financed by payroll taxes that fall on formal sector firms and workers, tend to be evaded by both, generating incentives for evasion and informality (Levy 2008). These incentives interact with and compound other policies that encourage tax arbitrage. The solution proposed by Levy (2008) was to reduce the distorting taxes such as the payroll tax and replace them with VAT. However, prior to the 2013 reforms, the Mexican VAT was full of “holes” and incapable of performing the required adjustments. In the Eurozone case, adverse demographic profiles also put upward pressures on payroll taxes, and other policies added to the cost of doing business. For countries such as Portugal, that did not have exchange rate flexibility, the only option was to shift from distorting payroll taxes to VAT to reduce the cost of exports and make domestic production more competitive.³ Again, the holes in the VAT had to be fixed in order to compensate for the reduction in distortive taxes on labor and capital.

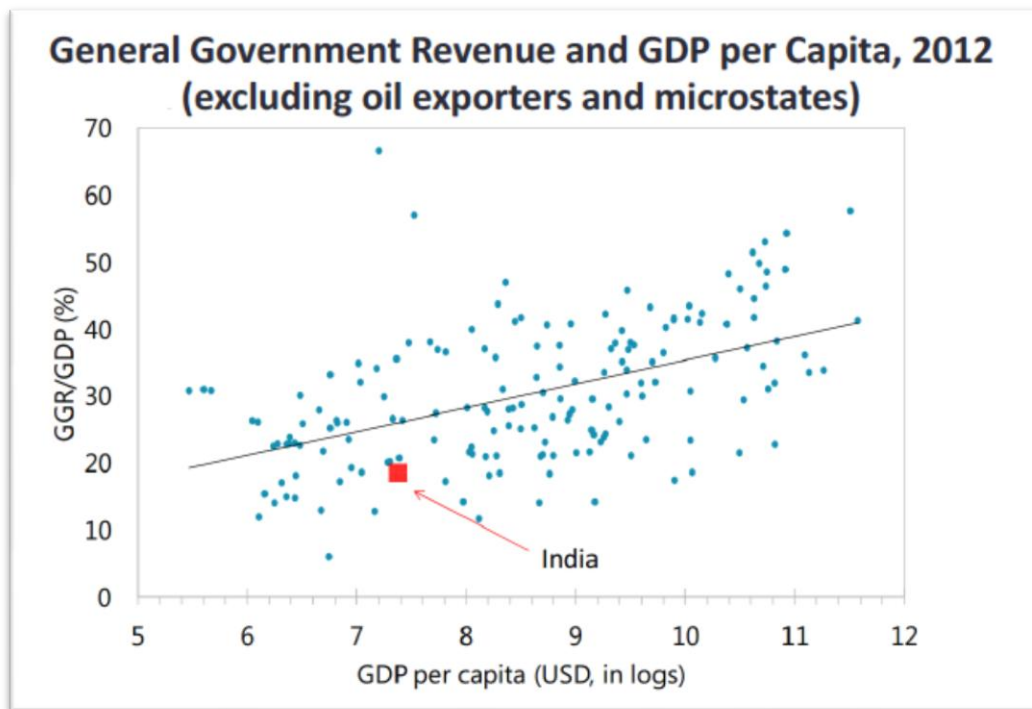
1. Revenue Targets and Political Economy Constraints

The Millennium Development Goals (MDGs) criteria implied an envelope of around 18 percent of GDP in tax revenues to meet the simple basic needs involved.⁴ Many countries in the Asian region as well as in Sub Saharan Africa have achieved this target, including India (see Figure 1 below). China has done so in a more spectacular manner. However, the target was met using very inefficient mechanisms, including a VAT that did not meet all the criteria for efficiency, such as refunds of taxes on capital purchases or a base split between goods (subject to VAT) and services subject to a business tax managed by local governments in China (the other way around in India). This led to cascading, as it became difficult to ensure that credits were fully integrated, and added to the cost of doing business. Consequently, China, completed the integration of the taxation of goods and services under the centrally managed VAT in May 2016. India is just making the transition after the integration of the VAT/GST.

³ This has come to be known as “fiscal devaluation” (see de Mooij, R. and M. Keen (2012)).

⁴ Although the MDGs did not explicitly include a tax/GDP ratio, costing of the various spending proposals yielded a revenue of around 18% of GDP to avoid the need for external finance to meet the SDGs (UN Millennium Project, 2005). This has been taken as a “rule of thumb” domestic revenue target for many developing countries.

Figure 1:



Source: IMF (2013) and India staff report.

MDGs can be met with less than the 18% of GDP domestic revenue target. As we shall see below, countries such as Singapore have managed to perform extremely well in the social policy domain while keeping the tax/GDP ratio well below 18 percent. But in large, multilevel countries with significant investment needs, maintaining a tax/GDP ratio of around or below 10 percent constrains the ability to realize potential sustainable growth paths. Others, notably in Sub-Saharan Africa, such as Senegal,⁵ and Chile⁶ in South America, actually reach the MDG target but are unable to finance or create the local “hubs” needed outside the capital or metropolitan areas. because of poorly designed and implemented local tax systems. In other cases, such as Brazil, the overall targets are also met, but with such a cumbersome tax system that it becomes an albatross or constraint to sustainable growth.

⁵ Ahmad, E., and G. Brosio (2017), and Ahmad, Brosio and Gerbrandy (2017), reports for the EC.

⁶ Ahmad, E., L. Letelier, and H. Ormeño (2016).

2. China — Structural Reforms Lead to Tax Reforms Lead to Structural Reforms

The Chinese case is of special interest because of the close links between tax and structural reforms (Ahmad, Rydger, and Stern (2013)). Because of the Responsibility System introduced by Deng Xiaoping in the late 1970s, both the total revenues generated, as well as the proportion shared upwards with the central government fell precipitously. While there was a positive impact on producers, the declining overall revenue generation had a negative impact on public finances, with the total tax/GDP ratio falling from 25 percent at the start of the reforms to around 10 percent by 1992/3 (see Figure 2). China did not have a central tax administration and relied on upwards revenue-sharing. Consequently, in the absence of modern fiscal institutions and instruments, the structural changes generated a fiscal crisis.

The fall in total revenue collection affected the incentives of local governments to share revenue upwards. Consequently, the central government's share of total revenues also fell precipitously, despite various attempts to incentivize local officials.⁷ The central share, which had been around 55 percent of total revenues at the start of the Responsibility Reform, fell to well under 30 percent by 1993 (see Figure 2), as local governments sought to protect local interests in the face of falling revenue collections.

Thus, by 1992/3, the plummeting tax/GDP ratio, as well as the decline in the share going to the center, meant that the central government's ability to maintain macroeconomic stability, ensure redistribution, or meet the fundamental responsibilities of a nation state were seriously compromised. By 1993/4 a major tax reform was needed to consolidate the structural reforms made because of the Responsibility System, and strengthen the ability of the central government to maintain macroeconomic stability and public investment (see Ahmad, E. Gao Qiang, and V. Tanzi, 1995; Ahmad, 2008;⁸ and Ahmad, E., J. Rydger and N. Stern, 2013).

The establishment of the State Administration of Taxation (SAT), on the most modern lines and with central revenue-raising powers, facilitated the introduction of an “investment-type VAT”. However, a “package” of tax administration and policy reforms was designed to minimize losses and share benefits across rich and poor provinces alike. The key elements of the “package” included the following:

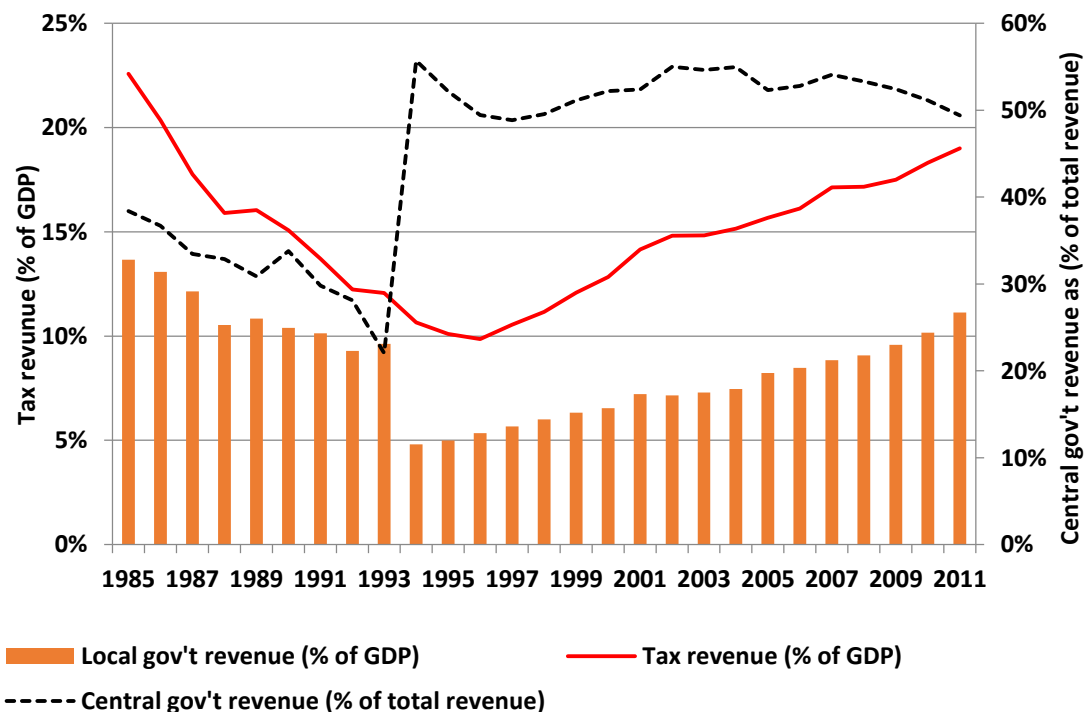
- Prevention of losses among local governments by a “hold harmless” clause — this guaranteed all provinces 1993 levels of revenues in absolute terms in perpetuity;

⁷ See Ahmad, Ehtisham, Gao Qiang, and Vito Tanzi, 1995.

⁸ Ahmad, Ehtisham, 2008, in Lou Jiwei and Shulin Wang (eds).

- Sharing part of the (increasing) revenues from the VAT with the provinces that generated the value added — in other words, mainly the richer ones;
- Introduction of a modern “equalization framework” that enabled all provinces to provide similar levels of services at similar levels of effort. The version adopted in China was based on the Australian model, but with simpler factors, and provided a “buy-in” from the poorer provinces; and
- The most innovative measure in the “package” — provision for a revenue-returned policy to give additional funds to the provinces with better connectivity, but on a gradually decreasing basis. This measure was critical in providing for a concentration of resources in existing “production hubs”, largely along the coast, making use of the existing connectivity in the short run to generate investment, exports, and employment opportunities.

Figure 2: PR China, Evolution of tax/GDP ratios and central-local shares



Source: Ahmad, Rydger and Stern, 2013.

The VAT initially implemented in 1994 was applied only to manufacturing, largely because of administrative constraints, and because of the need to leave at least some tax handles in the hands of provinces (this was the local business tax mainly on services). Further, the VAT was of “investment type” — i.e., VAT on capital purchases could not be offset against VAT on sales. This

again was to meet the revenue targets of the government and was simpler to administer with the nascent State Administration of Taxation (SAT). Almost 15 years later, in the aftermath of the 2008 global economic crisis, there was pressure to reduce the cost of doing business and protect Chinese competitiveness. The investment-type VAT was converted to a consumption type VAT, with VAT on capital purchases permitted to be offset against VAT on sales. China carried out a further reform to its VAT in May 2016, to integrate the goods and services component. Even though this led to a loss in revenues, especially for provinces and lower levels of government, the reform was driven by a need to generate greater efficiency and reduce costs of doing business.

In 2017, India also began implementing a constitutional amendment to integrate the VAT on goods and services assigned to different levels of government. Again, the objective is to maintain market share relative to China and other countries carrying out tax reforms for efficiency, as this reduces the costs of doing business. As in China, compensations to “losing states” are proposed, but these are lump-sum and time-bound and do not reflect the need to permanently realign the transfer mechanisms — as in the Chinese case, for example, introducing an equalization system for current transfers. The multilevel aspects of the Chinese reforms are discussed below.

A corollary of the integrated VAT reforms is that it generates information that can be used to stop the cheating and base shifting in the income taxes. This is examined further below in the context of fiscal reforms, and draws on the Mexican reforms of 2013 as an example of measures designed to block cheating and informality.

While the targets in the MDGs were reflected in overall requirements for revenues for general government, many of the basic services are delivered at the sub-national level. Of the 17 SDGs, at least eight require actions at the local and regional levels — namely health care (3); education (4); water and sanitation (6); industry and infrastructure (9); sustainable cities and communities (11); climate action (13); ecosystems, forests and desertification (15); and reducing corruption (16). Apart from the direct delivery of the services, there is a need for investment in the supporting infrastructure. This typically requires a credible foundation of own-source revenues that can be used to repay debt.

The implication, as mentioned above, is that more than the 18 percent of GDP identified under the MDG targets is likely to be needed over time. Many of the additional revenue options and tax bases must be concentrated at the subnational levels to ensure that subnational governance, investment, and borrowing decisions are soundly based. Unfortunately, this is where the institutional and governance preconditions are the weakest in

emerging market economies. This suggests the need for coordinated work to develop relevant policy and organizational alternatives suited to the appropriate context in specific countries. However, rules of thumb may be severely misleading.

3. Contrasting Singapore and Pakistan

Singapore is a small unitary country with a population of 4 million, with an extremely efficient tax and spending system, and a great deal of transparency. Pakistan, on the other hand, has a federal structure and a population of almost 200 million. It has had great difficulty in shifting from the protection of infant industries under high protective barriers to a more efficient investment climate. The system of administrative controls has spawned a culture of rent-seeking.

