

The value-added tax (VAT) has the potential to generate significant government revenue. Despite its intrinsic self-enforcement capacity, many tax administrations find it challenging to refund excess input credits, which is critical to a well-functioning VAT system. Improperly functioning VAT refund practices can have profound implications for fiscal policy and management, including inaccurate deficit measurement, spending overruns, poor budget credibility, impaired treasury operations, and arrears accumulation. This note addresses the following issues: (1) What are VAT refunds and why should they be managed properly? (2) What practices should be put in place (in tax policy, tax administration, budget and treasury management, debt, and fiscal statistics) to help manage key aspects of VAT refunds? For a refund mechanism to be credible, the tax administration must ensure that it is equipped with the strategies, processes, and abilities needed to identify VAT refund fraud. It must also be prepared to act quickly to combat such fraud/schemes.

Introduction

The VAT is one of the most important taxes in the world, both in terms of its global adoption and revenue-generating potential. It has now been introduced in more than 160 countries and accounts for over 30 percent of the total central- and federal-level government taxes collected worldwide (WoRLD 2019). The VAT is an attractive tax because of its potential for generating significant government revenue and intrinsic self-enforcement capacity.

Nevertheless, one of its design features—the refunding of excess input credits—is challenging for many tax administrations and can easily undermine VAT

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operations (Ebrill and others 2001).¹ Recovering excess input VAT credits is critical to a well-functioning VAT system. Most VAT laws include provision for this design feature; taxpayers usually have the right to claim legitimate excess input VAT credits and receive cash refunds within legally prescribed deadlines (for example, one month). However, the reality is often different from the VAT law's intention. Country experience, especially in low-income countries, shows that access to VAT refunds is often limited. The refund requirements taxpayers must meet in order to claim VAT refunds, and the associated tax administration procedures, are complex and burdensome, often discouraging taxpayers from claiming legitimate VAT refunds. When taxpayers do claim such refunds, they frequently experience significant delays or are not paid at all. These problems are not the result of the VAT's design, as such, but stem from inadequate legal and institutional frameworks and weak (administrative) capacity to identify VAT refund fraud and implement preventative measures.

A taxpayer's behavior strongly affects the actual functioning of the VAT refund mechanism. VAT refunds are vulnerable to fraud, which may lead to treasuries losing substantial amounts of money, negatively impacting government revenue (Andrew and Baer forthcoming).² Tax administrations are thus often

¹The focus throughout this note is on the “invoice-credit” method, which is applied almost universally. Under this form of the VAT, a taxpayer has the right to credit the input VAT (s)he pays against the output VAT (s)he receives. In most cases, taxpayers have more than enough output VAT to offset their input VAT credits, which leaves them with positive net VAT liabilities. However, this is not always the case; taxpayers with little or no output VAT (for example, exporters or those investing heavily in business equipment or premises during the taxable period) may be left with negative VAT liabilities.

²Reported VAT refund fraud illustrates the scope of this problem. For example, in 2013, the total VAT collection gap for European Union (EU) member states was almost EUR 170 billion, of which the estimated cross-border (refund) fraud accounted for around EUR 50 billion. The balance was attributed to other types of VAT evasion, legal avoidance, and unpaid VAT liabilities caused by insolvencies. In Australia, a 2013 investigation into a VAT refund fraud involving gold revealed that the Australian treasury lost about AUD 700 million over a five-year period through fraudulent VAT refund claims. This loss represented about 5.5 percent of net VAT receipts.

reluctant to pay out VAT refunds in countries with high levels of noncompliance or fraud and weak fraud detection mechanisms. To reduce fraud, some countries limit taxpayers' VAT refund rights or implement cumbersome verification procedures that delay VAT refund payments. The incidence of VAT fraud, while significant and challenging, should not prevent the VAT refund mechanism from operating effectively.

The refund system is one of the principal pressure points in administering invoice-credit VATs (Ebrill and others 2001). Taxpayers and their agents often complain about VAT refund management, particularly in low- and lower-middle-income countries with weak tax administrations. They cite long processing times and inefficiency in verifying refund claims as key challenges. At the same time, many tax administrations assume that taxpayers cannot be trusted to make accurate declarations and therefore treat the majority of refund claims as fraudulent. Administrative processes are often designed to increase compliance costs and delay the processing and payment of refund claims. This, along with a lack of adequate resources to pay VAT refunds, can result in the accumulation of large stocks of outstanding VAT refund claims.

VAT refunds typically account for a large proportion of gross VAT revenue collected. The VAT is not the only tax that requires refund payment. Income taxes, excises, and customs duties—depending on their design—may also require returning excess payments to taxpayers. However, refunding is more intrinsic to the VAT because of its design, which makes it particularly vulnerable to risk. Indeed, the magnitude of VAT refunds, sometimes exceeding 50 percent of gross VAT collections and accounting for several percentage points of a country's GDP, may expose weaknesses in VAT refund management and encourage tax fraud.

