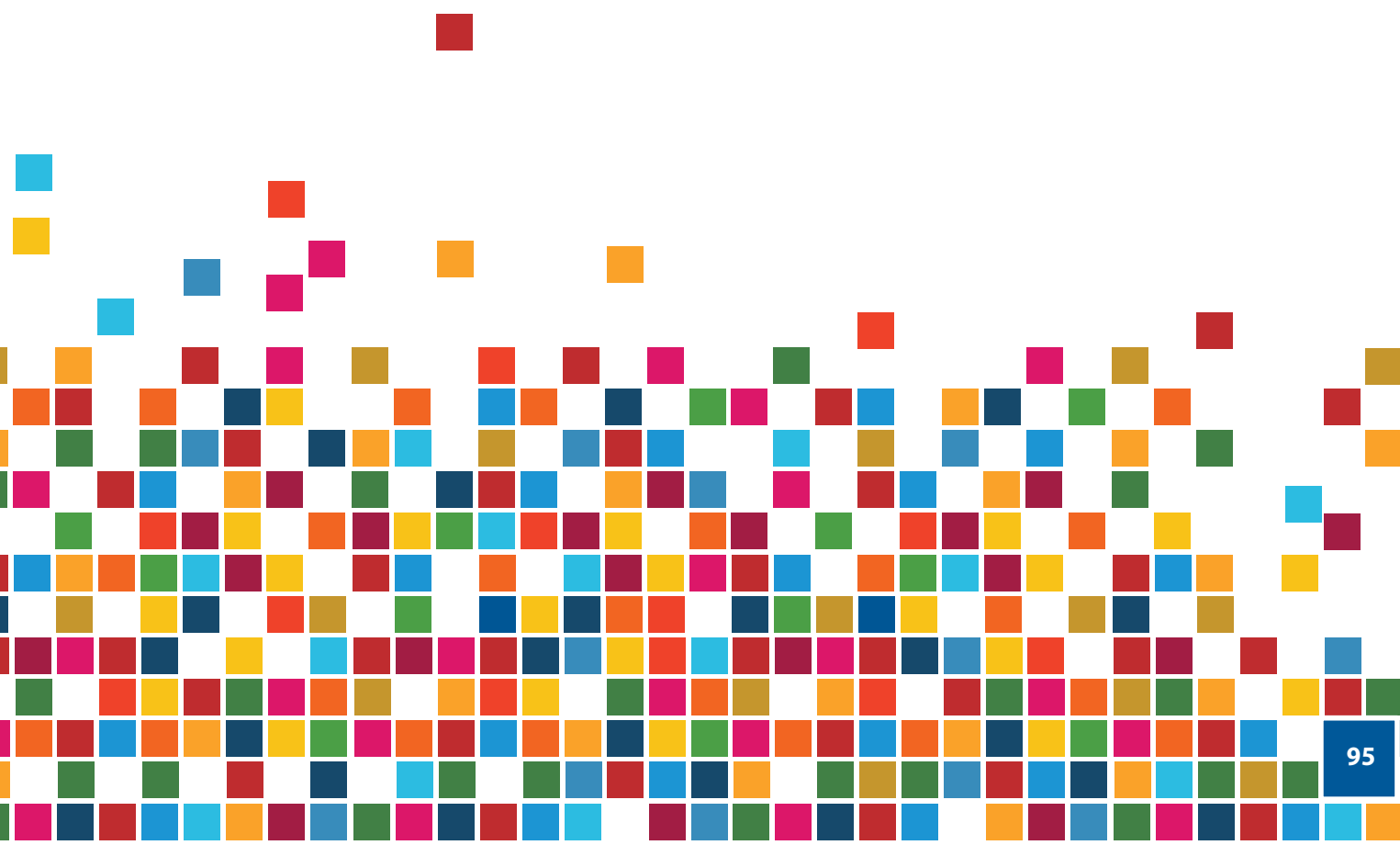


# CHAPTER 5

# TAX ADMINISTRATION IN AFRICA



**A**frican countries have made extensive efforts to improve the effectiveness and efficiency of tax administration. These efforts need to be sustained and strengthened, especially in promoting tax compliance.

While each country also needs to address its unique challenges in tax administration, all of them need to strengthen the use of data to inform decision making and improve the efficiency and effectiveness of tax administration. One promising tool to guide these efforts is the Tax Administration Diagnostic Assessment Tool (TADT).

Countries should take full advantage of the opportunities for greater efficiency and effectiveness offered by digitalization. So far, 18 African countries have introduced electronic tax filing and payment systems. Rwanda was able to boost tax revenue by 6 per cent through such measures, suggesting the large scope for revenue gains in countries that have not yet done so. In South Africa, e-taxation lowered the time (by 21.8 per cent) and cost (by 22 per cent) of complying with the value-added tax (VAT). In Kenya, digitization of VAT operations helped identify data inconsistencies and raised VAT collections by more than \$1 billion between 2016 and 2017.


## INTRODUCTION

Tax administration is the execution of the core activities for collecting taxes:

- Identifying “taxable subjects” (individuals or business enterprises).
- Assigning unique identifiers that make it possible to recognize them in future.
- Creating a system of records on taxable subjects.
- Establishing the procedures for taxable subjects to transfer to the tax agency the information needed to assess their tax liabilities (“filing”).
- Regularly assessing tax liabilities.
- Billing taxpayers accordingly.
- Collecting payments.
- Dealing with non-payments, arrears and refunds.
- Auditing the tax assessments of samples of taxpayers.
- Resolving disputes between taxpayers and tax collectors.

While there is limited quantitative information on the comparative performance of national tax administrations, data in the annual *Paying Taxes* report of the World Bank and PwC (2018) give a sense of the performance of African countries. The picture is mixed.

In 2016, Africa had the highest number of tax payments averaging 35.4 payments a year, compared with the global average of 20.6 (table 5.1). Africa also had the second longest compliance time for major taxes (profit taxes, labour taxes and mandatory contributions, and consumption taxes), at 285 hours compared with the global average of 240 hours. The high number of



**In 2016, Africa had the highest number of tax payments, averaging 35.4 payments a year, compared with the global average of 20.6.**

TABLE 5.1. REGIONAL DIFFERENCES IN TAX ADMINISTRATION PERFORMANCE, 2016

REGION	NUMBER OF TAX PAYMENTS	TIME TO COMPLY (hours)	POST-FILING INDEX <sup>a</sup> (distance to frontier; 0 = least efficient, 100 = most efficient)
Africa	35.4	285	55.6
Asia Pacific	22.1	204	56.7
Central America and the Caribbean	31.2	206	51.9
Central Asia and Eastern Europe	16.2	230	62.0
Europe	12.0	161	81.6
Middle East	17.2	154	46.5
North America	8.2	182	69.3
South America	22.8	547	41.7
World average	24.0	240	58.0

a. This index measures two processes that might take place after filing: claiming a value-added tax refund and correcting an error on a corporate income tax return, including going through an audit. Distance to frontier is a measure of the region's distance from the best observed performance.

Source: Based on data from World Bank and PwC (2018).

payments and long time to complete them increase the burden of tax collection for tax administrations.