Pakistan has had trouble in establishing a modern tax administration. The Chairman of the Government Taxation Reforms Commission in 1985 call the Central Board of Revenue, the most corrupt of Pakistan institutions⁹ and had endorsed a gradual move towards a VAT, based on background work by Ahmad and Stern,¹⁰ as a mechanism to avoid the discretion in granting licenses and exemptions to high tax rates that spawned the rent-seeking culture. The strategy of economic reform in Pakistan since the early 1990s, supported by successive adjustment and stabilization programs of the IMF and the World Bank, was predicated on reducing tariffs and shifting to a more efficient financing mechanism of the VAT/GST on both goods and services, to generate more efficient outcomes for growth, exports and structural reforms. While a goods and services tax (GST) on goods was established in 1990,¹¹ it was under pressure from the IFIs and operated very much like the system of excise taxes it replaced.

The Pakistan GST was implemented like a production excise that led to “backward shifting”, and retained the cascading effect of the previous system. This led to continued pressures for exemptions, and reduced efficiency, as well as increasing costs faced by firms. It also made it very difficult to accurately identify export refunds. Consequently, as tariffs were reduced after

⁹ See ul Islam, Qamar (1985), *The Report of the Taxation Reforms Commission*. The idea of a VAT for Pakistan as a means of limiting rent-seeking and corruption was first raised by the 1972 *Tax Reforms Commission*, which included former IMF Director Azizali Mohammed as Member/Secretary. But the report was classified as “Secret” and never released. It was raised officially by an IMF/FAD technical assistance mission in 1977 led by Vito Tanzi, and then implemented, reluctantly, under an IMF Program in 1990.

¹⁰ See the discussion in Ahmad and Stern (1991).

¹¹ Under the Pakistan 1973 Constitution (which maintained the split tax bases from the Colonial Government of India Act 1935), taxes on goods were assigned to the central level and on services to the provincial level, which reversed the colonial practice maintained in India.

2000, the tax/GDP ratio fell to around 10 percent, where it has fluctuated for the past decade. This has exacerbated the inadequate financing of public services, particularly public education, and investment. Moreover, the practice of granting exemptions has provided ample opportunities for politicians to “make friends and influence people”, and for rent-seeking opportunities on the part of officials.

In Singapore, the issue of a VAT was raised at independence in the late 1970s, but was not formalized until 1986, at around the same time as the discussion in the Pakistan Taxation Reforms Commission. The Singapore Economic Reforms Committee was explicitly concerned about the negative impact of high direct taxes on Singapore’s competitive position and job creation prospects, and recommended a shift from direct taxes to GST.¹² After considerable consultation, **a VAT was introduced in 1994 at a low rate of 3 percent with no exemptions, including for food, except for some financial services, and zero-rating of exports.** This was accompanied by a reduction in the CIT and top PIT rate from 40 percent, removal of cascading excises, as well as reductions in the property tax. Compensation was provided for pensioners and spending on education was increased. The corporate income tax (CIT) was reduced gradually to 17 percent — the lowest in the ASEAN region — and the simple but efficient VAT raised to 7 percent, where it stands today. By 2010, the taxation of goods and services generated 4.7 percent of GDP in Singapore (with a VAT rate of 7 percent), whereas in Pakistan, a 17 percent GST rate generated less than 3 percent of GDP around the same time. Clearly, the extensive exemptions and preferences in the Pakistan GST explain some of the differences in performance. More importantly, the absence of exemptions in the Singapore VAT supports the strong trading and export-oriented production structure.

The overall tax/GDP ratio in Singapore is around 14 percent — considerably lower than the indicative MDG level. However, the proportional spending on education, at 22 percent of all outlays (general government) — is among the highest in the world (Thailand is 20 percent, Korea 15 percent, Chile 16 percent, China 14 percent, and USA 15 percent).¹³ The latest Program for International Student Assessment (PISA) ranking places Singapore as the best performing country in the world with respect to educational outcomes.¹⁴ It is interesting that the current world ranking in education is heavily dominated by Asian countries: (1) Singapore, (2) Japan, (4) Chinese Taipei, (6) China-Macau, (7) Viêt Nam, (8) China-Hong Kong, and (9) China (B-S-J-G). Estonia (3) and Finland at (5) are the highest-ranking European countries. The US is way behind, in the middle of the reported PISA scores. The excellence in education has

¹² Republic of Singapore (1986), *Report of the Economic Committee — new directions*.

¹³ IMF, *Government Finance Statistics Yearbook*.

¹⁴ OECD, (2016) *PISA 2015 Result*, December 6, 2016. China is now represented by Beijing-Shanghai-Jiangsu-Guangdong (B-S-J-G).

undoubtedly played a major role in the structural reforms and growth in the Asian region over the past couple of decades.

Both the policy framework and administration structure are relevant in the context of governance to prevent tax avoidance, base erosion, or outright cheating. Singapore has the advantage of a strong taxpaying culture, buttressed by a simple tax system, with a CIT of 17 percent and a single rate VAT of 7 percent with minimal exemptions. It has one of the most efficient tax administrations with amongst the lowest collection costs in the ESCAP region, and better than in most OECD countries (see Table 1). The simplicity in the tax policy framework, following the Tanzi dictum, is a principal requisite for an efficient administration.

Many, but not all elements, of the Singapore fiscal reform package are applicable to other emerging market economies. Singapore is a small unitary state, with relatively good information on both the sources and uses of funds. And Singapore is not constrained by the need to balance the interests of sub-national governments, avoiding the problems with tax/transfer reforms that occur in unitary multilevel countries, such as China and Indonesia, as well as in federal states, such as India and Pakistan. Yet, as the Singapore tax reforms in 1994 showed, there is a need to think about the gainers and losers of any reforms. Any set of tax reforms must involve an assessment of the effects on private producers and the country's competitive position, as well as the need to avoid or mitigate a negative impact on the poorest groups that are unable to participate in the labor market.

A key feature of the Singapore reforms is the role of a properly designed VAT in reducing the cost of doing business as well as improving competitive positions. A similar consideration has led China to integrate the VAT on goods (administered by the central State Administration of Taxation (SAT)) and the taxation of services (which were administered by province), through the integrated VAT administered by the SAT. The reform was completed in a single act in May 2016.

Table 1: Tax Administration Costs

Country	Administrative costs for tax administration/ GDP (at market prices) %							Variation	Significant factors affecting comparability
	2007	2008	2009	2010	2011	2012	2013	2013-08	
Italy	0.284	0.185	0.198	0.147	0.139	0.152	0.188	0.002	Some major costs not included
Japan	0.137	0.141	0.149	0.143	0.142	0.152	0.148	0.007	
Korea	0.104	0.112	0.113	0.106	0.103	0.098	0.099	-0.014	
China	n.a.	n.a.	n.a.	n.a.	n.a.	0.130	0.121	n.a.	
India	n.a.	0.042	0.043	0.034	0.029	0.029	0.028	-0.014	Direct taxes only
Malaysia	0.135	0.111	0.153	0.078	0.081	0.102	0.122	0.011	Costs exclude indirect taxes
Singapore	0.070	0.082	0.086	0.083	0.088	0.083	0.088	0.006	
<i>Source:</i> Survey responses, OECD Statistical Database, Eurostat and World Bank Statistics.									

In Portugal, a shift to the VAT from taxes on payroll or capital constituted a “fiscal devaluation”, as it led to a reduction in export costs with the fixed exchange rate within the Eurozone (de Mooij and Keen, 2012).¹⁵ We have discussed the Chinese and Indian examples above—both moving in the same direction with an integrated VAT.

III. Political Economy of Gainers and Losers: Multilevel Aspects

Multilevel governments pose significant constraints to reform options, even in middle-sized countries and emerging markets. What is striking is that similar issues arise in unitary and federal countries alike, and that South-South lessons are more important than learning from countries with very different institutions.

Perhaps the most **significant fiscal adjustment in any emerging market economy in recent memory were the Chinese reforms of 1993/4** described above. Despite the recommendation from a normative, or US-based, approach to multilevel finance — “fix the spending assignments, including the SOEs, and then the financing arrangements will follow” — the Chinese authorities adopted what has become known a decade later as the “positive approach” to multilevel finance.¹⁶ This involves offsetting gainers and losers from reforms, and the strengthening of fiscal institutions. Thus, the hold-harmless clause, revenue-sharing, and equalization systems ensured that no province would lose and that rich and poor provinces would have a share in the downward revenue-sharing/equalization system. This reversed more than a thousand years of upward revenue sharing (the central government did not have a tax

¹⁵ De Mooij and M. Keen, (2012), *op cit*.

¹⁶ See Ahmad and Brosio, 2006. Some authors use “positive” approach interchangeably with “political economy” perspectives.

administration until the State Administration of Taxation was established in the early 1990s). And the VAT was the centerpiece of the reform effort that almost doubled the tax/GDP ratio in a decade, ensuring that the center had the ability to conduct macroeconomic policies, redistribution and above all investment for growth.

The final component in the 1993/4 Chinese reforms was the “revenue-returned” that “returned” shared additional funds back to the provinces that generated them for investment purposes. Several foreign “experts” objected to this element on the grounds that money should be given to the poorer provinces and to compensate people affected by the radical tax increases. However, the position of the authorities was that providing the additional investment funds to the poorer interior provinces would have been counterproductive, given the lack of connectivity and markets.

The focus of the revenue-returned was to develop the coastal hubs and concentrate on export led-growth. Freeing up the labor markets led to over 150 million people migrating to the coastal metropolitan area. Over 700 million people were lifted out of poverty in a sustained double-digit growth spurt over two decades. Of course, given the problems of success, there is a need for rebalancing now to shift to producing for domestic consumption by focusing on internal hubs. In 1993/4, tax reforms were needed to consolidate structural reforms initiated by Deng Xiao Ping, but now a second stage of tax reforms is needed to stimulate structural change to reduce congestion, pollution, and inequalities, and generate sustainable growth (see Ahmad, Rydger and Stern, 2013).

While China showed the effectiveness of balancing “gainers and losers” among sub-national entities in the context of a unitary administration with appointed officials, the approach is even **more relevant in federal states with multiparty elections.** The lessons from China were first internalized in a federal country — Mexico, in 2007. It is interesting that the Chinese experience was relevant, since Mexico is a federal state with a multi-party system in which opposition parties had the power to block legislation in the upper house, as in India or Pakistan. In India, the constitutional amendment to fix the multilevel VAT also envisages compensatory transfers to states for a limited period. However, without the “permanent” use of an equalization system, or assignment of a new tax handle that the states can operate for own-revenue purposes, the Indian proposals do not quite reflect the multi-level tax-transfer system in totality to implement national tax reforms for efficiency, own-source revenues for accountability, and equalization transfers for equity that are the hallmarks of a “sustainable package” of reforms.

Mexico is a laboratory for fiscal reforms. A VAT was introduced in the early 1980s, involving the suppression of dozens of state-level taxes, and represented a model for tax reforms in emerging market countries (see Gil-Diaz, 1986; Newbery and Stern, 1986). The reforms were

made possible because the same party was in power in the federal government and in most of the state governments, and the states were compensated through an intricate system of compensatory transfers. However, over time special exemptions and reduced rates for distributional and investment purposes were introduced, and the federal taxes displayed signs of “good intentions bad outcomes”. This reduced the non-oil tax/GDP ratio to just over 10 percent of GDP by the late 1990s. The states were left with few own-source revenues (over which they had control, either over rates or the base). The non-oil revenue situation was precarious, like that in China in the early 1990s or Pakistan around 2010, given that petroleum production is projected to fall in the medium term. Attempts to fix the holes in the VAT or the CIT affected states in differential ways, and were blocked by “losers” among the states, as political parties proliferated and the monopoly of the Institutional Revolutionary Party (PRI) at both federal and state level eroded.¹⁷ Indeed, given the complex and opaque system of transfers, states could get additional resources from the federal government towards the end of the financial year — removing any incentive to impose own-source taxes. Most states refused to apply a piggy-back on the personal income tax that was open to them, and blocked efforts by the center to reform the VAT.

Finally, in 2007, a political-economy compromise was needed for the federal government to introduce a new minimum tax credited towards the CIT, but that operated on value-added principles (the IETU). It replaced a minimum gross asset tax (GAT) that is used widely in Latin America to plug holes and preferences in the CIT. However, it was largely ineffective in Mexico. The IETU was expected to be less distortive than the GAT, and was introduced by utilizing the Chinese stop-loss provisions across states, and partially rationalizing the complex intergovernmental revenue-sharing/transfer system. This ensured that no state would lose because of the reforms. This showed that the “positive” approach used in a unitary state in Asia, could apply in Federal country like Mexico in Latin America, in relation to the possible constraints imposed by the interests of state governments. The IETU and subsequent reforms are discussed in greater detail in the next section.

1. Compensation with Conditional Cash Transfers

It is notable that an attempt in Mexico to fix the holes in the VAT in 2010, by promising to link compensation to the conditional cash transfers (CCT) received by poor individuals under the 1990s *Oportunidades* program was rejected. At the same time, a package of reforms in

¹⁷ In 2000, the PRI ceded power at the center, after 70 years, to successive National Action Party administrations (Fox and Calderon), until 2012, when the Peña Nieto administration regained power for the PRI at the federal level. However, a truly multi-party system has evolved in Mexico.

Pakistan aimed at fixing the holes in the VAT and adjusting energy prices, and raising the tax/GDP ratio from under 10 percent of GDP towards 14 percent, formed the core of an adjustment program supported by the IMF and the World Bank. It also envisaged a CCT program, the Benazir Income Support Program (BISP) modeled on the Mexican *Oportunidades*, as compensation for possible negative price effects on the poorest groups. While the BISP is reportedly an effective mechanism to provide support to the poorest elements in society, especially in rural areas, most of the groups that might be affected by the tax changes were largely urban traders, workers and salaried middle income households. While the envisaged tax reform was not introduced, the BISP was implemented, as it bought political support for the ruling party with funds provided by donors.

Singapore introduced a VAT with no exemption or compensation. And the VAT played a major role in ensuring that the revenues raised do not adversely affect Singapore's preeminent position as a trading nation, with the effective removal of all taxes from exports facilitated, by the clean VAT value chain with minimal exemptions. The efficiency is carried through to the spending side as well, and Singapore has achieved its top-ranked education level despite its tax/GDP ratio being below the indicative MDG level. Rather than spending the additional resources to compensate consumers, Singapore correctly focused on improving its public education system.