Administering VAT refunds requires a balanced approach that facilitates refunds for legitimate claims but also has robust anti-fraud and anti-evasion measures in place.³ An efficient VAT refund system should:

1. Not impose layers of administrative requirements and stringent legal restrictions on legitimate refund claims.

³The latter part is addressed more comprehensively in "Combating VAT Refund Fraud" (Andrew and Baer, forthcoming). The note discusses the nature and extent of VAT refund fraud in selected EU countries. It argues that this type of noncompliance requires the tax administration to adopt a coordinated strategy and deploy a range of countermeasures. While the note focuses on the EU, several of the lessons therein apply to countries at different income levels.

2. Be based on risk analysis to ensure that claims are processed. At the same time, the system should guard against refund fraud (as part of a broader, comprehensive VAT compliance and anti-fraud strategy covering all taxpayer obligations, including registration, filing, payment, and accurate reporting).
3. Be fully resourced, with revenues and refunds reconciled, accounted for, and registered in the national accounts to ensure transparency. All government departments with interests in this area (Ministry of Finance, Tax Administration, Statistics Department, and so on) must cooperate to ensure that the management of VAT refund operations is effective.

Building on earlier IMF analytical work (Harrison and Krelove 2005),⁴ this note guides policymakers in improving the design and administration of VAT refunds across various areas—from VAT policy to tax administration to public financial management (PFM)—in a unified manner and across all stages of VAT management, reflecting international good practices. It analyzes the results of a brief survey of VAT refund practices in 18 selected countries at various income levels,⁵ and reflects IMF advice to countries. The note also uses selected datasets, including those from diagnostic tools,⁶ to highlight key issues and draw lessons. While the note focuses on VAT refunds, it also addresses issues related to the management of VAT credits, which may lead to revenue loss whether these give rise to actual refund claims and payments or not.

The note is structured as follows: the next section discusses the rationale for issuing VAT refunds and the policy implications for an ill-functioning VAT refund mechanism. The following section provides an overview of VAT refund levels and assesses how these

⁴Harrison and Krelove (2005) examine the refund approaches of tax administrations in 36 developing, transitioning, and developed countries. They also evaluate the effectiveness of these approaches and suggest a best practice model that accounts for compliance issues faced by countries at different developmental stages. See also Keen and Smith (2007), and Chapter 15 of Ebrill and others (2001).

⁵The countries are Australia, Bolivia, Botswana, Costa Rica, Ecuador, Guatemala, Indonesia, Jamaica, Kenya, Madagascar, Mauritius, Morocco, Peru, Portugal, Sierra Leone, Uruguay, Zambia, and Zimbabwe.

⁶These include the Tax Administration Diagnostic Assessment Tool (TADAT), Revenue Administration Fiscal Information Tool/International Survey on Revenue Administration (ISORA), and Revenue Administration Gap Analysis Program (RA-GAP).

may reveal weaknesses in the management of VAT refunds. The penultimate section proposes a framework for managing VAT refunds, taking into account international experience and good practice. The final section concludes.

VAT Refunds: A Primer

Why Issue VAT Refunds?

The VAT is a consumption tax borne by the final consumers of goods and services (in most cases, households).⁷ By design, the VAT—unlike retail sales tax (RST)—is collected at all stages of the production-distribution chain, including on intermediate transactions. However, VAT is only paid on the value added at each stage. This approach, as opposed to the RST, strengthens enforceability, since tax is payable whenever a taxable supply is produced. This simplifies the process, as the seller has no need to distinguish between business-to-business and business-to-consumer transactions. However, a mechanism that adjusts for VAT paid on business input must be in place. Without this mechanism, the VAT becomes a turnover tax, leading to tax cascading and making the tax base greater than the actual value added at any given stage of production.

The most common approach to ensuring that the VAT falls only on final consumption is the invoice-credit method.⁸ According to this method, taxpayers can credit input VAT they have paid (and shown on their purchase invoices) against output VAT they have collected (and shown on their sales invoices). In some cases (such as those involving exporters or those investing heavily in business equipment or premises during the taxable period), taxpayers may not have sufficient output VAT (VAT collected on their sales) to offset their input VAT credits (VAT paid on their purchases). This leaves them with negative net VAT liabilities. These excess VAT credits should be refunded to taxpayers promptly.

⁷This category also includes governments, NGOs, and other entities deemed to be final consumers, for example, small traders or VAT-exempt businesses.