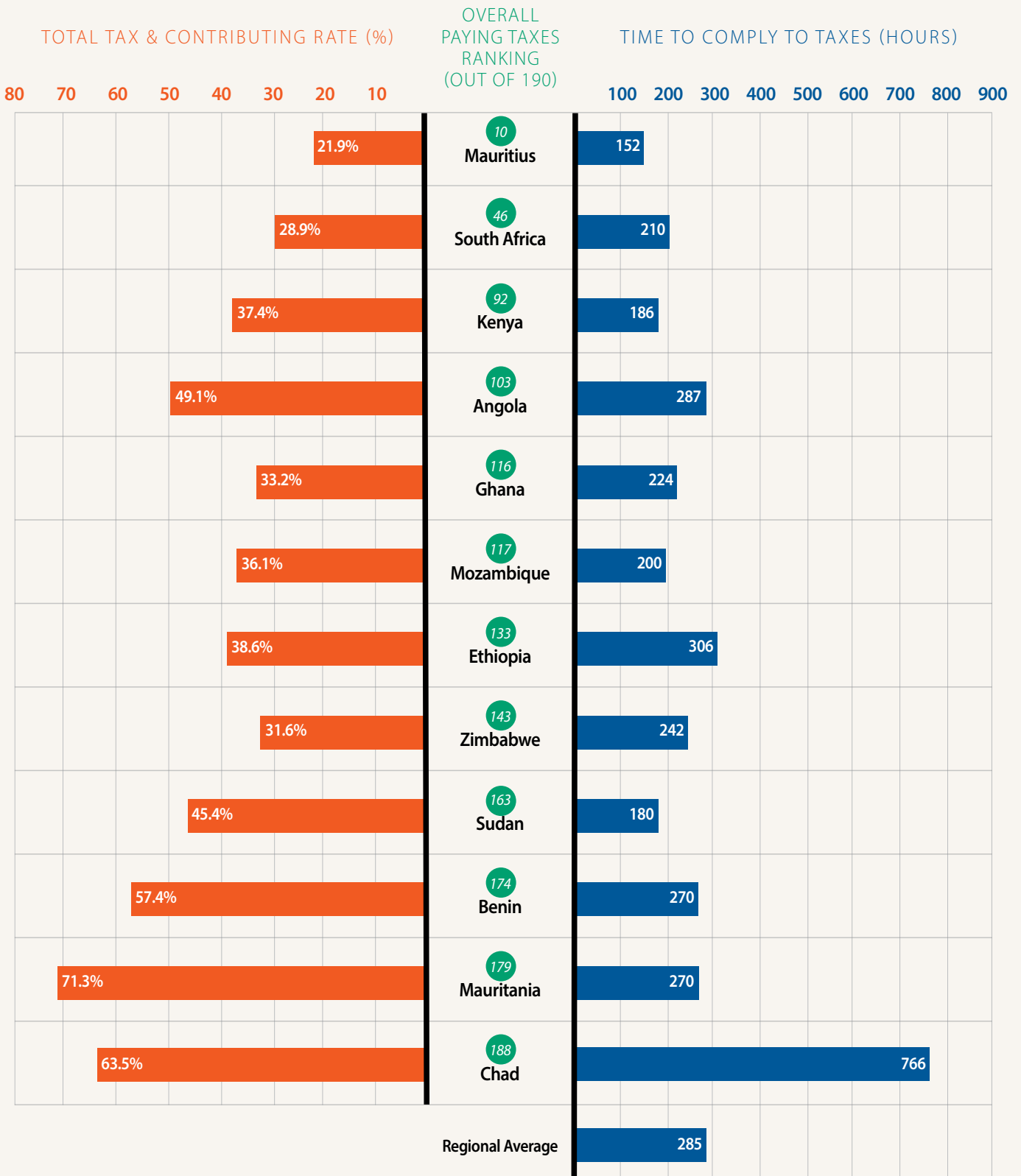
However, Africa performs well on another measure of tax administration, the post-filing index, which measures two processes that might take place after filing: claiming a VAT refund and correcting an error on a corporate income tax return, including going through an audit. For 2016 Africa scored the same as the Asia Pacific region and better than South America, the Middle East, and Central America and the Caribbean (World Bank and PwC, 2018). While Africa is starting from a moderately encouraging position, there is considerable room to improve tax administration in most countries (figure 5.1 and table A5.1 in the annex).

This chapter assesses tax administration in Africa, highlighting progress and challenges and identifying ways to enhance efficiency and effectiveness.

## PURPOSE AND FUNCTIONS OF TAX ADMINISTRATION

Modern tax administrations attempt to collect adequate revenue while keeping tax administration and compliance costs low and treating taxpayers fairly. The most cost-effective systems are those that convince the vast majority of taxpayers to meet their tax obligations voluntarily, so that tax officials can concentrate on the small number who do not comply. Features of the tax administration that encourage compliance include a service-oriented attitude that educates and assists taxpayers in meeting their obligations, effective audit programmes and consistent use of penalties as strong deterrents to non-compliance, and transparent administration of the tax laws that is viewed as honest and fair (Okello, 2014).

FIGURE 5.1. STATUS OF TAX ADMINISTRATION INDICATORS FOR SELECT COUNTRIES, 2018



Source: Based on data from World Bank and PwC (2018).

Successful tax collection depends on the tax administration's effective performance of several supporting tasks, including human resource management (recruitment, training, posting and promotion); internal vigilance in identifying, controlling and punishing staff misbehaviour, especially corruption; treasury activities, including managing and accounting for revenue collected; and taxpayer education and outreach activities.

Tax administration and tax policy are closely related. Tax policy needs to take into consideration tax administration capabilities, while tax administration may result in actual tax policy differing from formal tax policy. For example, the declared policy may state that all doctors in private practice must declare their incomes and pay personal income tax. However, if the tax agency makes little effort to register doctors, fails to ensure that they routinely file tax returns or never audits suspicious tax returns, then the actual policy is that doctors' private practice earnings are not taxed as personal income.

There are also organizational dimensions that distinguish tax administration and tax policy. The global norm is that the two activities should be organizationally separate: one agency should set tax policy, and another should implement it. Globally and throughout most of Africa, tax policy is formally the responsibility of a tax policy unit in the ministry of finance, while revenue is collected by separate units under the direct control of the ministry or by a semi-autonomous agency.

It is difficult to define clear principles for dividing responsibilities between tax policy units and tax administrations. For example, is a decision to increase resources for auditing tax returns a policy issue or purely an administrative or managerial matter? It seems at first glance to be administrative. But if auditing is rarely or badly done, and a large increase in resources holds reasonable promise of improving compliance and revenue collection, then it is arguably more of a policy issue.

While Africa is starting from a moderately encouraging position, there is considerable room to improve tax administration in most countries.



Tax policy units and tax administrations should cooperate closely. This means that the specialists in tax policy units should respect the operational knowledge of the senior staff of tax administrations and that the senior administrative staff should provide the tax policy specialists with the detailed data needed for policy-relevant analysis. This cooperation is not always forthcoming in Africa. Interorganizational rivalries are sometimes intense,<sup>1</sup> and other factors also colour the relationship in diverse ways. Where there is an imbalance in power between the two organizations, it tends to favour tax administrations, particularly when they are organized as a semi-autonomous revenue authority and outside the direct control of the minister of finance. Twenty years ago many African ministries of finance lacked tax policy units. While that is no longer true, they tend to be underpowered relative to tax administrations.

## STRUCTURE OF TAX ADMINISTRATION

There has been some convergence towards global best practice in tax administration in Africa, and today's collection processes are less diverse than they were 20 or 30 years ago. But convergence has been partially masked by the major organizational reform that has been implemented in almost half of

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<sup>1</sup> This is especially likely if revenue collection is undertaken by a semi-autonomous revenue agency whose staff are paid much more than those in comparable jobs within the ministry of finance.

the countries over that period: the creation of unified semi-autonomous revenue authorities.<sup>2</sup> The other countries in Africa have retained their organizational structure, with two or three departments within the ministry of finance responsible for collecting different categories of taxes.

### THE EMERGENCE OF SEMI-AUTONOMOUS REVENUE AUTHORITIES

Second only to the introduction of the VAT, the most visible tax reform in Africa since the early 1990s has been the creation of semi-autonomous revenue authorities. This has involved a substantial change in the organization of tax collection:

- Existing revenue collection organizations—typically two to four departments in the ministry of finance—were merged into a single agency.
- This agency is removed from the direct control of the ministry of finance and given semi-autonomous status under a separate management board.

The notion that central banks, revenue authorities and other important fiscal, financial and regulatory organizations should be apart from direct government control has its roots in the New Public Management reforms that were fashionable in the Anglophone world from the 1990s on. Such semi-autonomous revenue authorities are nearly universal in Anglophone Africa and have also spread to Burundi, Mozambique, Rwanda and Togo. Their establishment was stimulated by funding and technical assistance from the World Bank and the UK aid programme.

The creation of these semi-autonomous revenue authorities was often met with considerable resistance and tension. Their impact continues to be debated. A number of factors complicate the

debate. First, their creation did not occur in isolation. It was part of a package of reforms in tax policy and administration and was intended to facilitate those wider reforms. Second, the organization change was accompanied by large increases in salary for the staff of the new semi-autonomous revenue authorities,<sup>3</sup> who today are often paid three to four times as much as counterparts in the ministry of finance with whom they interact. Their high salaries generate resentment. They also help explain why the costs of tax collection are so high in Africa. Third, there is no single semi-autonomous revenue authority model. They are diverse organizations, and their relationships to other parts of government, notably to the ministry of finance, vary across countries and over time (table 5.2). These variations mean that there is no reason to expect that semi-autonomous revenue authorities would have similar effects in all countries.

Semi-autonomous revenue authorities are in practice much less autonomous than their original proponents expected or intended them to be. To the extent that the people who manage them enjoy some autonomy, it relates mainly to (lower level) managerial issues—for example, who they recruit and how and how they deploy their staff. For major decisions, including pay structures, they are typically very much under the control of the ministry of finance or the president.<sup>4</sup> And they do not seem generally to be immune from political interference.