2. Tax Administration and Accountability

Tax and social policies need to align incentives facing different levels of government, firms, and households, and should remove possibilities of arbitrage or incentives to cheat. The policies, however, need to be supported by an administration that generates information, probability of detection, and effective sanctions to block the ability to cheat. Modern tax administrations are typically organized on a functional basis that focuses on reducing the compliance costs for taxpayers, minimizing direct contacts between tax officials and taxpayers (except in the taxpayer services and facilitation department), and relying on information generation and audit to identify anomalies and stop cheating. Rather than the outdated model of rewarding officials who bring in more revenues, arms'-length institutions prevent direct contact between tax officials and taxpayers to ensure that revenues are collected efficiently, and cash flows tracked to prevent rent-seeking and leakages.

A typical approach to subnational governance in many emerging market economies, from Mexico to South Asia, **has been to establish separate tax administrations at different levels of government for split bases for the VAT and income taxes.** This leads to an increase in the complexity facing businesses. With the VAT, there are possibilities of arbitrage and "cheating"

as the integrated flow of information becomes harder to achieve. The overall quality of the administration, especially for the wide-area taxes such as the VAT and income tax, then is as good as the weakest link. The essence of local accountability, however, lies in the incentives that are generated by a control at the margin over rates and a specified base.¹⁸ If a subnational government cannot control the marginal rate of a subnational tax, even with its own administration, the tax is no longer an own-source revenue but must be considered a shared-revenue or transfer with relatively high collection costs (Ahmad 2015), as we see below.

The typology of modern tax administration builds on a functional approach to administration that ensures arms-length operations (see Figure 3) by ensuring **that no single administrator can influence a tax payment, and that there are checks and balances based on the generation of information, risk assessment, and audit.** The enforcement function is particularly important as it reflects the collection of information from various taxes into a common data base (e.g., the VAT, CIT, and excises) that can be juxtaposed against real sector variables and third-party information (e.g., asset holdings, and consumption patterns) that provide a basis to signal risk-based audit. The outmoded approach to “incentivize” tax collectors by assigning bonuses in relation to taxes generated, was needed in older systems of production-based excises (common in South Asia, for example) where the tax collector sat in a firm to monitor turnover. However, this was the source of great corruption and potential to “make deals” that are just not possible with the modern functional tax administration approach. Indeed, a 1986 assessment is noteworthy, in that this has been consistently ignored.

In his cover note to the Finance Minister, the Chairman of the 1985 Tax Reform Commission (Mr. Qamar ul Islam) described the Pakistan tax system:

“as stated in our letter dated May 15, 1986 transmitting our interim report, the three basic maladies from which Pakistan is suffering at present are tax evasion, smuggling and corruption. These are inter-related and one feeds on the other.”¹⁹

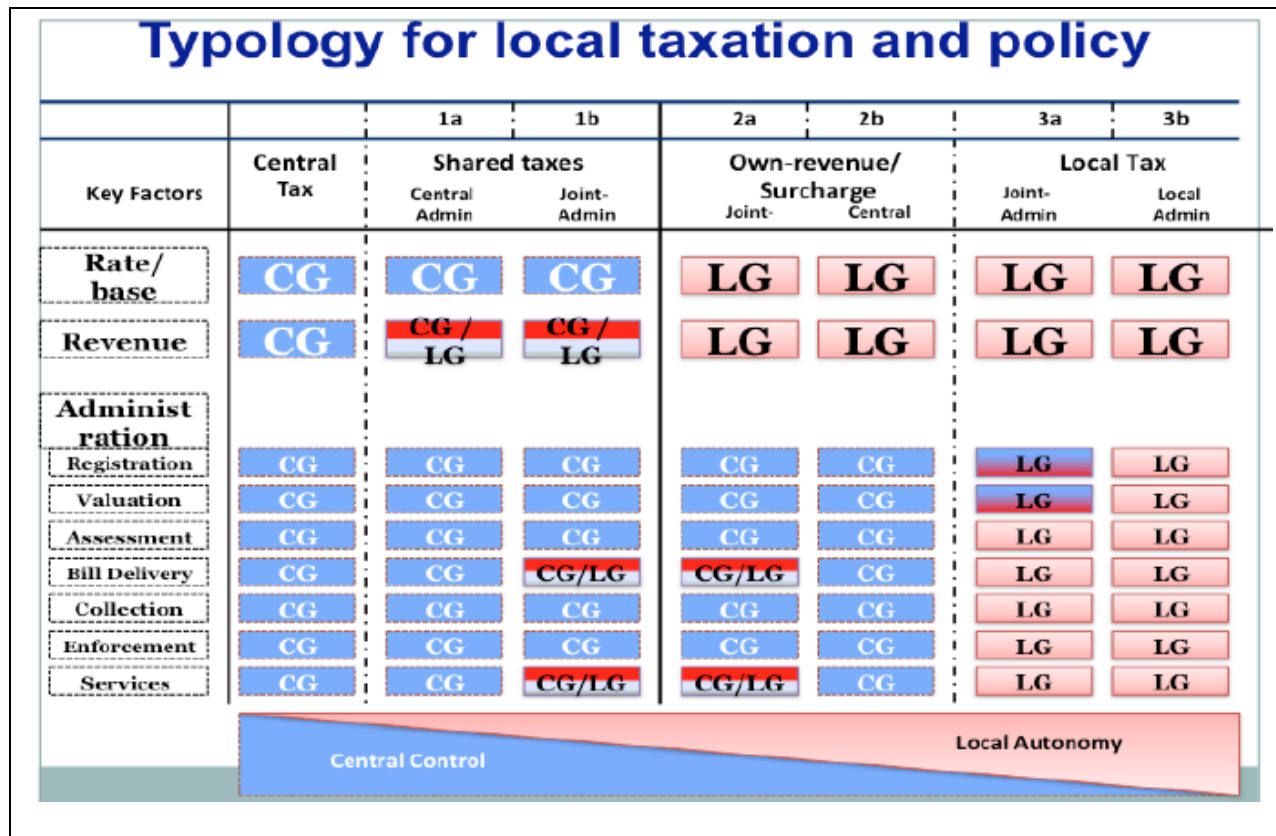
Subsequently, the 2001 Shahid Husain Committee Report recommended a modern functional approach to tax administration in Pakistan, but this has never been properly implemented, given the lack of enthusiasm on the part of tax administrators and politicians, despite a

¹⁸ See Ambrisano, F and M. Bordignon (2015), in Ehtisham Ahmad and Giorgio Brosio, eds., 2015. There can be no hard budget constraints for subnational governments if they do not at the margin have control over the rates of a tax instrument that can be increased if the jurisdiction runs into difficulties in meeting its debt repayment obligations.

¹⁹ Letter from Chairman Qamar ul Islam to the Finance Minister, December 31, 1986.

US\$130m tax administration reform program financed by the World Bank, and then another US\$300m package in 2013, after the first was deemed to be a failure.²⁰

Figure 3: Typology for local taxation and policy



Source: Ahmad, E. (2015), "Institutions and Governance," in E. Ahmad and G. Brosio, *Handbook of Multilevel Finance*, Edward Elgar.

There is a continuum between policies and administration that ensures accountability. As seen in Figure 3, shared-revenues do not ensure accountability, as they do not represent control over tax rates at the margin. Hence, a shared tax cannot be used as an instrument to raise additional funds, should the need arise (e.g., as collateral for borrowing). Thus, in incentive terms, shared revenues are like transfers (Figure 3, columns 1a and 1b). The fact that there is subnational administration does not affect this assessment. For instance, even if all elements of tax administration were carried out at the state/provincial level, but the rates at the margin were determined in common with all jurisdictions, as is being proposed in India

²⁰ Government of Pakistan, *Report of the Task Force on the Reform of Tax Administration*, Islamabad, April 14, 2001 (Shahid Husain Task Force). See also Government of Pakistan, 1985, *Report of the Tax Reforms Commission*, (Qamar ul Islam Commission) in which the tax administration was labelled as the most corrupt of Pakistani institutions.

(variant of 1b), the subnational jurisdictions cannot claim the revenues as own-source. In some cases, the state/provincial government could use the tax administration to influence the tax base, but that generates distortions and a possible “race to the bottom”.²¹

The control over rate structures is much more effective in generating accountability, even if all or some elements of tax administration are managed at a different level of administration. Indeed, face-to-face negotiations between taxpayers and the tax administrator is a severe problem in the case of the property tax — e.g., in South Asia as well as Mexico, reflecting the problems in many emerging market economies. The issue of the property tax is discussed further below.

By structuring the administration along functional lines, it becomes possible to concentrate on the key elements that make for an efficient tax structure. The flow and management of information is critical, both within a tax and across taxes. The registration function ensures that there is a common tax identifier number for all taxes and levels of government — and facilitates the flow of information and linkages between different types of taxes, particularly the VAT, the income taxes and payroll tax. The enforcement function depends on a central database and flow of information across different criteria, particularly for the VAT and income taxes. This triggers flags for anomalies that need to be audited, with effective sanctions, as may be stipulated in the legislation. If the VAT and income tax bases are split, there is a danger that neither tax will perform effectively to raise revenues, while minimizing distortions and burdens on the taxpayers. With limited scope for local rate adjustments, there is even less justification to maintain or create multiple tax administrations, even though this tends to occur for political reasons, as in Pakistan following the 18th Amendment.

A local surcharge, generating the same amount of revenue as the revenue-share, even with central administration, becomes an own-source of revenue if the subnational jurisdiction has the right to raise or lower the marginal rate that it has been assigned. The surcharge or piggy-back is typically not recommended in the case of the VAT, but could work well with an integrated base for the personal income tax. Note that the income tax base is split in both India and Pakistan, with multiple administrations, creating significant loopholes and rent-seeking opportunities. The surcharge on the *full income tax* could facilitate the integration of the tax administration, without loss of own-source revenue-raising powers, and be a way to block the cheating for one of the fastest-growing revenue bases in emerging markets, as in India. And because the full tax base is used, the cheating in the income taxes can be blocked with an

²¹ In Mexico, the race to the bottom occurred with the vehicle tax assigned to the states in 2010, because of cross-border competition and the possibility of accessing “gap-filling” central transfers to meet deficits at the end of the budget year (Piñeda et al., 2015).

appropriate use of information from the income tax — increasing the “total pie” available for the surcharge. Thus, higher revenues could be generated without a need to raise tax rates and further increase incentives to evade.

The surcharge approach is important in the context of a potential carbon tax that could form the basis for initiating structural changes, with the production and consumption patterns. Thus, the more congested and polluted metropolitan areas may require higher-than-standard carbon tax rates, without running the risk of the tax falling to zero in a race to the bottom.²² Again, the national tax administration capabilities would prevent the race to the bottom while providing rate-setting options for provinces/states and potentially also municipal governments.

Modern tax administrations rely on effective management of big data. This involves the crossing of information from various sources to wages and employment, assets and profits, as well as production and sales. This points to a need to triangulate information from various sources, in order to detect potential mismatches and inconsistencies. Also, with increasingly decentralized records, such as block-chains, there has to be greater integration between the local and national databases, and between the tax administration and cash management functions. This is an increasingly important area for research, and a subject of great policy importance (Ahmad, Brosio and Gerbarndy, 2017).

3. Complexity, Connectivity and Tax Reforms

An objective of sustainable development is to better utilize existing human and natural resources, making use of both domestic and external linkages to generate employment over the medium term. As seen in Singapore (and China), both domestic and external linkages and growth have increased with tax reforms. The impact on structural reforms is nicely encapsulated in the Harvard-MIT complexity assessment that shows how the economy has diversified over time.²³ A positive index (1.64) for Singapore shows high complexity and diversity in the production and export performance of the economy (Figures 4a and 4b). But this is not always the case since there can be growth with reduced complexity, as in Chile.

²² See Ahmad, Ehtisham and Nicholas Stern, 2011 (original submission to the Indian Finance Commission led by Vijay L. Kelkar).

²³ See Hausman, Ricardo, César Hidalgo, et al, 2015, *Atlas of Economic Complexity — mapping paths to prosperity*.