⁸Other VAT accounting methods, such as the subtraction method, are possible, and would also generate VAT refunds, albeit at lower levels (Zee 1995). Because that method is not widely used, this discussion of the VAT refund mechanism and its management focuses on the invoice-credit method.

Failure to refund excess tax credits turns the VAT into a tax on production, distorting and discouraging investment and production. Without a refund, the VAT cascades along the production-distribution chain and either inflates consumer prices or reduces business profits, depending on market conditions and the extent to which taxpayers can shift unrecovered VAT to their clients. If excess VAT credits are not refunded in a timely manner,⁹ they strain business cash flow (in extreme cases, even contributing to business failure), increase production costs, and lower investment returns. Thus, a well-functioning VAT refund mechanism has profound implications for overall competitiveness, productivity, and capital formation. A poorly functioning VAT refund mechanism may adversely affect the VAT design itself (see Section B in this chapter), further undermining the tax's efficiency and neutrality.

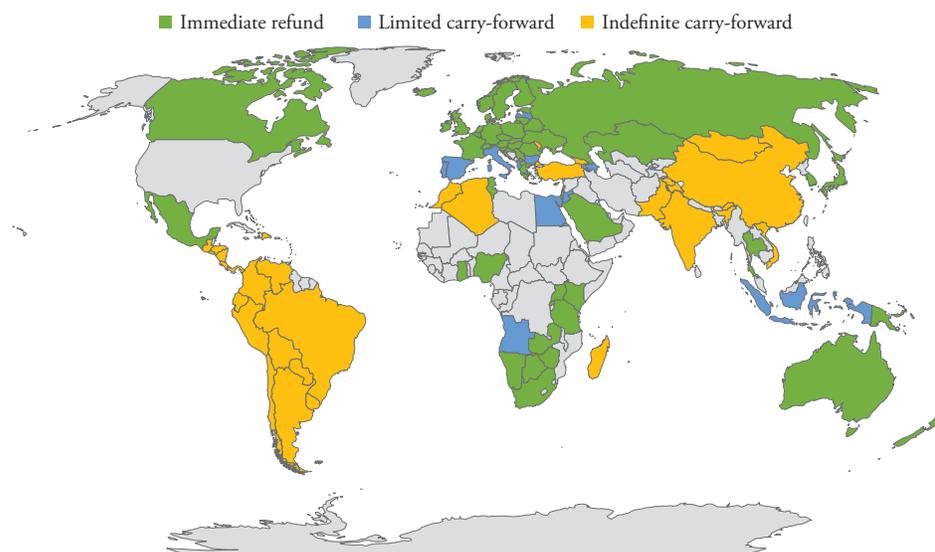
Refunding excess VAT is essential to an effective VAT system. However, the extent to which legitimate VAT refund claims arise varies from country to country and is largely a function of VAT design and tax administrative capacity. It is also a function of the extent of net exports as a proportion of GDP. Certain circumstances may place taxpayers in an excess VAT credit position, leading them to claim VAT refunds. Some are “structural” (for example, zero-rated exports), and some arise from other design choices (for example, zero-rated domestic transactions or use of VAT withholding mechanisms).

The most common situations that give rise to VAT refund claims are as follows:

1. Exports and other zero-rated transactions.
2. Investment and inventory buildup for either new businesses with no output VAT, or existing ones, for which spending on business expansion (input VAT) exceeds current sales (output VAT).
3. The existence of reduced VAT rates, which may give rise to a situation where different VAT rates are applicable to inputs and outputs, resulting in an output VAT that is less than the input VAT.
4. The use of VAT withholding and reverse charge mechanisms,¹⁰ where taxpayers conducting

⁹Good practice (resulting in an “A” score) for VAT refunds—as defined by TADAT’s standardized assessment criteria—is to pay 90 percent of VAT refund claims within 30 days.

¹⁰VAT withholding and reverse charge mechanisms differ. In the case of VAT withholding, a buyer retains a portion of VAT on his purchases (usually at a prescribed percentage of gross payment, for example, 10 percent) and pays this amount directly to the

Figure 1. VAT Refund Mechanism According to Current Law, by Country, 2019

Source: *E&Y (2019) Worldwide VAT, GST, and Sales Tax Guide*.

Note: VAT = value-added tax. The boundaries, colors, denominations, and any other information shown on the maps do not imply, on the part of the International Monetary Fund, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.

transactions (even if subject to a standard VAT rate) may not have enough output VAT to offset their input VAT.