At the same time, the high salaries and attractive working conditions have enabled some semi-autonomous revenue authorities to hire more skilled workers, who sometimes play an active role in issues that are formally the remit of the ministry

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2 The extent of divergence hints at some bad practices and positive scope for reform. For example, in a sample of 16 countries studied by the African Tax Administration Forum, the number of taxpayers per tax administrator averaged 202 in Africa, ranging from about 30 in Togo to 961 in Mozambique (ATAF, 2017, figure 8.7). The Mozambique Revenue Authority registers all potential taxpayers, even those who do not file tax returns or make payments.

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3 In some cases, the establishment of semi-autonomous revenue authorities led to large-scale dismissals of existing tax collectors. In other cases, most existing staff were transferred to the new organization.

4 When applied to an organization such as a revenue authority that is ultimately answerable to government, the concept of “autonomy” eludes easy definition. One theoretical study suggests that autonomy can be measured along six dimensions: managerial, policy, structural, financial, legal and interventional (the extent of reporting requirements against pre-set goals; Verhoest et al., 2004).

TABLE 5.2. ORGANIZATIONAL LOCATION OF REVENUE AUTHORITIES IN THE CASE STUDY COUNTRIES

COUNTRY	TAX ADMINISTRATION AUTHORITY	SEMI-AUTONOMOUS STATUS (yes or no)	LOCATION AND MANDATE OF REVENUE AUTHORITY
<b>Angola</b>	Administração Geral Tributária (AGT)—The General Tax Administration	Yes, under the Ministry of finance	Its mission is to propose and execute government tax policy and ensure full compliance; administer taxes, customs duties and other taxes as assigned; and study, promote, coordinate, execute and evaluate tax policy programmes, measures and actions related to the organization, management and improvement of the tax system.
<b>Benin</b>	Direction Générale des Impôts (DGI)	No	In charge of determining the basis, liquidation, control and litigation of all taxes provided for in the Tax Code; the recovery and repayment to the public treasury of taxes and state fees and ancillary taxes; tax audits; land conservation, mortgages and other land rights; management of the state private domain; and evaluation of the administrative accounts and the management of its entire accounting network.
<b>Chad</b>	Direction Générale des Impôts (DGI)	No	A department in the Ministry of Finance.
<b>Ethiopia</b>	Ethiopian Ministry of Revenue (EMOR)	Fully autonomous	Responsible for collecting revenue from customs duties and domestic taxes.
<b>Ghana</b>	Ghana Revenue Authority (GRA)	Yes	A corporate body established to replace the Customs, Excise and Preventive Service; Internal Revenue Service; Value Added Tax Service; and the Revenue Agencies Governing Board Secretariat for the administration of taxes and custom duties. This represents a change in identity for the revenue agencies and unites the administration of taxes and customs duties in Ghana. The merger of the three revenue agencies into an integrated and modernized revenue authority is part of a worldwide trend to achieve efficiency and effectiveness.
<b>Kenya</b>	Kenya Revenue Authority (KRA)	Yes	Responsible for collecting revenue on behalf of the government, focussing on assessment, collection, administration and enforcement of laws relating to revenue.
<b>Mauritania</b>	Direction Générale des Impôts (DGI)	No	A department in the Ministry of Finance. Responsible for mobilizing revenue for the government by participating in the definition of tax policy and the drafting of legislative and regulatory texts, including the finance laws; identifying, locating and registering taxpayers by assigning them a tax identification number; establishing the tax base, licences and their recovery; combatting fraud through tax audits; handling the tax claims of taxpayers; and representing Mauritania in international bodies in charge of tax issues.
<b>Mauritius</b>	Mauritius Revenue Authority (MRA)	Yes	MRA is an agent of state and as such the Ministry of Finance and Economic Development continues to have overall responsibility for MRA and monitors its performance. MRA is responsible for collecting approximately 90 per cent of tax revenue and for enforcing tax laws.
<b>Mozambique</b>	Autoridade Tributária de Moçambique (AT)—Mozambican Tax Authority	No	A department under the direct control of the Ministry of Finance.
<b>South Africa</b>	South African Revenue Service (SARS)	Yes	Established under the South African Revenue Service Act 34 of 1997 as an autonomous agency, responsible for administering the South African tax system and customs service and collecting taxes.
<b>Sudan</b>	Sudan Taxation Chamber (STC)	No	Established in 1954 as a section in the Ministry of Finance. It is now a department under the same ministry.
<b>Uganda</b>	Uganda Revenue Authority (Authority)	Yes	A government revenue collection agency established by the Parliament. Operating under the Ministry of Finance, Planning and Economic Development. Mandated to assess, collect and account for Central Government Tax Revenue (includes Non-Tax Revenues) and to provide advice to government on matters of policy relating to all revenue sources.
<b>Zimbabwe</b>	Zimbabwe Revenue Authority (ZIMRA)	Yes	Under the Revenue Authority Act and other subsidiary legislation is responsible for assessing, collecting and accounting for revenue on behalf of Zimbabwe through the Ministry of Finance. Collected taxes include customs duties, value-added taxes, excise duties, income taxes, pay-as-you-earn taxes; mining royalties; capital gains taxes; and others.

Source: Based on data from national revenue agencies, ATAF (2017) and the International Survey on Revenue Administration.

of finance, such as tax policy analysis, advocacy activities and public outreach activities to explain taxes to citizens (von Soest, 2007). The divergence in salaries and other forms of remuneration from those of colleagues in the ministry of finance can become an obstacle to cooperation and the effective governance of taxation more broadly.

## ASSESSING THE PERFORMANCE OF TAX ADMINISTRATION

A basic measure of tax administration performance is total revenue collection (tax and non-tax) as a share of GDP (see chapters 3 and 4). A more sophisticated measure is tax effort, which is the ratio of actual revenue collected to the amount expected to be collected given the structure of the national economy.

During 1991–2006 average tax effort was 75 per cent for 14 Sub-Saharan Africa countries, higher than the average for 6 Latin American countries (59 per cent) and 4 South Asian countries (51 per cent; IMF, 2011: 59–60). A more recent analysis covering 120 developing countries over 1990–2012, which also takes into account the potential depressing effect of economic vulnerability on tax collection, assessed the average tax effort of the elected countries as “outstanding” (Yohou and Goujon, 2017: 1). These countries are converging towards global benchmarks in tax administration.

Globally, job turnover among heads of revenue administrations is very high, which is likely to adversely affect the performance of tax administration. Over 2009–2013 the turnover rate in Africa was about the same as in Europe and the Middle East and Central Asia and considerably lower

than in Latin America and the Caribbean and Asia Pacific (IMF, 2011). There is also evidence that tax reforms over the past decade have strengthened the belief among Africans that governments have a right to tax them (Moore, Prichard, and Fjeldstad, 2018).

But shortcomings remain pervasive. Indirect taxes such as the VAT, which have broad tax base advantages, are now common in Africa. However, poor design and implementation mean that collection costs are unusually high as a percentage of total collection, indicating poor linkages between policy and administration in Africa.

The International Monetary Fund (IMF)-sponsored Tax Administration Diagnostic Assessment Tool (TADAT) framework is focused on nine key performance outcome areas that cover most tax administration functions, processes and institutions (figure 5.2).<sup>5</sup> Country TADAT Performance Assessment Reports are confidential, however, unless a government makes them public. Of the 29 African countries that have undergone TADAT assessments, only 3 (Burkina Faso, Liberia and Zambia) have made their assessment reports public.<sup>6</sup> The observation that standards of tax administration vary widely within Africa is therefore based mainly on a diverse range of “soft” evidence.