Figure 4a: Economic Complexity Map, 2008

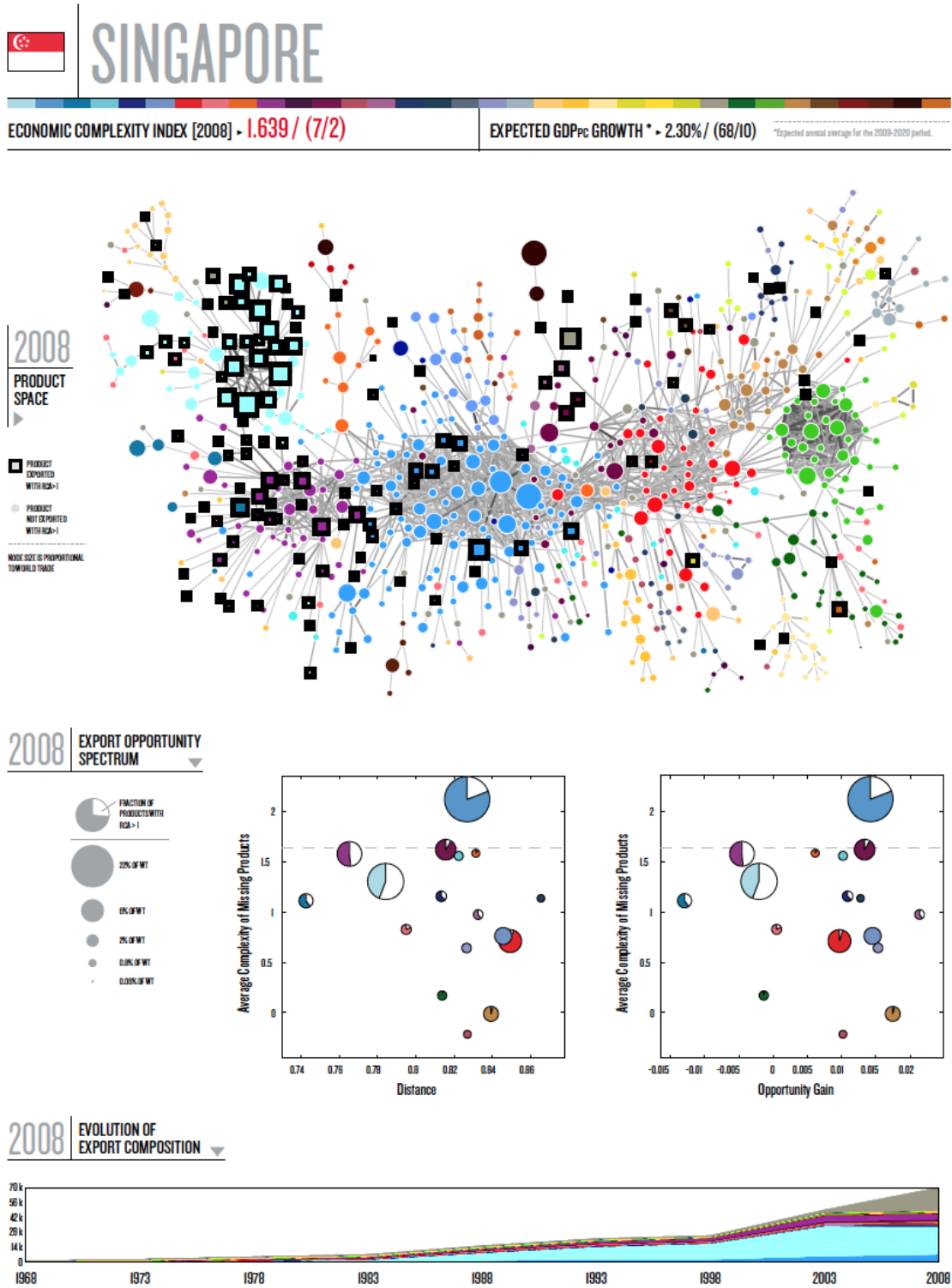
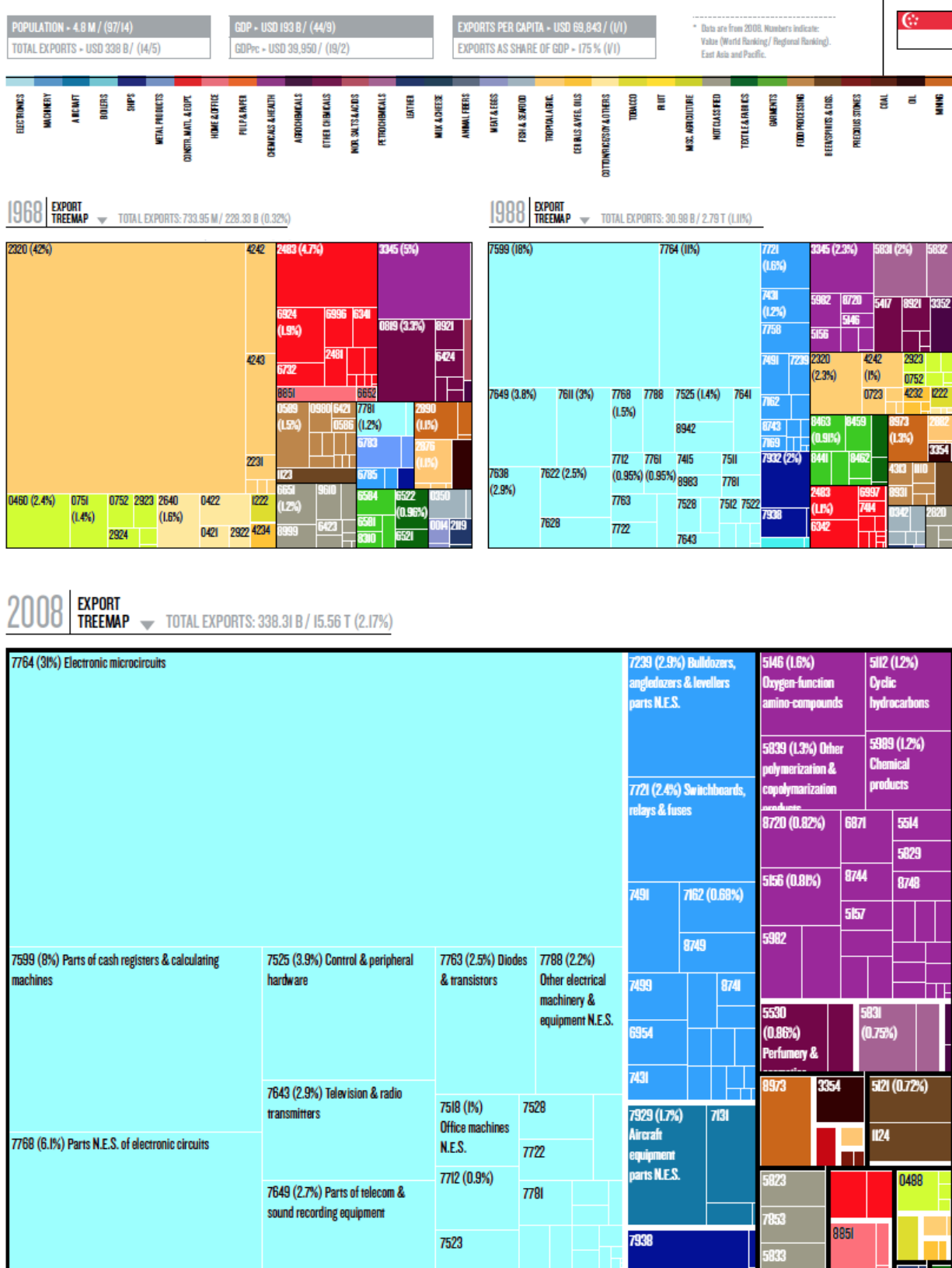


Figure 4b: Singapore — Changing Export Tree Map, 1968-2008



This is due to a Dutch disease effect that leaves the country more dependent on exports of natural resources and agricultural goods, with limited employment growth potential (Ahmad 2017, G24 Companion Paper).

There are heightened expectations that the cross-border connectivity associated with infrastructure investments in Central, East, and South Asia will provide a “game changer” with respect to sustainable growth. However, Pakistan’s example illustrates a negative index (-0.4), showing low complexity linked to the poor public services, particularly education, and inadequate infrastructure investments, due largely to the failure to address the domestic resource mobilization challenges (see Figures 5a and 5b). The increasing dependency on traditional exports and raw materials makes the economy more vulnerable to competition from countries, especially more efficient countries in Asia, such as Viêt Nam and Cambodia, where wages, exchange rates, and the tax system enhance their competitive advantage.²⁴ With improved connectivity the weaknesses in the business climate and unnecessary additional costs due to inefficiencies in the tax and spending system will likely become unsustainable — even if ad hoc criteria of debt sustainability are met in a superficial sense.

²⁴ Cambodia, for instance, expects to benefit from the shifts in the value-chain in China, and from improved connectivity, leading to new opportunities in agriculture, garments, and construction sectors (Chea Chanto, National Bank of Cambodia (May) and Kunmakara, December 2016).

Figure 5a: Pakistan: Complexity Map, 2008

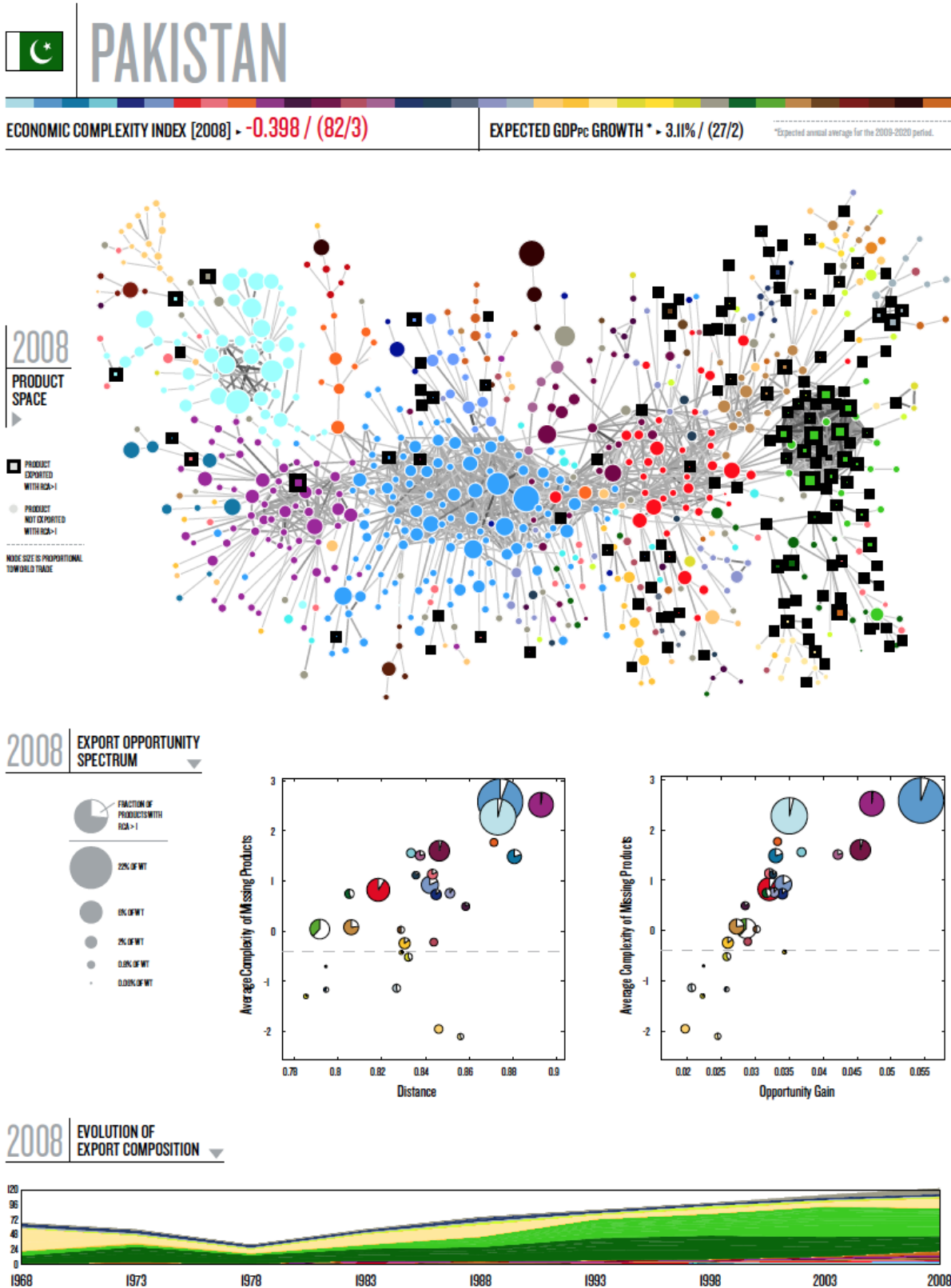
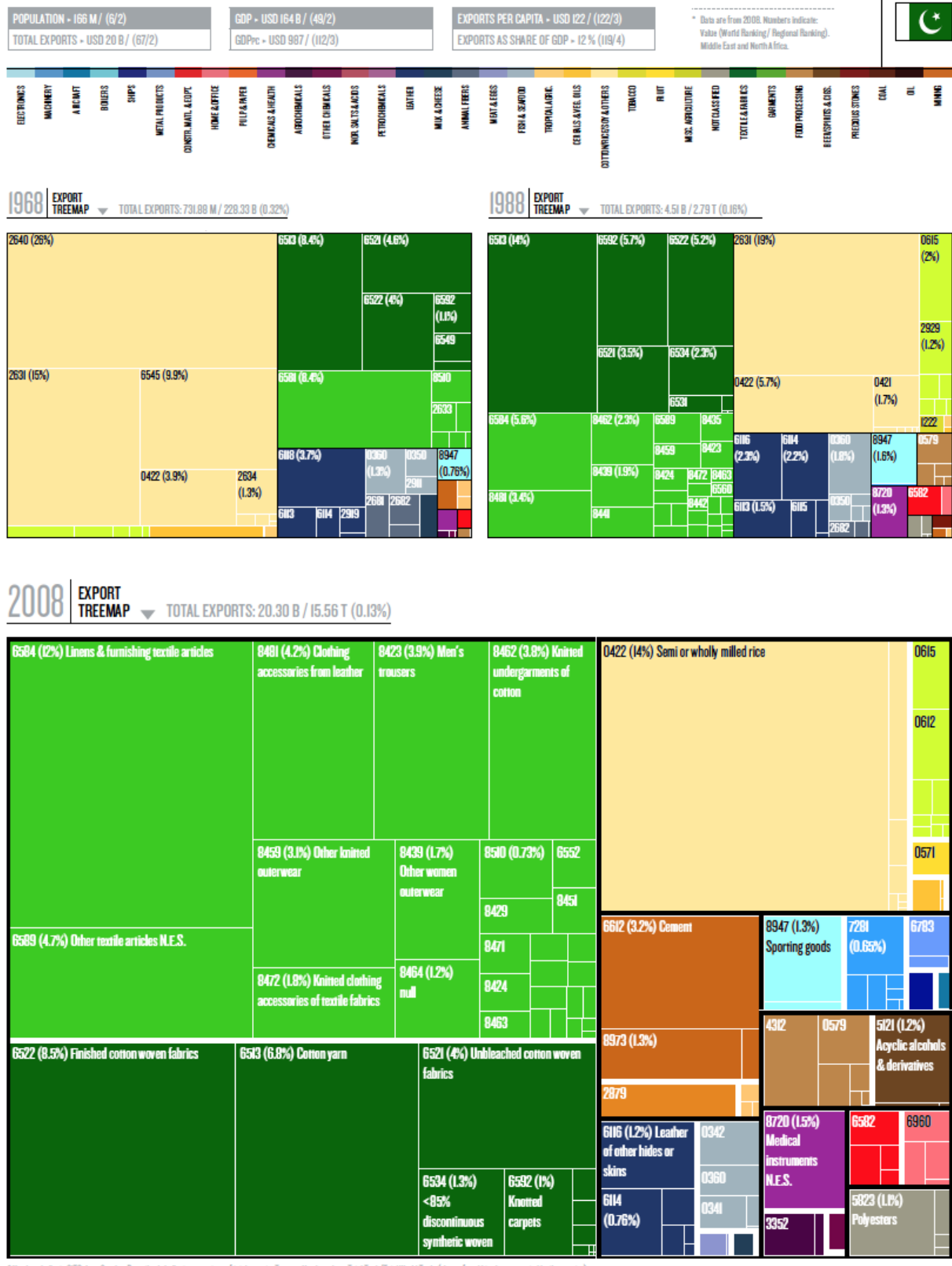


Figure 5b: Pakistan — Changing Export Tree Map, 1968-2008



IV. Good Intentions Bad Outcomes: Stop the Cheating

Santiago Levy (2008)²⁵ argued that inappropriately designed social protection systems can raise the cost of doing business and increase the incentives for firms to “hide” outlays on labor, and for workers to accept temporary and informal contracts. Both of these incentives lead to inefficient outcomes and reduce potential growth — constituting “good intentions but bad outcomes.” The recommendation was a shift from the high payroll tax on firms that adds to the cost of doing business, to the VAT that should be neutral to production and exports. But the Mexican VAT was not capable of performing this function, and the “good intentions, bad outcomes” story applies to the Mexican tax system, particularly the VAT, as much as to the financing of the social security system. The use of the payroll tax to finance local government administrative expenses is perhaps more pernicious than financing social benefits.