Morocco and South Africa are the top performers in tax administration. While they collect fairly

*5 The IMF sponsored the development of the Tax Administration Diagnostic Assessment Tool (TADAT) and the training of specialists who assess and score national tax administration country by country.*

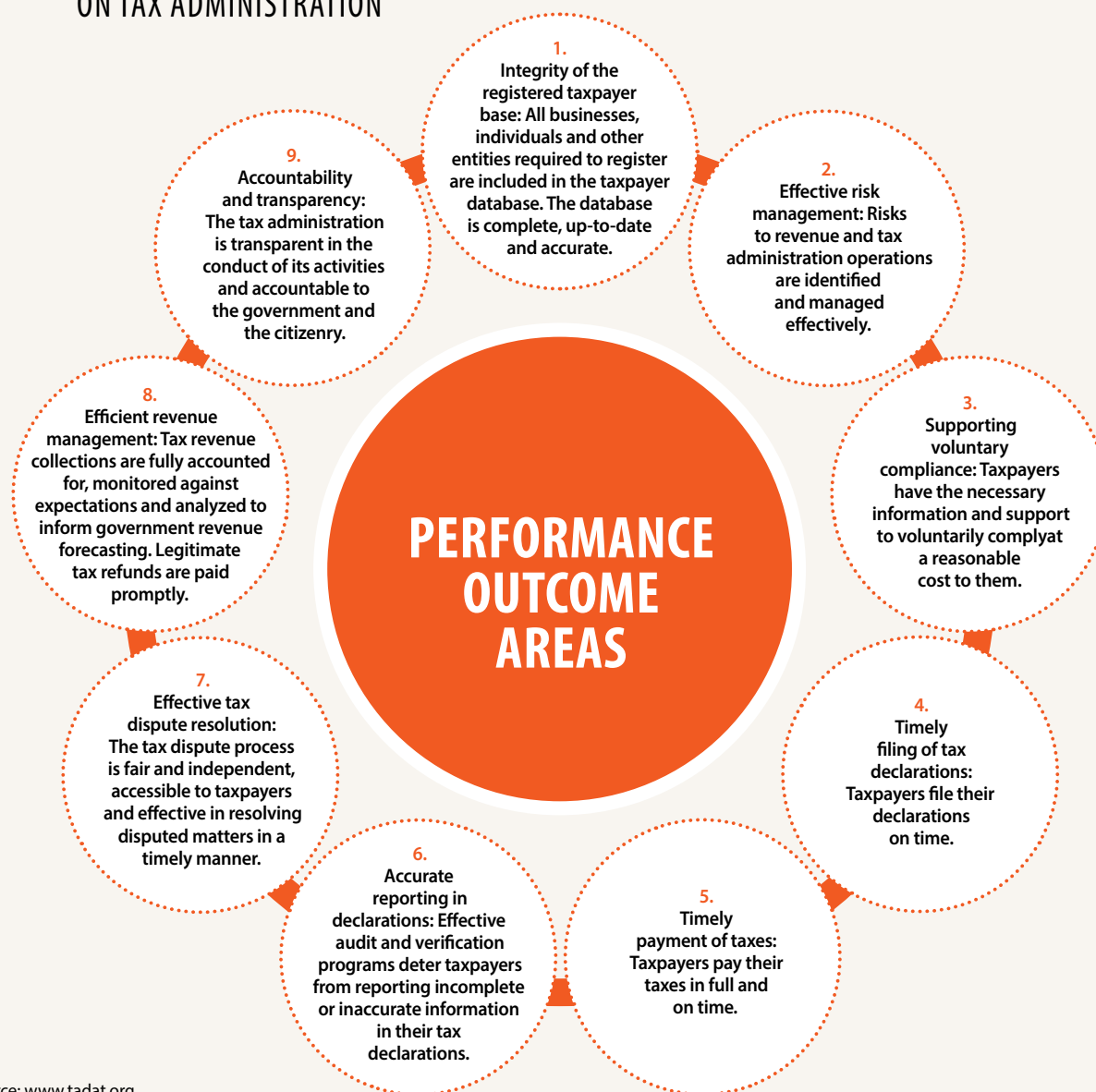
*6 Angola, Burkina Faso, Burundi, Cameroon, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Egypt, Ethiopia, Gambia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sierra Leone, South Africa, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe; see <http://www.tadat.org/files/TADAT-Assessments-NOV2018.pdf>*



During 1991–2006 average tax effort was 75 per cent for 14 Sub-Saharan Africa countries, higher than the average for six Latin American countries and four South Asian countries.



FIGURE 5.2. THE TAX ADMINISTRATION DIAGNOSTIC ASSESSMENT TOOL IS A DATA COLLECTION TOOL ON TAX ADMINISTRATION



Source: [www.tadat.org](http://www.tadat.org).

high revenue as a share of GDP, that alone does not define them as high performers—tax administrations in other African countries collect higher proportions of GDP in revenue despite indifferent standards of tax administration.<sup>7</sup> Morocco also has the lowest number of tax payments, followed by South Africa (see table

A5.1 in the annex). Both tax administrations collect revenue fairly efficiently, seek to help and encourage taxpayers to be more compliant and, unlike most tax administrations in Africa, devote considerable resources to analysing data collected through routine operations, with a view to making operations more efficient. Kenya is another example of good practice for other African tax administrations.

<sup>7</sup> This is especially likely in resource-exporting countries, such as Angola. Over the past decade, government revenue has been at typical OECD levels of 35–40 per cent of GDP.

At the other end of the performance scale are

■ Some African countries are well ahead of others and are increasingly able to provide technical assistance to other countries in the region. ■

Somalia and Nigeria. In Somalia security risks prevent the government from collecting much more than some limited customs revenue from Mogadishu port and airport. Nigeria is in a less parlous position, but its tax administration has deteriorated since the 1960s, as revenue from oil production began to eclipse all other sources of revenue, which were soon neglected. Estimates of how much revenue Nigeria collects vary—7 per cent of GDP is widely quoted—attesting to the poor average quality of tax administration.<sup>8</sup> Good tax administrations report accurately how much money they collect and remit to the treasury.

Overall, the standards of national tax administrations in Africa range from similar to those in Organisation for Economic Co-operation and Development (OECD) countries to very poor. This diversity should be kept in mind in discussions of potential tax administration reforms. Some African countries are well ahead of others and are increasingly able to provide technical assistance to other countries in the region. This is especially so in the use of digitalization and electronic tax filing to improve efficiency and effectiveness.

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<sup>8</sup> Nigeria is one of the few countries in Africa where there has been considerable *de facto* privatization of revenue collection. This has occurred at the state rather than at the federal level, and accurate information is not available.

## TAX ADMINISTRATION REFORMS

The global consensus on tax administration reform since the 1980s reflects mainly the experiences of tax professionals,<sup>9</sup> but with little input from those in Africa and other low-income regions, which have been recipients rather than initiators of reforms (Fjeldstad and Moore, 2008). This global consensus has been neither consistently questioned nor explicitly rejected in Africa, though it has met greater resistance in Francophone countries, no doubt because of the reforms' Anglophone roots.<sup>10</sup> Except in appeals to traditional practices, there is no consistent or coherent alternative vision of tax administration to that of the global Anglophone consensus.

This new global consensus has evolved less as doctrine than as a set of best practices that reflect interactions between tax administration and changes in forms of economic activity, digitalization and introduction of the VAT. Six important features of the way best practices are now understood in tax administrations in Africa are discussed below.

### PRIORITY SHIFT: FROM POLICY TO ADMINISTRATION

The new consensus on tax reform that took shape in the 1970s and 1980s emphasized the importance of taking tax administration into account when designing tax policy. This was

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<sup>9</sup> There is not the same degree of consensus in relation to international tax issues. These remain very contested.

<sup>10</sup> We do not have sufficient quantitative evidence to test the claim that change has been less extensive in the Francophone countries. There is some relevant information in Fossat and Bua (2013), who suggest that Francophone Africa has been particularly slow in digitizing tax administration functions. It also seems that the Francophone tradition of maintaining dense networks of local tax offices to maintain close direct and personal contact with taxpayers has not given way to the kinds of organizational reforms, discussed in the main text, that in Anglophone countries have led to a shift of personnel and functions to head offices. There is some indirect evidence for this in the figures that are available on the ratio of taxpayers to tax administration staff in a sample of African countries in 2015. That ratio was generally lower in the Francophone countries (ATAF, 2017).

a reaction against previous tax policies, which in many countries were intended to achieve ambitious social and economic goals (including income redistribution) in addition to raising revenue. Reformers believed that the attempts to use the tax system as an instrument of social and economic change were generally ineffective and had had adverse side effects, including the creation of complex tax codes that were difficult to implement and prone to corruption. In the new orthodoxy, tax policy and tax administration were expected to focus more on raising revenue. Reformers emphasized simplification.

### **FROM PHYSICAL VERIFICATION TO ANALYSIS OF RECORDS AND ACCOUNTS**

Methods of tax collection have also changed. Thirty years ago, in most of Africa as in many other parts of the world, tax collection involved tax collectors visiting taxpayers in their homes and businesses to verify their economic activities, assess their tax obligations and often to collect payment. While this emphasis on physical verification and face-to-face assessment is still evident in many parts of Africa today, especially in customs administration, that is not the norm for progressive tax administrations in Africa, nor is it the vision for the future of tax collection.

There has been a shift from physical verification—and from the accompanying opportunities for collusion between tax collectors and taxpayers—towards office-centred assessment systems that require little direct interaction with taxpayers and are based on the analysis of written or digitalized records and business accounts. The process of assessing dues has also been separated from the process of paying taxes. Increasingly, payments are made to banks and other collection agents, to dedicated front-desk bill payment facilities within tax offices or on-line (Moore, 2014).

These changes in methods of tax collection reflect changes in the structure of national economies and in available technologies. Visits by tax collectors to inspect and verify production facilities and

production may make sense for agriculture and manufacturing, where there is something to see, but little sense in increasingly service-oriented economies, where there is much less to see. The information tax administrations need is found in written or digital records and accounts.

Related trends such as globalization, including the proliferation of global production chains, and wider use of banks and other financial services also contribute to changes in tax collection. They render production and value added less visible to the eye, while simultaneously increasing the volume of written or digital records on economic transactions.

Digitalization also increases access to business records and greatly reduces the cost of analysing them. For example, it is increasingly easy for tax administrations to access and use third party sources to cross-check taxpayers' submissions (such as bank and credit card accounts; telephone bills; electricity, water and other public utility bills; motor vehicle sales and registrations; real estate transactions; government procurement processes and company ownership and dividend payments).

### **INTRODUCTION OF THE VALUE-ADDED TAX**

Convergence in tax administration reform in Africa has to a large extent been driven by the shift from a dependence on trade taxes to reliance on the VAT. Getting countries to introduce the VAT was the main focus of tax reforms efforts by international organizations and aid donors since the 1980s.

Until the 1970s and 1980s taxes on international trade (imports and exports) were the major source of revenue for most African governments, in large part because of the prominent economic role of commodity exports. The secular decline of global commodity prices raised alarms about this dependence. International organizations argued that trade taxes were a serious obstacle to more efficient economic specialization and long-term economic development in Africa and that they should largely be replaced by the VAT. That

## The VAT will continue to be contentious in Africa. But whatever its general appropriateness to the continent, it seems likely that—along with the simultaneous paring down of trade taxes—its introduction has given a boost to the modernization of African tax administration.

narrative, backed by the power of aid, was generally persuasive. Most African countries slashed trade taxes and introduced the VAT.<sup>11</sup>

The change was not without controversy, however, as doubts were raised about the VAT's appropriateness for Africa. The VAT is a complicated tax. It requires taxpayers, many of them small retailers and other small businesses, to keep extensive accounts and issue invoices. It involves detailed schedules about which goods and services are subject to which VAT rate, which are zero rated and which are exempt. It requires tax administrations to collect more data than before and, at least in principle, to put more resources into verifying data by checking samples of invoices against receipts. It also requires issuing VAT refunds to exporters, to avoid discriminating against exports.

The complexity of the VAT was seen as a positive feature, arguing that it imposed a useful discipline on both taxpayers and tax administrations. Taxpayers would need to keep more extensive and accurate accounts, which would be good for their businesses and for tax administration in the long run. And tax administrations would be compelled to use more modern (accounts-based) practices

and assessment methods, which would have positive spillover effects on their performance.

In many African countries the VAT did not generate the expected revenue (Baunsgaard and Keen, 2005) and has generally been poorly designed and implemented, with many legal and de facto exemptions. The efficiency of VAT collection, measured by C-efficiency (the ratio of actual to potential tax revenue), is significantly lower on average for Africa than for any other region (Keen, 2013).

Yet the VAT accounts for more revenue than any other single tax in Africa and has become a reliable generator of revenue—and one that automatically adjusts for inflation. However, around half of VAT collections are on imports. These are in effect little more than import duties under a new label, and they could easily be re-labelled again. The VAT is not costless. If the tax is not to penalize exporters, there needs to be a functioning system for refunding VAT payments to them. This does not exist in about half of the African countries that levy the VAT.<sup>12</sup> Where refunds are payable, they generate much friction and, second only to customs checks, are likely to be a major source of corruption in tax administration. These problems in turn motivate businesses to demand exemptions from the VAT to protect against unfairness or hassle.

The VAT will continue to be contentious in Africa. But whatever its general appropriateness to the continent, it seems likely that—along with the simultaneous paring down of trade taxes—its introduction has given a boost to the modernization of African tax administration.

### THE GENDER OF TAX COLLECTORS

The shift from physical verification to the analysis of records and accounts has had broad implications for the work of tax collectors. Direct personal contact with taxpayers is becoming less frequent. The skills that are in demand are decreasingly those

11 The 2018 edition of the annual *Paying Taxes* report has information on 41 of the 45 African countries that have a VAT.

12 VAT refunds are not available in 19 of the 41 countries with information on the VAT in the 2018 edition of annual *Paying Taxes* (World Bank Group and PwC, 2018).

**In OECD countries women typically account for about 60 per cent of the total workforce in national tax administrations. In Africa, however, men still outnumber women in most tax administrations, sometimes by a large margin.**

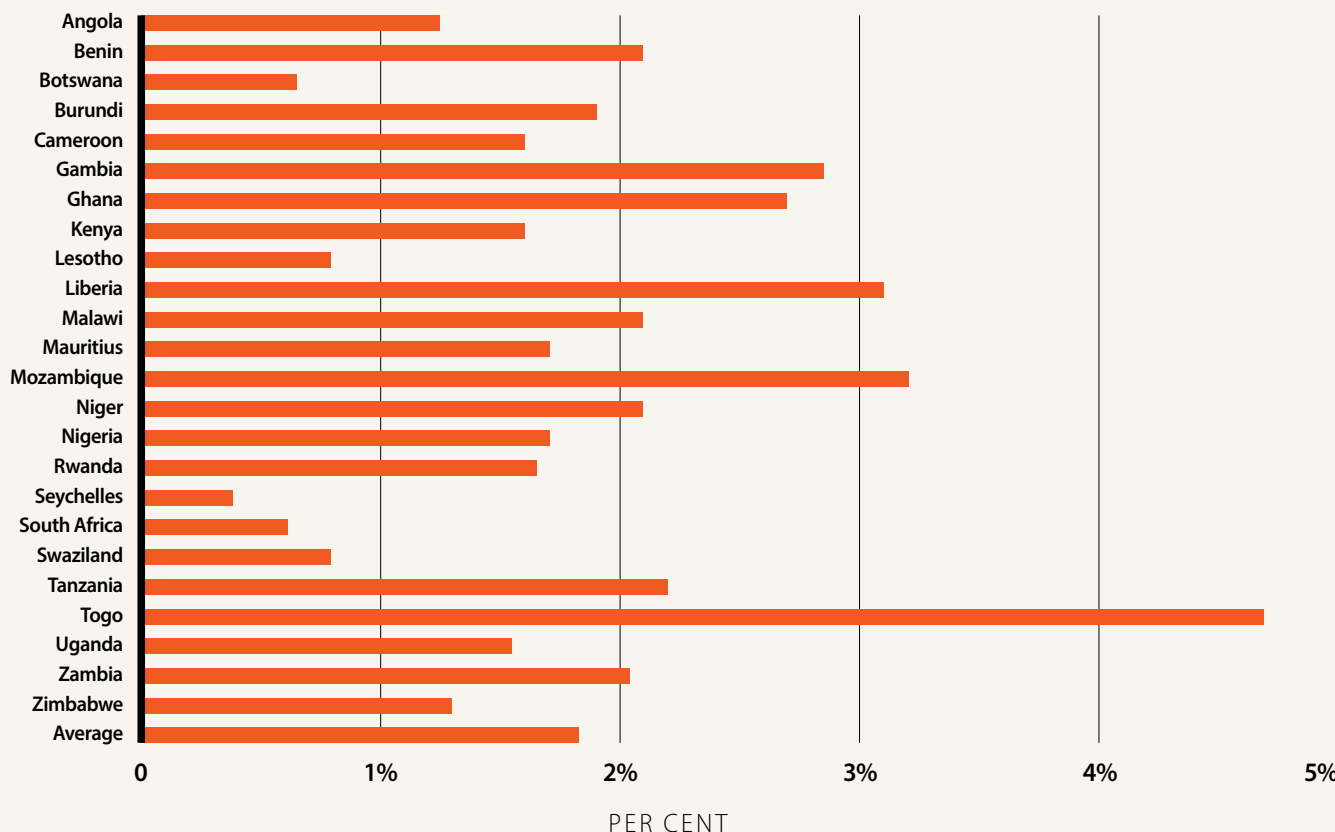
of enforcer and increasingly those of accountants, auditors, lawyers, researchers, information technology specialists, human resource managers, data analysts, outreach specialists and service desk staff. These changes in the character of jobs in tax administration, together with broader changes in labour markets and in gender relations, contribute to the increasing numbers of women working in tax administration. In OECD countries women typically account for about 60 per cent of the total workforce in national tax administrations (OECD,

2017).<sup>13</sup> In Africa, however, men still outnumber women in most tax administrations, sometimes by a large margin (figure 5.3).