1. Tax Reform Challenges in Mexico

Since Mexico introduced VAT in the early 1980s, successive governments have provided additional incentives for investment and production by reducing rates in sensitive or “border regions”, along with exemptions and domestic zero-rating for both investment and distributional objectives. And the base for the major taxes (including both VAT and income taxes) was split, with the allocation of the small taxpayer regime (REPECOS) to the state level. With access to “gap-filling” transfers from the federal government to meet state deficits, there was no incentive for the latter to pursue the “hard to tax” groups under the REPECOS, and the Mexican Tax Administration (SAT) estimated that there was 95 percent evasion under the system. The “gap-filling” transfers also had a negative impact on incentives to implement own-source revenues, such as the “piggy back” on the income tax that has been an option, or the vehicle tax after it was fully devolved to the States in 2010. The net result was that the non-oil tax/GDP ratio for general government was around 10 percent. The C-efficiency²⁶ of the Mexican VAT was similar to that in Pakistan, at around 25 percent, among the lowest in the world.²⁷ Consequently, an “inefficient” VAT could not be a replacement for the distorting payroll tax.

The Mexican income tax, *Impuesto sobre rentas (ISR)*, also suffered from growing base-erosion. Many of the beneficiaries were large firms with important political connections. Once given, the special provisions and tax breaks become virtually impossible to remove — a phenomenon common also in other emerging countries (and in developed countries for that

²⁵ See also Antón, A., F. Hernández, and S. Levy (2013).

²⁶ The C-efficiency of the VAT is simply the ratio of VAT revenues to consumption divided by the standard rate. The most efficient VATs range above 90%.

²⁷ See Antón, Hernández and Levy (2012).

matter). Initially the Mexican government tried to rectify this with a “minimum tax”, called the minimum asset tax (IMPAC), a form of gross asset tax widely used in Latin America. As with the ISR, this IMPAC was aimed at the largest taxpayers, who also have a greater ability to engage in tax avoidance. Nevertheless, the influence of vested interests proved too strong; the government was unable to overcome the opposition in the Senate to address the holes in either the Income Tax, ISR, or VAT.

To “plug” the seeping holes in the tax, the government introduced in 2007 another form of minimum tax, creditable against the ISR through the *Impuesto Empresarial a Tasa Única* (IETU). This adopted the VAT principle even though it was a minimum income tax. The reform addressed political economy concerns through a Chinese-style “stop-loss provision” and a rationalization of intergovernmental transfers. This ensured that no state lost revenues because of the reforms (Ahmad, Gonzalez-Anaya et al, 2007). This “reform package” was approved by the congress, presaging the deeper reforms to follow in 2013.

While the IETU had some disincentive effects, the underlying value-added design did not disadvantage investments as much as a turnover tax would have. However, the IETU added to the complexity and burden of tax compliance. Not surprisingly, its base began to display additional breaks at the behest of powerful interests that had plagued the ISR in the first place. While an additional 0.4 percent of GDP per annum was generated after 2007, this was insufficient to “plugging of holes.” Moreover, IETU did not significantly expand the base of non-filers. Further consolidation of the income tax base was required to build upon gains and generate information. A simple and full base VAT was still needed to identify non-filers, and reduce incentives to cheat, together with a credible audit threat. But if this were feasible in the first place, the IETU would not have been needed.

It is noteworthy that another attempt to close the holes in VAT failed in 2010. This would have provided compensatory benefits to households through the *Oportunidades* scheme (the famous conditional cash transfer, CCT, on which many other schemes, including in Asia and Africa, are modelled). Firstly, many of the “losers” from a VAT reform are urban households and the CCT provides benefits mainly to poor rural households, making it an inappropriate compensation mechanism for many energy price and tax reforms. Secondly, the main losers in a VAT reform tend to be firms with vested interests, and possibly some states, given the revenue-sharing system. The interactions between the “holes” in the VAT and the special provisions in the ISR present a formidable incentive to cheat and engage in informal activities, but which cannot be addressed by the CCTs, as was seen in Mexico in 2010. Of course, there are other problems with CCTs that have become apparent in México that are relevant for other

emerging market or developing countries in including Indonesia and Nigeria, that are considering both tax reforms and energy price adjustments.

2. How Firms Cheat

There are two mechanisms for evading or avoiding taxes. The first involves firms avoiding coming into the VAT/ISR net by remaining below the annual turnover threshold, or splitting into different firms to avoid paying tax. This is the typical case discussed in the literature and formalized in Keen and Mintz (2013). The revenue losses from this reconstitution by “avoiders” at lower levels of turnover are likely to be small, and this provides the logic for the strong support from the international agencies to raise the registration threshold to “reduce the burdens on the tax administration” (see, for example, the report by the IMF and World Bank to the G20).²⁸ Small traders and SMEs exercise enormous political power in countries such as Pakistan, and are a stumbling block to meaningful reforms — unless they can be persuaded simultaneously that the losses will be offset by rationalization of the income taxes, as in Singapore. But this also requires the establishment of an arms’-length tax administration that does not impose additional costs of doing business, especially on small firms.

While there is some evidence for the Keen-Mintz (2004) hypothesis in Mexico, **the second and by far the more important cheating mechanism is outright evasion by larger firms**, which also have much greater political clout than the smaller traders in a more advanced country like Mexico (Ahmad, Pöschl, and Zanola, 2017).

The two principle channels for rent-seeking are:

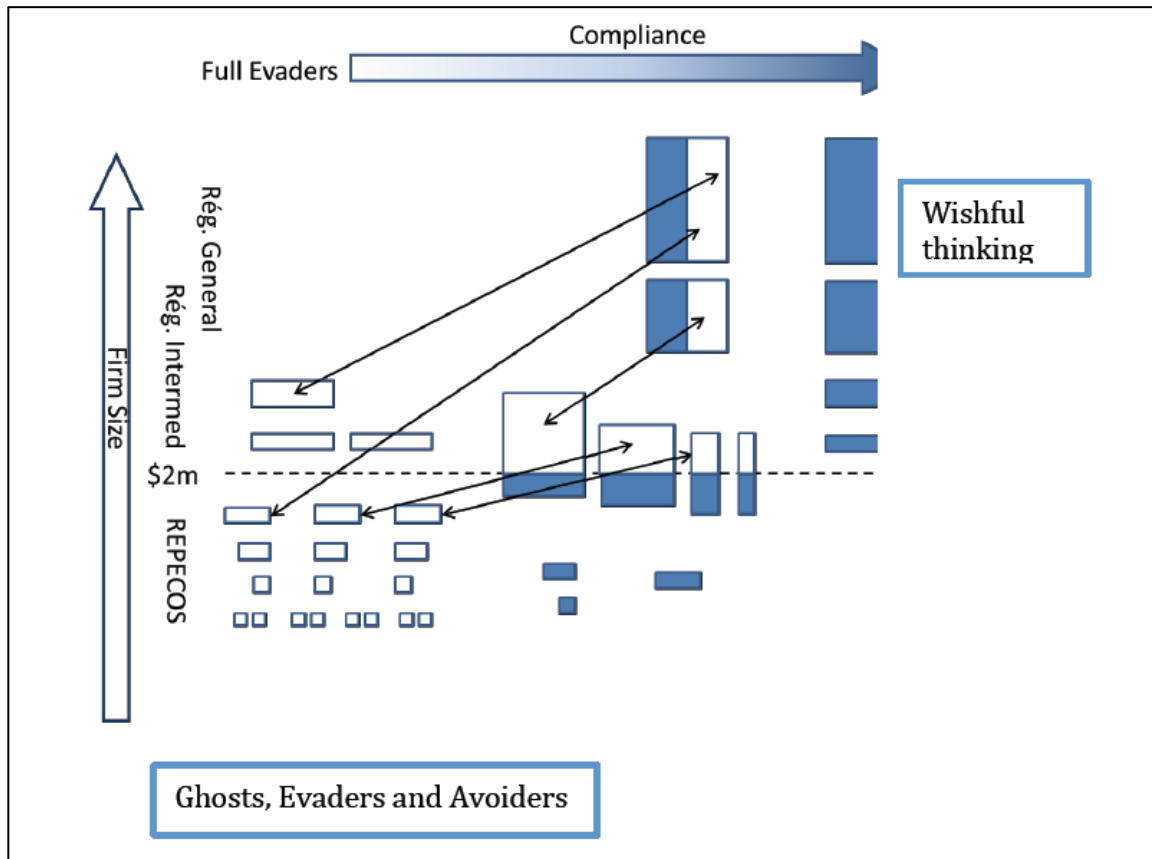
1. **Generate incentives to cheat through pricing discontinuities and arbitrage**, including multiple VAT rates for the same good with special regimes for border regions and the *maquiladoras* (Special Economic Zones, SEZs), together with holes in the direct taxes, and high marginal rates that add to the cost of doing business. Rents are generated due to multiple pricing regimes, SEZs, exemptions, tax preferences, and domestic zero-rating; and
2. **Absence of information on transactions or components of value-added**. These generate silos of tax information within tax groups, and across tax instruments. Breaks in the value-added chain, and presumptive mechanisms to estimate VAT liability used extensively — for example, in the Pakistan case, preventing the self-policing aspects of the VAT from operating. This is exacerbated by the weak or

²⁸ IMF and World Bank, G20 recommendations.

ineffective tax administrations for components of the tax system — which, in the Mexican case, was the small taxpayer regime that opened the flood-gates of informality.

The overall incentives to cheat in Mexico are summarized in Figure 6. Larger firms are higher up in the picture and are represented by larger rectangles. Similarly, more compliant firms are on the right of the picture and the degree of compliance is depicted by a greater extent of shading of the rectangle.

Figure 6: Incentives to Cheat in Mexico



Source: Ahmad, E (2014 and 2017).

Several cases can be identified:

- *REPECOS and adjusters*: Firms with turnovers below MEX \$2m could join the REPECOS regime for small businesses (the white boxes to the bottom-left in the chart). Very few of these pay any tax in Mexico. Although there is no legal registration threshold for the VAT, this became the de facto threshold. This group of smaller taxpayers is effectively

written-off by IFIs, but includes the “adjusters”, who legally reduce turnover to stay under the REPECOS threshold.

- *Enanos or ghosts*: In Mexico, there are many so-called “enanos”, too large to be eligible for REPECOS, but pretending to be eligible regardless. Further, since the enforcement of REPECOS is generally very weak, businesses know that if they pay something, they will keep the state government happy and keep SAT off their backs. These are the “ghosts” identified by Kanbur and Keen (2015).
- *Larger firms*: As argued by Levy (2008), there is a great deal of cheating by middle- and large-sized firms that hide transactions, turnover, employment, and profits by trading with enanos, truly REPECOS firms, ghosts, and other cheaters. These firms reduce payroll and profits taxes and avoid the VAT chain altogether.
- *Honest firms*: Some firms may not be able to cheat — international agencies believe — either because they are run by multinationals, or are too large to do so in an undetected manner. On the other hand, the large firms are often reflective of the best-connected “vested interests.” And multinationals are better able to avoid taxation than most of the large domestic firms, for example, by moving corporate headquarters to low-tax jurisdictions such as Ireland, Luxemburg, Panama, or the Bahamas. We have added this “honest” firm categorization to those in Figure 6 for the sake of completeness.