In 2016 there were on average three times more male than female senior managers in the 24 national tax administrations reporting for the *African Tax Outlook* (ATAF, 2017). The proportion

<sup>13</sup> As in most large organizations globally, women tend to be concentrated in the lower ranks and to account for a small proportion of senior management.

FIGURE 5.3. RATIO OF MALE TO FEMALE STAFF IN TAX ADMINISTRATION IN 24 AFRICAN COUNTRIES, 2016



Note: The average is for the 24 countries included in the figure.

Source: Based on data from ATAF (2018).

of women in tax administration is rising, however. Only one study for Africa has ever examined the implications of the growing number of women for the performance of tax administrations (box 5.1). The study, for the Uganda Revenue Authority, suggests that women have a positive effect (Mwondha et al., 2018).

### ORGANIZATIONAL AND OCCUPATIONAL SPECIALIZATION

Twenty or thirty years ago, most tax administration staff in Africa had relatively low education qualifications and few professional credentials. Their jobs were fairly homogeneous. Most staff worked in an organization devoted to collecting just one type of tax—for example, trade taxes (customs), direct domestic taxes like income taxes, indirect domestic taxes (sales taxes), excise taxes (notably on alcohol) or stamp duties (fees on official transactions)—and did much the same kind of work as all the other people in the office. They were based in a fairly small local office, close to the taxpayers for whom they were responsible. They tried to keep close tabs on those taxpayers and to get to know them personally. They assessed taxes, prepared tax bills, ensured that

those bills were paid and sometimes even collected the payments themselves. They had considerable personal control over the written records that they maintained.

Today, tax administration jobs are more diverse, reflecting the organizational changes discussed above. In some countries all tax collection has been assigned to semi-autonomous revenue authorities, responsible for both trade and domestic taxes.<sup>14</sup> Even where customs and other tax collection units have not been placed under the same operational management, there has been an emphasis on improving coordination. Generally speaking, the more coordination, common management or direct merging that has taken place among units formerly focused on collecting specific types of tax, the easier it is to adopt internal structures that are similar to those of tax administrations in OECD countries. Three dimensions of this modern structure are especially relevant:<sup>15</sup>

- Internal units are defined by function rather than by the type of tax they collect. With the exception of customs, which continues to have a distinct character, units identified in terms of type of tax (such as Stamp Duty or Income Tax) have largely been replaced by units with names such as Taxpayer Registration, Tax Returns, Payments Processing, Debt Collection, Audit and Investigations, Finance, Information

#### BOX 5.1. A CASE FOR GENDER MAINSTREAMING IN TAX ADMINISTRATION: THE UGANDA REVENUE AUTHORITY

Men have dominated tax administrations in Africa. However, the situation is changing as more women enter tax-related professions. A recent study of the Uganda Revenue Authority finds not only increasing parity between men and women but also higher levels of performance by female employees (Mwondha et al., 2018). The study finds that women perform slightly better than men based on their regular six-month staff performance appraisals and that on average women serve the organization slightly longer (12.3 years) than

men (11.6 years), important for an organization with traditionally high staff turnover rates. The study also found that men had twice as many disciplinary actions against them as women did. Both women and men reported being generally relaxed about and satisfied with working in a mixed-gender environment. These findings make the economic case for gender mainstreaming, as women help to improve organizational performance. Gender mainstreaming is also a human rights issue (ECA, 2016).

<sup>14</sup> Even within the framework of semi-autonomous revenue authorities, customs remain organizationally distinct. This is almost unavoidable, because of the large—and generally growing—focus of customs on non-revenue activities, notably trade facilitation and national security. Common management nevertheless facilitates cooperation between customs and domestic tax units, the sharing of common services and, perhaps most important, the interfacing of their software systems to facilitate sharing data on taxpayers.

<sup>15</sup> In a number of Francophone countries, the business of assessing tax liabilities had historically been undertaken jointly by a tax administration unit and the treasury unit within the ministry of finance. This practice has been discontinued (Fossat and Bua, 2013).

TABLE 5.3. TAXPAYER SEGMENTATION AND ASSOCIATED RISKS IN SELECT COUNTRIES

SEGMENT	DEGREE OF RISK	ATO COUNTIES WITH THIS SEGMENTATION
<b>Large taxpayers</b>	<ul style="list-style-type: none"> <li>• Low risk of under-declaration</li> <li>• High level of tax planning</li> <li>• Low risk of misclassification</li> </ul>	Benin, Botswana, Burundi, Cameroon, Eswatini, Gambia, Kenya, Liberia, Lesotho, Malawi, Mauritius, Mozambique, Nigeria, Rwanda, Senegal, Seychelles, Tanzania, Togo, Uganda, Zambia and Zimbabwe
<b>Medium taxpayers</b>	<ul style="list-style-type: none"> <li>• Moderate risk of under-declaration and misclassification</li> </ul>	Benin, Burundi, Cameroon, Kenya, Malawi, Nigeria, Senegal, Seychelles, Tanzania, Togo, Uganda and Zambia
<b>Small taxpayers</b>	<ul style="list-style-type: none"> <li>• High risk of under-declaration</li> <li>• Hard to track and trace</li> <li>• Inaccurate returns</li> <li>• Constantly change International Standard Industrial Classification (ISIC), which makes them hard to monitor</li> </ul>	Benin, Burundi, Cameroon, Kenya, Malawi, Senegal, Seychelles, Tanzania, Togo, Uganda and Zambia
<b>Micro taxpayers</b>	<ul style="list-style-type: none"> <li>• Very high risk of non-declaration</li> <li>• Determination of income is difficult</li> <li>• High compliance enforcement costs</li> <li>• Highly difficult to trace</li> </ul>	Benin, Cameroon and Nigeria

Source: ATAF (2018).

Technology, Human Resources, Legal Affairs, Dispute Resolution, Taxpayer Services, Research and Planning, and Internal Compliance (anti-corruption).

- Because fewer staff need to be in local offices to facilitate face-to-face contact with taxpayers and because specialist support functions (such as human resource management and taxpayer services) have become relatively more important, there is typically a shift in staff numbers from local offices to headquarters.
- There is extensive use of segmentation, or allocating different categories of taxpayers (in practice, mainly different business sizes) to separate units within the tax administration. At a minimum, the tax returns, assessments and auditing of large businesses is undertaken in a special unit.

Organization around the principle of segmentation varies widely (table 5.3). Some tax administrations simply have two separate units: one for large taxpayers and one for the rest. The South African

Revenue Services has six units, including ones dealing with embassies, tax-exempt organizations and tax practitioners.<sup>16</sup> In 2014 the Uganda Revenue Authority established a Public Sector Office, initially to deal with the tax affairs of ministries and other government agencies and expanded to cover politically influential individuals. Segmentation recognizes that different types of taxpayer require different treatment and tax collectors with different skills and abilities. Most important, the legal and accounting competencies needed to deal effectively with—and if necessary to challenge—tax returns from large (transnational) companies are very different from those needed to identify and collect taxes from small retailers or motorcycle taxis. Segmentation, by specializing and focusing on a set group of taxpayers is aimed at creating opportunities for improving the efficiency of tax administration.

<sup>16</sup> For a summary of information on some African tax administrations, see ATAF (2017).

## COOPERATIVE COMPLIANCE

For tax administration specialists, cooperative compliance is the defining feature of the new global consensus on tax administration. Several core ideas underlie cooperative compliance and are intended to increase the efficiency and the legitimacy of the tax system. Tax administrations should prioritize the education of taxpayers about the tax system and make it easy and low in cost for taxpayers to comply with reporting, filing and payment obligations. Relatedly, tax administrators should then assume that most taxpayers will be adequately honest in their declarations. Administrators should thus focus their enforcement and auditing<sup>17</sup> activities on the taxpayers most likely to be non-compliant and on random audits of a small proportion of taxpayers.

Tax administrations, supported by legislation, should work harder at informing high-income and corporate taxpayers in advance about what kinds of complex schemes intended to reduce tax bills will be considered acceptable and legal (tax avoidance) and which will be considered illegal (tax evasion). Disputes between taxpayers and tax administrations should be settled as quickly, cheaply and independently as possible, particularly through independent tax tribunals.

There are few national tax administrations in Africa that do not formally accept the broad principles embodied in the notion of cooperative compliance. There is little overall information on the extent to which they adhere to them in practice. It is clear that they have some way to go.