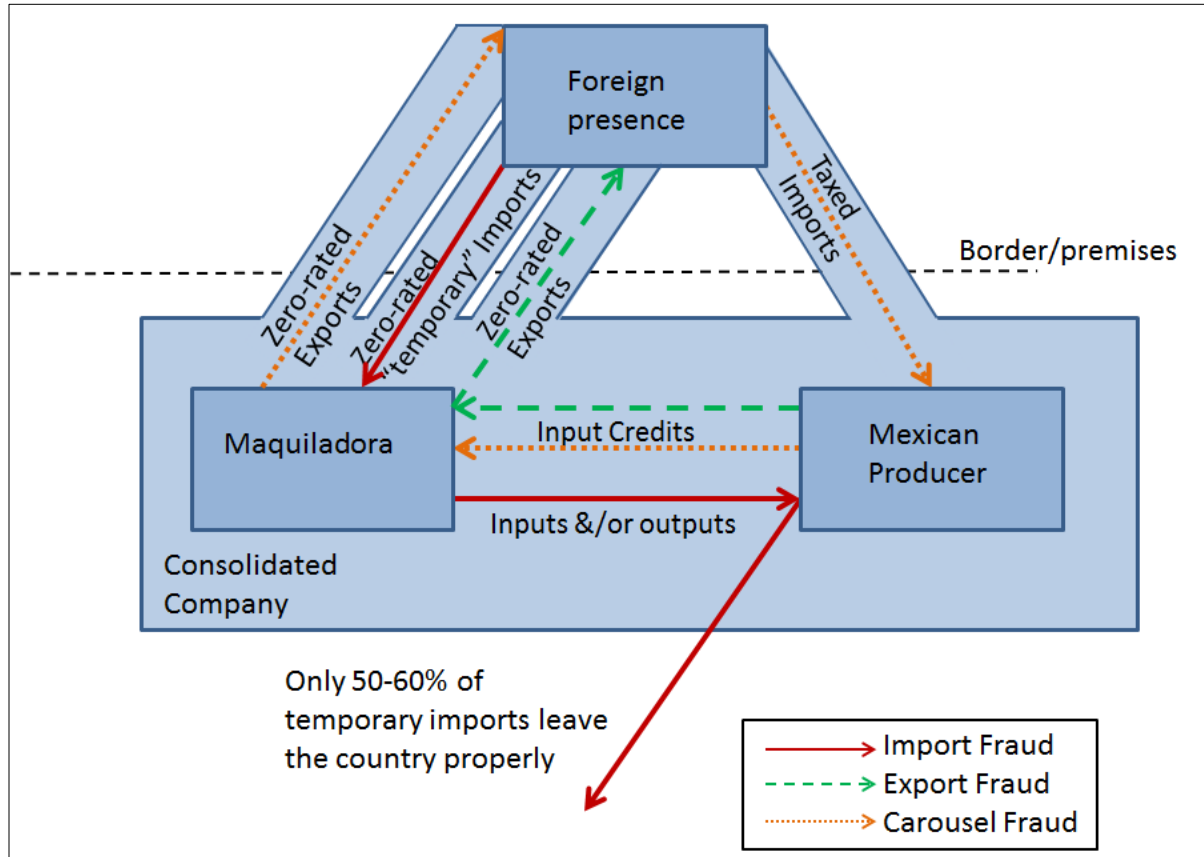
All the possible forms of VAT fraud are greatly facilitated by the existence of the maquiladora regime and particularly by the lack of transparency in that regime, which allows firms to hide and/or disguise activities and the ever-widening definition of a maquiladora, which allows more and more firms to enter the regime.

The revenue sinkholes created by the interaction between the maquiladoras regime and the VAT are summarized in Figure 7. The orange, dotted arrows depict a standard carousel fraud. Businesses that import inputs can pass on the input credits to other Mexican firms, which in turn can export and claim the input credits. This kind of fraud is greatly facilitated by the ability of maquiladoras to operate as part of a larger group of firms both within Mexico and abroad and with very few reporting requirements to the Mexican authorities.

The green, dashed arrows depict a more straightforward export fraud in which a pair of related firms, one maquiladora and one outside the regime, collude to claim an input credit for a transaction that never occurred. Finally, the red, solid arrows show the most pernicious fraud. Under the maquiladora regime, bonded imports are permitted without incurring a VAT liability provided the transformed outputs are re-exported. These inputs or their resulting transformed outputs are then passed on to another Mexican company which then sells them in the domestic market without ever having paid the VAT on the imported inputs. Customs data show that only

an estimated 50-60 percent of the inputs imported under this scheme ever actually leave the country.

Figure 7: The Maquiladora Sinkholes



Source: Ahmad (2017)

A comparison of the profit distributions declared to the tax administration versus those implied by the Economic Census data (which may itself be an underestimate) provides clues to the extent of possible under-declarations and their components. The details are highlighted in Ahmad, Pöschl, and Zanola (2017), and provide support for the Levy hypothesis, but show that there are both the incentives and ability to cheat in firms of all sizes. The smaller- and middle-sized firms do not appear to have a monopoly on cheating the tax administration.

Under the circumstances, there are unlikely to be many firms that would not take advantage of the opportunities to maximize profits. To expect that raising the VAT registration threshold per se would raise revenues would be wishful thinking indeed.

3. Mexico's 2013 Package of Reforms

The package of tax reforms at the end of 2013 is instructive since all of the main taxes were reformed together rather than treated separately. This was designed to “block the holes in the tax system”. The interactions between a reformed VAT and administration and the income taxes were particularly important. Regarding administration, the principal components were to integrate the small taxpayers’ regime with the regular tax system, replacing REPECOS with RIF — the integrated small taxpayer system. This required the small taxpayers below the Mex \$2m threshold to use a simple cash-flow electronic accounting package, and issue electronic invoices. All taxpayers were accordingly brought under SAT registration, compliance, and audit. The VAT itself was reformed, with the anomalies removed, retaining the standard rate and eliminating the special rates for the border regions. The idea was simply to bring the whole value-chain in the economy under SAT supervision. The ISR was rationalized, but with the rate structure retained. With the full VAT in operation and electronic invoicing — including for small taxpayers — provided, the room for large firms to engage in “hidden transactions” was effectively blocked. Consequently, there was little need to maintain the minimum tax, IETU, and it was abolished, reducing the administrative burdens on taxpayers. The only additional tax was the introduction of a carbon tax or petroleum excise, above an adjustment of petroleum prices to accord with world prices.

The political economy of the reform was important, and the losers with respect to one major tax were offset by gainers on others. It was supported by all parties, because the “package” would enhance the basis for long-term growth, minimize the impact on the poor by excluding taxes on non-processed food, and create a basic minimum pension that did not lead to labor market disincentives or a poverty trap. This ensured that the most vulnerable, especially in the urban areas, would not be affected by relative price changes. Since unprocessed food does not enter the middle of the production chain, the information flows that the reform focused on were maintained. The only compensatory measure was the basic pension for those above 65 years of age who did not have alternative occupational pensions. The typical IFI-supported recommendation to resort to the CCT, or *Oportunidades*,²⁹ was not utilized to facilitate the adjustment in energy prices.

²⁹ Indeed, *Oportunidades* had a negative impact on incentives to participate in the labor market, generated no reduction in poverty in the poorest state, and had been open to diversion of funds in key states, as seen in 2012. It was replaced in 2014 by *Prospera*, which focused on training, supported small business, and was designed to encourage participation in the labor market.

4. Outcomes of the Mexican Reform Package

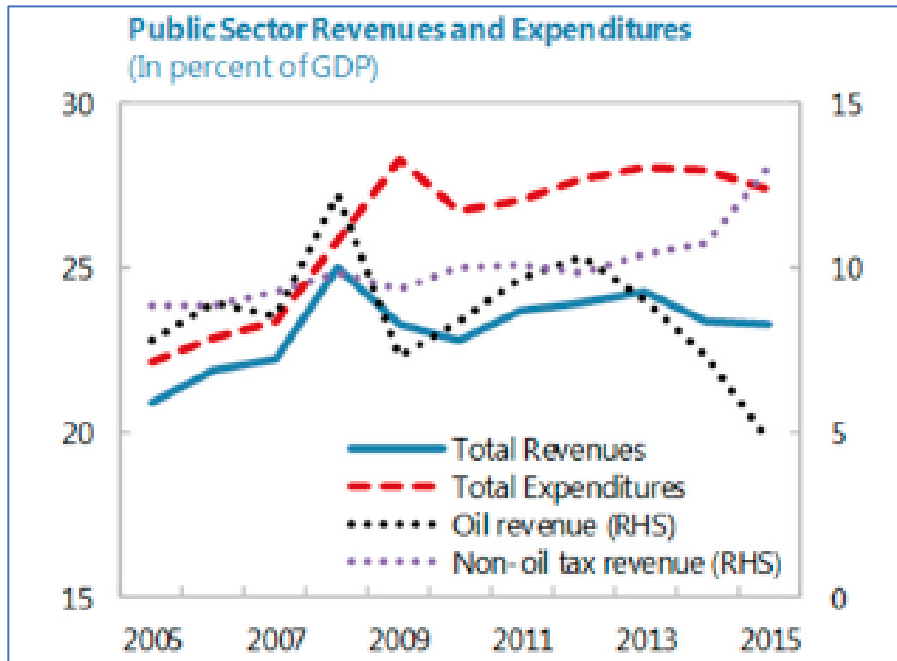
The outcomes of the 2013 reforms exceeded expectations, and the revenue increase within three years compensated for the loss of petroleum revenues due to the decline in international oil prices.

Despite the period of low growth affecting much of Latin America, largely due to the depressed prices for natural resources, particularly that of petroleum in the case of Mexico, the 2013 tax reform largely offset the fall in petroleum revenues, **raising an additional 4.2 percent of GDP** with no increase in the rates of the major tax instruments (see Figure 8).³⁰ The exception was in the case of the carbon tax/excise that raised an additional 1.4 percent of GDP in 2016 relative to the excise in 2013. Although, during the period of depressed activity, the VAT increased by around 0.6 percent of GDP, the biggest gains were in ISR income tax that increased by 1.4 percent of GDP by 2016 (see Table 2). These improvements helped maintain the level of public expenditures at pre-crisis levels.

A major part of the increase in revenues came from the very significant expansion in the number of registered taxpayers through the small taxpayer regime (RIF) that required issuance of electronic invoices. This generated an extra 18.3m taxpayers above the 2013 level of 38.5m (see Figure 10). This substantially closed the loopholes described in the preceding chapters. This suggests that a broader perspective on tax administration and tax policy is needed in order to achieve the most efficient results.

³⁰ Mexican Ministry of Finance and Public Credit, Juan Rebolledo Márquez-Padilla, June 2017.

Figure 8: Mexico: Public Sector Revenues and Expenditures



Source: IMF (2016) Mexico: Country report 16/359

Figure 9: Tax Revenues (2010-2016)

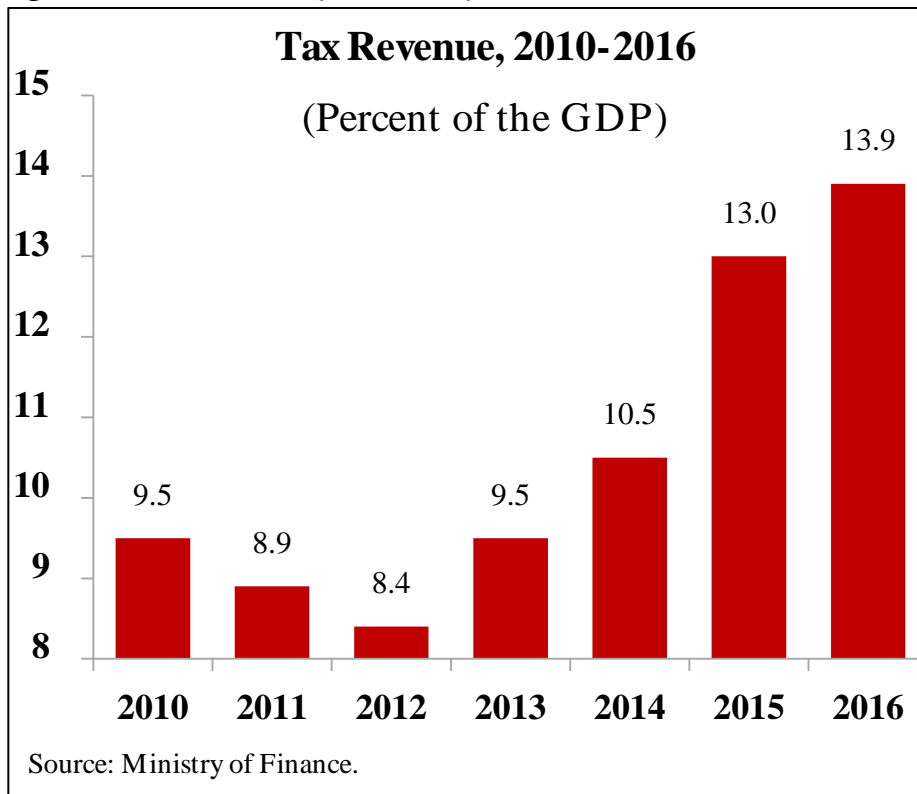
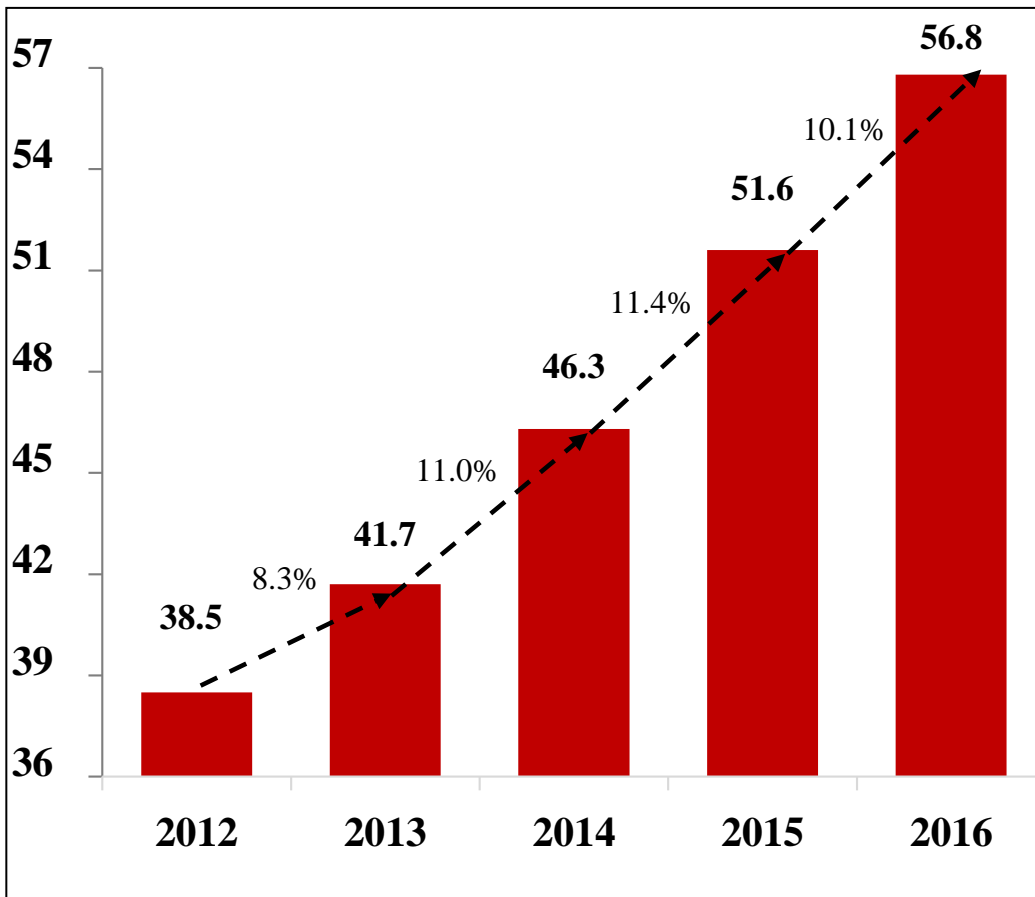


Table 2: Tax Revenue Growth by Tax Type

Tax Revenue Growth by Tax type, 2013-2016			
(% of GDP)			
Tax Revenue	Income Tax	VAT	Excise Tax
4.2	1.4	0.6	2.1
Source: Ministry of Finances			

Figure 10: Increase in the Number of Registered Taxpayers



Source: Ministry of Finance

5. Lessons for Emerging Market Economies

Despite the success of the 2007 reform package, **the repeated failures to fix the VAT and other main taxes provided important “learning” opportunities for Mexico.** These led in large part the success of the 2013 package, and also offer significant lessons for other emerging-market economies.