## CHALLENGES TO TAX ADMINISTRATION

Modern tax administrations seek to optimize tax collections while minimizing administration costs and taxpayer compliance costs. While the reforms discussed above have contributed to an increase in revenue, a number of weaknesses in national tax administration in Africa need attention. The challenges vary from country to country and over time. As discussed below, key challenges include the high cost of tax collection, lack of political will and coordination, and the slow adoption of new technologies. Other important challenges are discussed elsewhere in this Report—corruption and the complexities of informalities (chapter 3), inadequate tax administration especially at the subnational level (chapter 4) and inadequate tools to tax wealthy Africans (chapter 6).

### HIGH COST OF TAX COLLECTION IN AFRICA

The average cost of tax collection is considerably higher in Africa than in OECD countries. On average in 2016 revenue administrations in Africa spent 1.6 per cent of the revenue collected on operational costs, a marginal increase over the average between 2011 and 2016 (ATAF, 2017). The costs vary across the continent (figure 5.4).

Country comparisons show that Eswatini has the highest cost collection ratio relative to its peers (5.2 per cent) followed by Zimbabwe (4.0 per cent). Senegal (0.1 per cent) had the lowest cost-to-revenue ratio followed by Cameroon (0.3 per cent), Seychelles (0.5 per cent) and South Africa

**For tax administration specialists, cooperative compliance is the defining feature of the new global consensus on tax administration.**

*17 Audit units are often used to squeeze taxpayers suspected of having the capacity to pay more or as a last minute means of helping the tax agency meet its revenue collection targets.*



## The average cost of tax collection in Africa is considerably higher than in OECD countries.

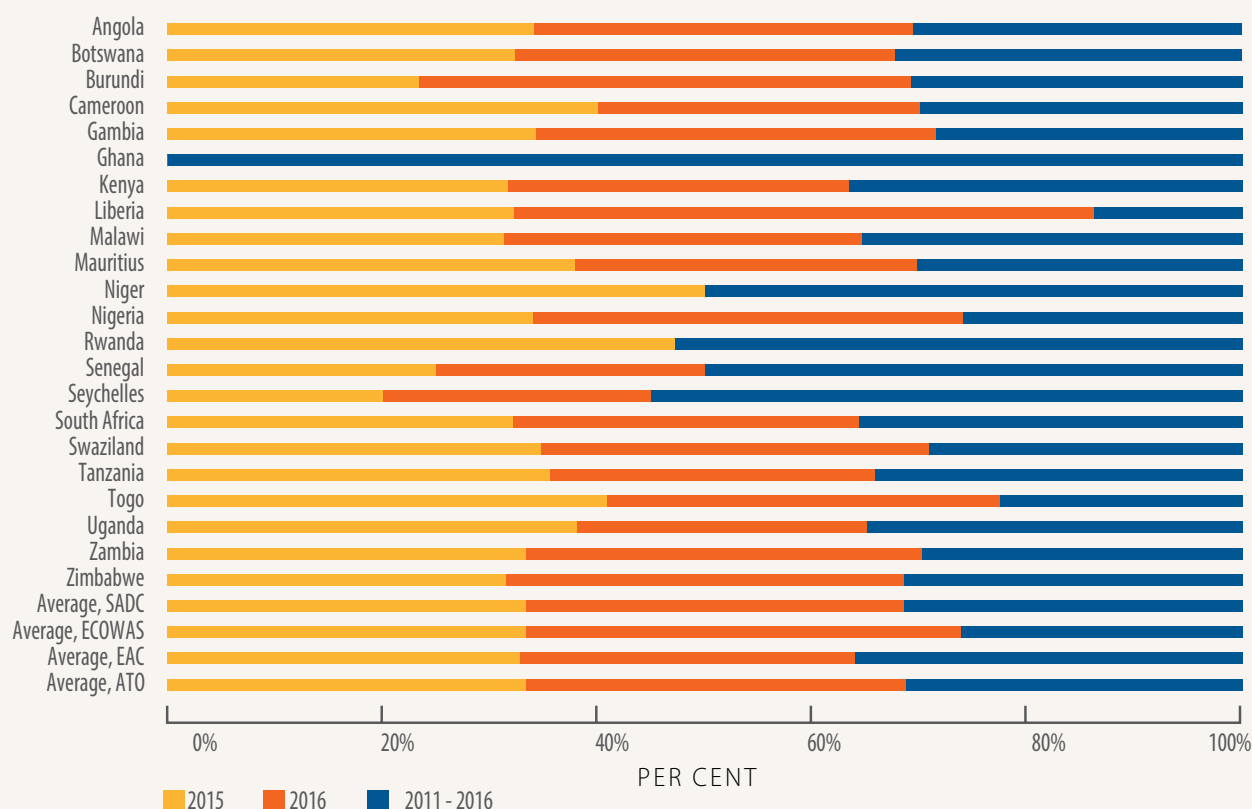
(0.9 per cent). Among regional economic groups, the Southern African Development Community and the East African Community had the highest cost-to-revenue ratio (1.9 per cent) followed by the Economic Community of West African States (1.4 per cent) (ATAF, 2018). The range of reported costs is high, suggesting considerable under-reporting in some cases. Estimates often seem to exclude aid. These challenges are compounded by the absence of comparably extensive and reliable data for Africa.

Some tax reforms, notably the creation of semi-autonomous revenue authorities, with their highly paid staff, have also pushed up collection costs.

More fundamentally, African tax administrations usually need to deal with a very wide variety of taxpayers. The routine operational costs of an organizational system equipped to engage with very large companies such as the multinationals Rio Tinto and Dangote Cement are high relative to the tax they can collect from the vast bulk of taxpayers, which are small and micro enterprises, many of which do not appear in databases.

The administrative costs of taxing small businesses can be high. African tax administrations are often under pressure to register and tax small and micro enterprises, especially from people who see the

FIGURE 5.4. COSTS OF TAX ADMINISTRATION RELATIVE TO REVENUE IN SELECT COUNTRIES, AVERAGE, 2011–2016



Source: ATAF, 2018.



While African tax authorities have modernized in ways that improve their capacity to tax the private sector, few have the authority or political backing needed to induce other parts of government to become good taxpayers and promoters of tax compliance.

under-taxation of informal sector activities as a big problem. But identifying, registering and managing these small taxpayers is expensive. They may generate little net revenue, while diverting attention from the small number of large business enterprises that generate a high proportion of the total revenue in most African countries (ATAF, 2017).

#### LACK OF POLITICAL WILL AND COORDINATION

While African tax authorities have modernized in ways that improve their capacity to tax the private sector, few have the authority or political backing needed to induce other parts of government to become good taxpayers and promoters of tax compliance more generally.<sup>18</sup> Other government agencies are often bad tax citizens. First, they delay in remitting the taxes that they are liable for paying directly (such as import duties and the VAT on their purchases), are licensed to collect directly (such as motor vehicle licence fees and royalties on natural resource extraction) or collect as intermediaries (such as the personal income taxes of government employees that are deducted at source under pay-as-you-earn arrangements and withholding taxes on public sector contracts).<sup>19</sup>

Second, other government agencies decline to provide the tax authority with the information it needs—and that private companies are required to supply—to properly assess the tax obligations of

third parties. This includes information on the non-salary benefits of public sector employees that are formally taxable, detailed personal information on public sector employees to enable the tax authority to correlate earnings from their formal salaries with their earnings from other sources,<sup>20</sup> and automatic notice of the details of the identity of recipients of (large) public sector contracts.

Third, other government agencies sometimes refuse to participate in charging or paying the VAT, thus compromising the information chain on which effective VAT collection depends and worsening the problem of inefficient VAT collection, mentioned above.

The effectiveness of tax administration depends in part on the effectiveness of other public bodies, including tax courts and tribunals, police, and law and other providers of tax-relevant public information, including passport authorities, land registries, electricity utilities, banks and government procurement agencies (most government agencies do some procurement). These all need to work together coherently.

#### SLOW ADOPTION OF NEW TECHNOLOGY

One of the most important digital issues in Africa today is that tax administrations are not exploiting the full potential of digital management information systems, many of which they already have access to. These gaps in the use of digital technology make it

<sup>18</sup> For rare information on this issue and how the Uganda Revenue Authority is approaching it, see Saka, Waiswa, and Kangave (2018).

<sup>19</sup> The motivation for payment delays may be to increase organizational budgets or to permit staff to use the money to invest in financial markets for personal gain.

<sup>20</sup> It is not unusual for government organizations—and private employers—to remit taxes to the tax authority without even identifying the people from whose salaries the taxes are deducted.

more difficult for senior management to monitor and control work performance and revenue inflow. They also limit the ability to analyse the extensive data that are already being collected digitally, in order to better understand taxpaying clients and assess organizational performance (Moore, Prichard and Fjeldstad, 2018). Future improvements in the performance of tax administrations will be closely linked to how well they take advantage of digital information systems.