1. **It is critical to design reforms to take account of gainers and losers, among levels of government as well as households.** The reform to the transfer system in Mexico in 2007 as part of the IETU/ISR reform paved the way for the 2013 reform package that could then focus on fixing the taxes, and the interactions between the main taxes—particularly the VAT and the CIT. The offsetting transfer mechanism for the new tax system was also the basis for the 1993/4 reform package in China.
2. **One the most important lessons is to establish a complete VAT (with no major breaks in the value-added chain) to reduce the cost of doing business and to generate information to stop cheating in all major taxes,** even if this may result in a slight overall loss of revenues, as was also the case in China in 2016.
3. **The tighter flow of information from the VAT also makes it harder for firms to cheat on their income taxes** (the value added at each stage is the additional wages and profits generated). Thus, although the VAT revenue enhancement was positive in Mexico, the biggest benefit was in terms of the improvement in the income tax collections. In order to achieve the tax-on-tax synergies, it is necessary to both achieve the full value-added chain (including a better integration with the small taxpayer regime that may use a simple cash-based accounting package, as provided by SAT in Mexico), but also the strengthening of functional capabilities of the tax administration to be able to match the information generated from different sources, together with a robust risk-based audit capability that would operate in common across many tax heads. While a special focus on large taxpayers may still be warranted, the integration of information from small taxpayers is critical to close loopholes, and has implications for the legal and de facto thresholds for the VAT.
4. **A tighter flow of information from the VAT can also help address the base-shifting problem associated with large multinational companies.** The VAT, for instance, helps emerging country (EC) governments to evaluate the extent of profits generated by corporations such as Google or Apple in the major European countries, and the extent of CIT avoided. For instance, the reductions in the CIT in the UK (to 20 percent currently, and scheduled to go down to 17 percent) has not prevented Apple from paying virtually no tax in that country, and Google paying just 3 percent CIT over the past decade, counting penalties and negotiation. There is clearly scope for tightening the legal

framework determining the CIT base to prevent such egregious avoidance, even in countries with efficient tax administrations.

5. **SEZs should be designed to maximize agglomeration effects and attract private investment, without exempting transactions from the VAT. The potential for leakage is particularly high, particularly in countries with relatively weak tax and budgetary management systems.** The main objective of creating a special zone or “hub” is to provide synergies between public investment and services to ensure that there is uninterrupted supply of electricity, water supply, sewage, as well as education and health facilities to “attract” private investment (both foreign and domestic) to benefit from agglomeration effects, locational advantages, as well as skilled labor. Tightening of corporate tax rules because of the “base shifting” phenomena is an advantage, as this will ensure that production actually takes place in these “hubs”, and that they are more than vehicles for firms to “show profits” as in Ireland or Panama. The VAT is then critical as an informational and control mechanism in SEZs, and will not be expected to raise revenues, as much of the output from SEZs would be exported and subject to zero-rating for VAT purposes. This consideration would again modify the traditional approach to the VAT in SEZs, which exempts all activities in those zones. Indeed, the completion of the VAT chain makes the whole country a SEZ. For instance, the new international airport in Querétaro has led to a major influx of investment (Aerospace, Nissan, BMW HQ), thereby illustrating that infrastructure development (a new airport to complement the existing motorway links to Mexico City and the US), a clean city environment and absence of congestion, and a university with skilled workers, are critical ingredients in making new “hubs” functional and well integrated with the rest of the economy.
6. **The control mechanism associated with the information generated by the VAT is also an important tool to monitor investment and production in the natural resource sector,** including petroleum. This requires a modification of the typical recommendation made by the IFIs in relation to the VAT, which permits VAT on capital goods to be refunded more or less immediately. Unfortunately, this removes the lever to extract information. The leakages from the Nigerian petroleum sector, documented by the Ribadu Commission Report,³¹ could be plugged by utilizing all possible sources of information, of which the VAT is an important component. The more appropriate formulation, especially in countries with high levels of informality, may well be what is practiced in China — to permit the VAT on capital and other inputs to be offset against VAT liability on outputs, or zero-rated when exports are verified. Of course, as correctly recommended by Professor Ribadu, it is also important to track the flow of funds,

³¹ Nigeria, 2012, *Report of the Petroleum Revenue Special Task Force* (Chairman, Professor Ribadu), Abuja.

including the interface between the management systems of the Petroleum Company and the government's Financial Information Management System (IFMIS) as well as that with the Treasury Single Account (TSA).

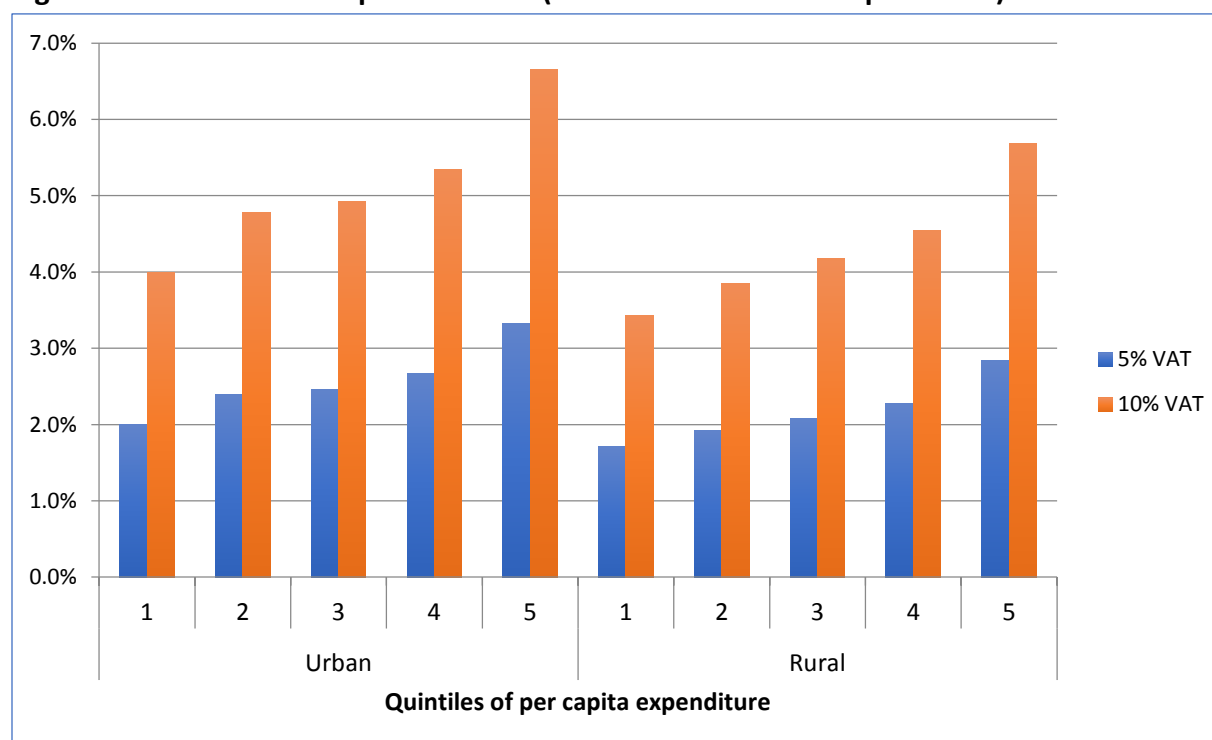
7. **While the overall distributional effects will depend on combinations of taxes and social policies, a careful design of the VAT itself will minimize the need for compensatory measures.** For instance, excluding non-processed basic staples (wheat, rice, maize) in different countries would go a long way towards “protecting the poor” (as argued by Ahmad and Stern (1991) in the context of India and Pakistan). This was also the approach taken by Mexico in its 2013 reforms—as the intergovernmental implications were minimal as a result of the reform to the transfer system in 2007:
 - a. Empirical work in Timor Leste, suggests that if the authorities were to implement a VAT which exempts non-processed (rice, corn, and cassava) a single rate VAT would still be quite progressive (see Figure 11; Ahmad, and Breton, 2016—see also Ahmad and Stern, 1991);
 - b. The Mexican experience shows also that it is not always appropriate to utilize CCTs, such as the former *Oportunidades* program, to accompany tax reforms, such as the VAT, or energy price reforms, including the introduction of a carbon tax. CCTs may be justified as stand-alone programs to support the poorest groups in society, usually in rural areas as in Pakistan³² or Mexico, but the major concern is typically for poor and fixed-income workers in urban areas;
 - c. The Mexican example further shows that the opposition to tax reforms in multilevel countries comes from powerful interest groups as well as lower level governments that might be affected by changes in assignments or transfer and revenue-sharing arrangements. This is why the proposed adjustment in *Oportunidades* in 2010 to facilitate the VAT reform was rejected. In 2013, the VAT was reformed and a carbon tax simultaneously introduced, and the CCT was not utilized;
 - d. The only compensation together with the package of tax reforms in 2013 was the minimum basic pension. But that did not create labor market distortions or generate a “poverty trap.” Indeed, the energy price adjustments, as proposed in Indonesia, are likely to create the fiscal space for efficiency and equity enhancing health care coverage.³³

³² The Benazir Income Support Program in Pakistan was modelled on Mexico's now-defunct *Oportunidades* program, and largely targets poor rural households. It was implemented in 2010 with the support of the World Bank and bilateral donors such as US AID and DFID, to support a VAT reform, which has been effectively abandoned.

³³ See Teguh Dartanto (2017).

8. **A carbon tax, and excises more generally, need to eliminate “implicit subsidies” and prevent a “race to the bottom”.** There are two components in the Mexican or Indonesian context. The implicit subsidy argument suggests that the carbon tax should be imposed above a reference price such as the world price for, say, petroleum products. This ensures that there is no implicit subsidy, and it generates positive revenues as well as incentives for firms and households to adjust the choice of techniques and consumption away from environmentally damaging products. The “piggy-back” on a carbon tax provides local flexibility to implement a higher-than-national rate, if needed, and also makes the tax an own-source of revenue that could be leveraged to access credit.
9. **Multilevel issues are important in most tax reforms.** There is a case for a higher carbon tax in the more congested parts of metropolitan areas such as Mexico City or Jakarta, than in remote cities. However, assigning own-source taxes to states — such as the vehicle tax, *tenencia*, given the system of “gap-filling” transfers — has not had a very successful track record, as discussed above. Consequently, a piggy-back on a central base and administration would be indicated to prevent a “race to the bottom.” This also provides an own-source of revenue for sustainable access to credit and financing of infrastructure. Similar issues apply with respect to “excises” meant to counteract health hazards, particularly with respect to the traditional “bads”, such as tobacco and alcohol. However, in Mexico, there has been a sharp increase in obesity and diabetes, leading to an increase in health expenditures. While national taxes on sodas and confectionary are appropriate, and were introduced in the 2013 reforms, there may be a case also for higher taxes in the metropolitan areas where the consumption of such “bads” is greater. This brings us to the multilevel issues relating to governance that are critical, whether the focus is on federal countries like Mexico or India and Pakistan, or unitary states such as China and Indonesia.
10. **Tax and spending issues need to be considered together.** In East Asia, the ageing of populations is putting pressures on health budgets. Health care costs are significantly influenced by access to clean water and sanitation. These are typically local functions, whether financed from local funds or earmarked transfers. In both cases, accountability at the local level is critical—and this involves both full information on spending as well as appropriate incentives for local governance. This links the spending directly to the presence of “own-source” revenues at the local level (Ahmad, Brosio, Gerbrandy, 2017). This issue is taken up in further detail in the next sub-section.

Figure 11: Timor-Leste: Impact of a VAT (% of total household expenditure)



Source: Ahmad and Breton 2015

V. Multilevel governance for sustainable development

Why should multilevel governance matter? This is because **most of the SDG targets are implemented at the lower levels of government, in both federal countries and unitary states.** This applies particularly to basic education and even critical elements of health care. Even government-financed, wide-area or cross-jurisdictional infrastructure needs local connectivity and public services to function efficiently.

Institutions and the policy framework at the sub-national level matter as much as at the national level. And as we have seen in the discussion of national taxes such as VAT and CIT, the incentives to cheat that arise from split bases can lead to a failure of overall policy design, even if these were supported by decades of technical assistance, as was the case in Pakistan.³⁴ Quite often the technical support has resulted in IT solutions with inadequate attention to the context in which “expensive” systems are being developed or purchased, and this applies to both revenue generating and budget-related organizations. Consequently, in many cases, there is a

³⁴ For a review of technical assistance to Pakistan in the fiscal area, particularly with respect to tax policy since the late 1980s, see Ehtisham Ahmad and Azizali Mohammed (2017).

semblance of progress, but the actual institutions continue to atrophy as the previous manual checks and balances cease to be relevant in a more complex society, with a negative impact on governance, especially at the lower levels of administration

1. Who does what, and what are the outcomes?

The issue of spending assignments among different levels of government represents a complex set of issues that are beyond the scope of this paper except to the extent to which they influence the outcomes relating to the SDG process. The “normative” approach to spending assignments is greatly influenced by the US model, and this is largely reflected in the EC’s subsidiarity rules. The latter requires that spending be sent down to the lowest level that can effectively manage the function. Thus, the expectation is that basic education will be provided at the local or municipal level. The effects of this “normative” approach are profound, as countries as diverse as Indonesia and Pakistan have sought to assign the function entirely to lower levels of government. In Indonesia, the decentralization reforms in 1999/2000 pushed the function down to the district/municipal level (third tier). In Pakistan, the 2010 18th Amendment to the Constitution gave exclusive jurisdiction over education to the provinces (second tier). Unfortunately, the failure to address the overall revenue envelope has turned the reassignment into an unfunded mandate.

An alternative “positive” or political economy approach (see for example Ahmad and Brosio 2015 and Lockwood 2015)³⁵ would ask whether the spending assignments, however chosen and often through politically driven considerations, generate the necessary incentives to be effectively operative. This involves full information on the costs of provision and the associated liabilities. A critical element in the functioning of the assignment is the availability of local own-sources of revenue at the margin (above transfers that close vertical and horizontal gaps). There have been many governance failures in competitive models in recent years — for example, in the crisis in Europe (Ahmad, Bordignon, and Brosio, 2016). Even in administrative progression models, that are relying increasingly on measuring performance for assigned functions (e.g., experimentation in the Chinese province of Zhejiang), just focusing on outcomes without full focus on costs, including recourse to credit or debt by the relevant jurisdiction, sets up inaccurate assessments and incentives to rely increasingly on debt for future progression.

In this section, we focus on the incentive structures that lead to good governance. This includes the incentives for accountability and efficient use of funds, and information on the allocation of money and how it is spent.

³⁵ Ahmad and Brosio (2015), *op cit*, and Lockwood (2015) in Ahmad and Brosio (2015).

2. Own-source revenues as drivers of structural change

Own-source revenues are needed to establish hard-budget constraints at the subnational level (Ambrosanio and Bordignon, 2015). This is mainly because limits and sanctions associated with borrowing rules are not credible without the marginal cost of borrowing falling on the jurisdiction that incurs the liability. If another jurisdiction bears the cost of liabilities incurred, then the incentive is to spend without consideration of efficiency or to minimize the tax burden on local residents. The interjurisdictional (yardstick) competition model breaks down, and the potential “padding of costs” at the expense of the central government opens the doors to rent-seeking. This applies in unitary and federal states alike. The proviso also applies in models where the local administrator is appointed by the central government, as in China (see Ahmad 2017; and Ahmad, Niu, and Xiao, 2017), except that the penalties would have to accompany the official throughout his or her career path, even if no longer posted in the jurisdiction concerned. Notice that in both cases, the own-source revenues are necessary conditions for better governance but are far from sufficient.

As seen in Mexico, **there is a resistance on the part of the state-level governments to accepting own-source revenues** — for example, with respect to the PIT-piggy back that has been an option for over a decade, as well as to the more surprising failure of reassignment of the vehicle tax in 2010. **Clearly, gap-filling transfers are preferred to own-source revenues, as there is no political cost to generating the additional funds.** Even shared revenues are preferred to own-source revenues, as the political costs are effectively borne by the central government. But there is a cost in the effective outcomes in relation to public services, and this is clear in the case of education. Much of the funding for education came from central government-earmarked transfers while implementation was at the state and local levels. Consequently, the center did not even know the number of teachers that it was financing and whether or not they knew how to teach. Given the central role of education, the federal requirement that teachers take a proficiency test in 2014 was strongly resisted, and had to be enforced with an effective centralization of the function.

It is important to stress that shared revenues and transfers do not constitute own-source revenues needed for responsible access to credit for investment. Even taxes nominally under the control of subnational jurisdictions — for example, in India where it is proposed that the VAT base be co-occupied with subnational administration — will not strictly qualify as own-source if the states cannot control the rate structure. However, State control over VAT rates would create a nightmare for firms, and would be antithetical to the creation of a common market. Thus, the local own-source revenues need to be chosen with care.

Gap-filling transfers negate the positive incentives that are generated by own-source revenues, and remove any potential for tax increases — for example, to repay local debt if a higher-level jurisdiction at either national or supranational level can be tapped to meet additional spending needs, as the political costs of the additional spending are not incurred by the local jurisdiction. Equalization transfers are not gap-filling if standardized factors of need and revenue bases are used, as these are not under the control of the recipient jurisdiction. However, if actual subnational spending and revenues are used, the “equalization” system becomes another form of “gap filling,” as the local jurisdiction can begin to manipulate it, either by ramping up spending or reducing taxes that bear on their populations.

3. Property taxes for sustainable and clean cities

Property taxes have long been regarded as the main source of financing local revenues, particularly given the experience in the United States. High property taxes are also synonymous with good public service delivery. The taxes track property values due to the quality of public education in any given jurisdiction. Mobility plays a major role in this story, as taxpayers vote with their feet and move to jurisdictions that provide better education, even if the resulting property tax rates are higher. This is a key feature of the political competition models. However, for the system to work, there must be a clear delineation of property titles, as well as a real-time adjustment for changing property values and costs of service delivery. Unfortunately, these preconditions do not exist in many parts of the world, and the property tax is moribund in many parts of Africa, Latin America, and Asia. Experiments in the Chinese cities of Shanghai and Chongqing to introduce versions of US-style property tax have not been very successful, given the difficulty in establishing who owns what and how the property values are changing.

The Indian property tax has long been in use but has never generated much revenue. However, local public finances need significant restructuring if they are to be able to provide for a modicum of basic services and sustainable access to financing for local investment for clean cities and sustainable growth. This applies equally to spending, revenues and transfers, although the focus here is primarily on the property tax arrangements.

The Indian property tax is based on the standard “ownership and valuation model” common in Western countries. The valuation is based on an estimate of the annual rental or capital value of the property (Valuation (Metropolis) Act of 1869). However, as pointed out in Rao (2012), the information base on the property tax in India is severely deficient and unreliable. This is partly because the cadaster is woefully out of date, and the valuation system has not kept pace with market price changes.

An alternative is to move to a presumptive basis for taxing properties based on location and size to try to approximate true values. This reform was initiated in Patna in 1992/3 but failed to yield additional revenues. A similar outcome occurred in Delhi. But in Bangalore, the application of presumptive estimates led to a virtual doubling of property-tax revenues between 2007/8 and 2008/9. However, the typical problems with arbitrary adjustments to presumptive measures have appeared recently. The 40 percent increase in valuations due to the new airport led to inequities within Bangalore, and had to be rescinded, with increases capped at 25 percent. Fine-tuning the valuations to specific neighborhoods might yield more accurate changes but open the system to possible collusion and rent-seeking.

A true self-assessment system, as implemented in Bogotá in 1994 by Mayor Antanas Mockus, also generated a substantial and sustained increase in property tax revenues, with the cadaster and valuation basis retained as a minimum. However, the system relies on relatively good information on local property transactions to operate the sanction of forcible purchase of the property at 1.5 times the declared value. There is no need for a heavy-handed use of the sanction, and one or two examples suffice. However, there is a danger that the sanctions might be misused for “political” purposes. Nevertheless, the Bogotá system is still in operation despite changes in city administrations.

A final alternative is to side-step the valuation system altogether and link the property tax to size, location, and cost of public services delivered. This is the Marshallian “benefit tax” proposal that overcomes political resistance and links the taxes paid to services provided (see Ahmad, Brosio, and Pöschl 2015). The ownership issue can also be finessed (this is relevant for both China and India) as the tax falls on the occupant rather than the owner, unless the property is vacant. This is also the current UK system; the traditional property tax was abandoned by Margaret Thatcher because of the difficulty of keeping up with valuation changes.³⁶ It is important to note that the valuation requirements are no longer binding in a system that links property use to the cost of local services. However, there needs to be an accurate map of properties. The Indian Geographic Information System can be used to map the actual properties. Again, ownership is not critical as the tax-benefit system is paid for by users, and not owners (unless the property is vacant, as in the UK).

Satellite imagery can prove a very useful tool, and is now highly developed and readily available in most parts of the world. This also cannot be easily evaded and can avoid the risk of corruption in measuring and recording property areas and structures. **Another new area for**

³⁶ It is noteworthy that the UK raised more in property tax (4 percent of GDP) than the US with its traditional property tax (around 3.5 percent of GDP). See IMF GFS Yearbook, 2013. The 2015 Yearbook shows revenues as being slightly lower, at 3.5 percent of GDP.

research being examined at present is the use of block-chain database technology for quick registration of property transactions. In due course, this will also become a tool in prevention of income tax cheating (Ahmad, Brosio and Gerbrandy, 2017). This has useful applications also in monitoring forestry and natural resources, as well as stopping illegal logging and mining.

There remains, however, a very close link between own-source taxes, transfers, and expenditures. This is partly related to the overall resource envelope, but also the incentives that face local officials. Own-source revenue handles are needed for accountability for local spending that comes with hard budget constraints. But transfer design also matters. In India, where spending assignments vary by state, the revenue assignments differ also. For example, many states have prohibited the use of *octroi*, or taxes, on domestic trade that formed a significant part of local revenues, at least since the enactment of the Government of India Act in 1935. But in most cases, there were no additional sources of revenues to assign to the local governments in lieu of octroi, and the result has been unfunded mandates, and greater transfer dependency. This, of course, generates perverse incentives, as local governments are loath to improve revenue collections for fear of losing “reliable” transfers that carry no local political costs. This perpetuates the culture of “fiscal dentistry”, or transfers to fill deficits, that used to be pervasive in India at all levels (Rao, M. G., 2002).

The GST reform being introduced in India effectively removes the most important own-source tax handle in the hands of the states as they would no longer be able to change rates if needed. Alternative own-source revenue handles for states, that will have implications for the mega-metropolises (above 10 million inhabitants) also, could include consolidating the split base for the PIT in the same spirit of consolidating the sales tax base for the GST, and creating a state/metropolitan piggy-back. Note that mega-metropolises need to be treated differently from smaller cities because of the wide area functions that are needed in, for example, Mumbai, Delhi, Karachi, Jakarta or Beijing, Shanghai, and Guangzhou. The piggy-backed arrangements could be extended also to the city level, by creating bands within which a city may be able to set its own marginal tax rates. No local administration is needed since, as in the US, the main administrative functions could be handled by the Internal Revenue Service (IRS), or national tax administration. The use of local third-party information would help to expand the coverage of the PIT, to better capture the fastest-growing income base in the country. As mentioned above, a similar approach could be adopted vis-à-vis a carbon tax designed to stimulate structural change, with a state/local piggy-back on a nationally determined base with IRS (or equivalent) administration (Ahmad and Stern 2011). However, the incentive system inherent in the intergovernmental transfer system is critical in ensuring that own-source revenues are used if the handles are provided to lower-level jurisdictions.

Both piggy-backed tax options would provide significantly greater revenues to local governments than the meagre 0.4-0.5 percent of GDP generated from local resources (own-taxes) and 0.27 percent of GDP in transfers noted by Bird and Rao in 2011.³⁷ But these new instruments would also provide more revenues to the richer areas. Consequently, there would be a need to establish a state-level “equalization framework” to enable cities to provide similar levels of public services at similar levels of tax effort.” This would replace the ad hoc system of state transfers that is so damaging to local tax collection incentives.

This section emphasizes that a proper system of local own-source revenues is needed before cities are able to borrow for investment purposes in a sustainable manner. This linkage is important to align incentives for a clean environment. It is also important to recognize that PPPs represent local liabilities, and the repayment schedule needs to be linked to own-source revenue generation. Otherwise, there is a clear and present danger of a buildup of liabilities that might go unnoticed until there is a crisis, as was the case in Europe with the most recent crisis (Ahmad, Bordignon, and Brosio, 2016).

VI. Concluding remarks

This paper has focused **on the choice, assignment, sequencing and administration of taxes, or groups of taxes, and spending measures to meet the SDGs.** We draw on the successful “packages” of reforms in China in 1993/4 and in Mexico in 2007 and 2013. This is juxtaposed against repeated failures in Mexico, and in Pakistan, from the early 1990s onwards.

The principal lessons are that:

- **The political economy of gainers and losers matters**—both involving lower levels of government as well as interpersonal considerations. The lessons from a unitary state (China) were relevant in a federal context (Mexico) and vice versa. In some cases, ensuring that the poor have employment opportunities may be more important than “protecting” the poorer regions.
- **Tax reforms must balance the effects on producers and investments, revenue considerations and consequences for households in different circumstances.** This does not imply that one instrument, such as the VAT, should meet all criteria. Thus,

³⁷ Bird, Richard and M.G., Rao (2011). See also, Rao, M.G. (2012) “Property tax reform in India,” NIPFP Working Paper.

combinations of taxes are likely to be needed—as seen in the 2013 Mexican reforms. The focus in each case is to ensure that growth and investment potential is not harmed.

- **Information from taxes to address cheating is critical.** The key instrument in this regard is the VAT that impacts on the Income Taxes, Payroll Contributions, Excises as well as Natural resource levies. However, third party information is critical to expand the base of the personal income tax that does not perform well in emerging market and developing countries. A key element of this is the pattern of asset holdings, particularly property. Consequently, the property tax could be seen as an instrument to block cheating in the PIT. **Non-standard tax administration methods are likely to be needed, particularly regarding the small taxpayer regime and property taxes.**
- **While SEZs benefit from agglomeration effects, there is no need to provide VAT exemptions.** Indeed, a unified VAT regime would encourage the better utilization of linkages with the rest of the economy—particularly with respect to supply chains and employment generation.
- **Own-source revenues generate incentives for subnational accountability.** Control over rates at the margin is more important than actual collection. Indeed, direct contact between the tax administrators and taxpayers should be avoided to stop rent seeking, and modern functional methods of administration need to be further developed.
- **Direct linkage between taxes and spending, especially at the local and city level, is critical for both accountability and good governance, and sustainable development.** This again is an area for important additional work.

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