While tax administrations have been slow to use digital information to monitor performance, they have made considerable progress in electronic filing and payments. Eighteen countries have introduced electronic filing and payment systems (see box 5.2 for the experience of Kenya and Namibia).<sup>21</sup> Three countries have made electronic filing compulsory for all taxpayers (Kenya, Uganda and Zimbabwe), and other countries require it for large taxpayers and for payment of core taxes (income tax, VAT and employment taxes; ATAF, 2017). In 2015 the Zimbabwe Revenue Authority (ZIMRA) launched e-filing, which led to an increase in tax submissions and improved the ease of doing business with ZIMRA. However, several factors make e-filing difficult, including the challenge of internet access and unreliable electricity service in some areas (Obert et al., 2018).

South Africa introduced e-filing in 2003 for the VAT and pay-as-you-earn taxes, expanding it in 2006 to cover corporate and personal income taxes. Tax compliance costs dropped 22.4 per cent and time to comply for the VAT dropped 21.8 per cent (Yilmaz and Coolidge, 2013). In Rwanda, as a part of the e-initiative of 2012, the introduction of electronic

### BOX 5.2. DIGITALIZATION AND TAX ADMINISTRATION IN KENYA AND NAMIBIA

The digitization and automation reforms undertaken by the Kenya Revenue Authority and the private sector have had positive outcomes. The money-transfer system M-Pesa has transformed tax policy and administration. The system includes an online application for tax administration (the iTax System) and allows taxpayers to file and pay taxes electronically.

Kenya Revenue Authority has also automated and digitized several of its functions to improve the efficiency of service delivery, promote paperless operations, enforce compliance, reconcile tax collections, promote transparency

and enhance accountability. Digitization of VAT operations has helped identify data inconsistencies and raised VAT collections by more than \$1 billion between 2016 and 2017.

In Namibia the time to comply and the number of VAT payments have remained flat in recent years, though both are above the global average. At the end of 2016, the Namibia Inland Revenue Department migrated to an integrated tax administration system, which offers new functions and reporting capabilities that will reduce delays in processing tax returns and the number of misplaced returns.

Source: Kenya Country Case Study; World Bank and PwC (2018).

billing machines contributed to a 6 per cent year-on-year increase in tax revenue and reduced the time to file VAT returns from 45 hours to 5 (Bizimungu, 2018). Nigeria introduced e-taxation in 2015 to automate all core processes from tax registration, payment, assessment, monitoring, tax audit and investigation, taxpayer file management and returns filing.

Countries need to prepare for tax digitalization by developing strategies and infrastructure for managing big data. One option is to assign this role to the national bureau of statistics.

<sup>21</sup> These were Angola, Botswana, Cameroon, Eswatini, Ghana, Kenya, Mauritius, Namibia, Nigeria, Rwanda, Senegal, Seychelles, South Africa, Togo, Tanzania, Uganda, Zambia and Zimbabwe.

## CONCLUSIONS AND POLICY IMPLICATIONS

Most African countries are improving the efficiency and effectiveness of tax administration. The increasing use of information technology, including digitalization, is enhancing the efficiency and effectiveness of tax administrations in the African countries that have introduced electronic tax filing and payment systems. Recent progress in improving the effectiveness and efficiency of tax administration needs to be sustained, including through efforts to educate taxpayers on the importance of tax compliance.

Pervasive weaknesses remain, however, especially the lack of reliable, consistent data on the quality of tax administration in Africa and the cost of tax collection, informality and corruption. All countries need to address the data challenge in order to provide input to decision making and improve the efficiency and effectiveness of tax administration. Strengthening the capacity of tax administrations, including their ability to collect taxes from broad and diverse groups, remains an imperative.

Governments try to overcome antipathy to raising taxes by doing so in ways that taxpayers consider fair and tolerable and by spending tax revenue in ways that taxpayers welcome. More generally, effective taxing and spending are premised on trust in government. Trust is hard to sustain if tax collectors are widely believed to be corrupt; if their actions appear arbitrary or unfair; if their administrative processes are complex, obscure and time consuming for taxpayers; or if they appear to be targeting and imposing unfair tax burdens on those least able to pay.

Not all elements of the global tax consensus will be the best way of achieving effective and efficient tax systems in all African countries. There is undoubtedly scope for creative local adaptations.



At its core, the global tax consensus is about shifting from tax administration procedures designed by and suited to governments and their tax collectors to practices that are also acceptable and convenient to taxpayers. It is about creating at least grudging if not enthusiastic consent to taxation—rather than open hostility and active resistance—and about increasing the legitimacy of governments. Not all elements of the global tax consensus will be the best way of achieving effective and efficient tax systems in all African countries. There is undoubtedly scope for creative local adaptations, leveraging increasing citizen compliance<sup>22</sup> and advancements in tools to modernize tax administrations towards efficiency and effectiveness.

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<sup>22</sup> Afrobarometer survey data for seven countries indicate that over 2005–2015 there was a steady increase in the proportion of people who expressed agreement with the statement “The tax authority always has the right to make people pay taxes” (Moore, Prichard and Fjeldstad, 2018: 34).

## ANNEX

TABLE A5.1. PERFORMANCE OF 54 AFRICAN COUNTRIES ON TAX ADMINISTRATION VARIABLES,  
MOST RECENT DATA AVAILABLE

COUNTRY	POST-FILING INDEX <sup>a</sup> (distance to frontier; 0 = least efficient, 100 = most efficient)	NUMBER OF TAX PAYMENTS	TIME TO COMPLY (hours)	USE OF ONLINE PUBLIC SERVICES (trend 2008–2017)
Algeria	49.8	27	265	-21.5
Angola	95.0	31	287	-12.2
Benin	49.3	57	270	+2.9
Botswana	82.7	34	120	+8.8
Burkina Faso	49.3	45	270	-0.7
Burundi	28.2	25	232	+18.8
Eritrea	99.5	30	216	-5.7
Ethiopia	50.9	30	306	+48.1
Equatorial Guinea	93.1	46	492	+2.2
Cabo Verde	80.7	30	180	+9.3
Cameroon	49.3	44	624	+10.8
Central Africa Republic	5.1	56	483	
Chad	11.0	54	766	+16.8
Comoros	57.3	33	100	+3.3
Congo	12.3	52	602	-3.6
Côte d'Ivoire	44.5	63	270	+16.9
Congo, Dem. Rep. of the Congo	27.1	52	346	0.0
Djibouti	49.6	35	76	-12.5
Egypt	26.6	29	392	-18.2
Equatorial Guinea	93.1	46	492	+2.2
Eritrea	99.5	30	216	-5.7
Eswatini	83.1	33	122	+3.4
Ethiopia	50.9	30	306	+48.1
Gabon	42.5	26	488	+10.2
Gambia	53.5	49	326	+3.0
Ghana	49.5	31	224	+21.0
Guinea	12.8	33	400	+2.3
Guinea-Bissau	45.3	46	218	+11.5
Kenya	62.0	26	186	+34.3
Lesotho	66.9	32	333	-28.0
Liberia	98.6	33	140	+17.5
Libya	90.2	19	889	+3.8
Madagascar	21.8	23	183	-2.2
Malawi	33.4	35	178	-0.5
Mali	25.7	35	270	-11.3
Mauritania	17.2	33	270	+0.7
Mauritius	87.6	8	152	+31.3
Morocco	98.6	6	155	+71.9
Mozambique	58.6	37		-14.6
Namibia	77.2	27		+14.7
Niger	38.0	41		-0.2
Nigeria	47.5	59		+25.6
Rwanda	63.7	8	95	+24.7
São Tomé and Príncipe	92.2	46		-9.5
Senegal	42.7	58		+9.4
Seychelles	93.4	29	85	+14.2
Sierra Leone	95.4	34		+8.0
Somalia				+2.0
South Africa	55.4	7	210	+0.8
South Sudan	95.9	37	210	-2.8
Sudan	20.2	42	180	+20.8
Tanzania	67.2	60		+47.0
Togo	14.9	49	216	+31.3
Tunisia	22.9	9	145	+79.5
Uganda	72.3	31	195	+31.4
Zambia	85.9	11	164	+50.0
Zimbabwe	52.8	51		+23.5

Note: Values highlighted in green show the best performance and values highlighted in red show the worst performance.

a. This index measures two processes that might take place after filing: claiming a VAT refund and correcting an error on a corporate income tax return, including going through an audit. Distance to frontier is a measure of the distance from the best observed performance.

Source: Based on data from World Bank and PwC (2018) and Mo Ibrahim Foundation (2018).

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