A separate VAT refund category (issued to non-VAT payers and hence those outside the VAT system) involves refunds for diplomatic missions, foreign tourists, local governments (VAT compensation schemes), and foreign (nonresident) businesses. Examples of the latter include EU VAT systems, which allow for VAT refunds on eligible expenses (transportation, car rentals, hotel accommodations, training, restaurant meals, and so on) for nonresident businesses. Conceptually, such refunds are equivalent to zero-rating, where a buyer is entitled to receive goods (or services) free of VAT, but rather than receiving this benefit at the point of sale, the buyer is required to seek a refund.¹¹

Countries have differing mechanisms for refunding excess input VAT credits. There are three major approaches (see Figure 1, which shows practices across regions):

1. Immediate refund system (common in EU countries, Australia, and Canada), where a VAT payer can claim a refund for excess input VAT credit without delay, that is, at the end of each accounting period (usually one month).
2. Limited carry-forward system (used, for example, in Albania, Angola, Armenia, Bulgaria, Malta, and Spain), where a VAT payer can claim a refund of excess input VAT credit only after a certain period. Payers must carry forward their excess input VAT credit for a minimum period (usually between three to 12 months), during which the credit can be offset against output VAT, and—if there is any remaining credit—claimed and refunded at the end of the period.
3. Indefinite carry-forward approach, where a VAT payer has no right to claim a refund and must offset excess input VAT credit against output VAT, with a few exceptions, usually for exporters (for example, most Latin American countries, Algeria, China, Madagascar, and Vietnam), or with respect to certain inputs only (for example, investment and inventory buildup spending in Turkey or capital goods purchases in Mauritius).¹²

tax administration (on behalf of the seller). Depending on the amount withheld, the seller may need to seek a refund from the tax administration for the overpaid amount. Under the reverse charge mechanism, the buyer is responsible for accounting for and remitting the VAT associated with the transaction.

¹¹This approach is preferable to zero-rating at the point of sale, as it helps limit VAT system abuse.

¹²Turkey uses a positive list of cases for which excess input tax credits may be refunded (those resulting from exports, domestic supplies subject to zero or reduced rates, or supplies subject to VAT

The immediate refund system is by far superior to the carry-forward system. Although the latter ensures that excess input VAT credits will eventually be recovered, it is costly for taxpayers in terms of the time-value of money and the strain on business cash flow. It is even more costly and cumbersome when taxpayers are required to carry forward their excess input VAT credits indefinitely, with no refund claim rights.

For example, Turkish taxpayers with excess input VAT credits arising from investments may only recover their input VAT against their future output VAT and have no right to claim refunds. In practice, clearing excess VAT credits may take several years, and some taxpayers (for example, those who are bankrupt or have otherwise ceased operations) will never obtain refunds for their input VAT.

In principle, once VAT refund claims are approved, they should be paid in cash, in other words, using the same payment mode taxpayers use to pay their tax liabilities. Unfortunately, countries where the government is experiencing cash liquidity shortages sometimes resort to inferior noncash means to pay VAT refunds. These are usually government securities, such as tax certificates (for example, Barbados, Benin, Bolivia, Madagascar, Senegal, the Philippines, and Uruguay) or government bonds. The latter are used more commonly to clear stocks of unrefunded credits (for example, Mozambique and Ukraine). Tax certificates are mainly used to satisfy future tax liabilities and enable taxpayers to offset VAT refunds against other taxes. Because of the situation that is often observed in developing countries, namely that tax certificates are nontransferable or there is a limited (or no) market for trading government securities, paying VAT refunds in kind affects taxpayers' cash flow positions even more adversely and may be equivalent to not paying them at all. When there is a market for tax certificates (for example, Senegal), they are often traded at discounted rates, which forces taxpayers to absorb the decline in VAT refund value. This would not be the case if they were paid in cash. The use of tax certificates may also create an illicit market involving corrupt practices.

The existence of excess input VAT credits (which arise as a result of a taxpayer having more purchases (and corresponding VAT on inputs paid) than sales (and corresponding VAT collected from that sale)

in a given tax period) are inherent to VAT design. Provided they are legitimate, the sooner these credits are refunded, the better. Any deferral of input VAT recovery—either through carry-forward provisions, complex tax administration procedures that delay payment of approved refund claims, or the use of non-cash payments—burdens taxpayers unnecessarily and should be avoided. Governments should not view VAT refunds as tax benefits, incentives, or budget expenditures. A VAT refund reflects the fact that a taxpayer has paid an excess amount during a given tax period (linked to the nature and timing of their commercial transactions) and is fully entitled to recouping it. To ensure that this fundamental principle is followed, policymakers should establish a robust VAT refund management system.

Distorting VAT Design to Address Refund Problems

Poorly functioning VAT refund mechanisms may have profound fiscal policy implications—from adverse impacts on VAT design to broader macro fiscal challenges. These may include misrepresenting the fiscal deficit's size, less prudent spending, impairing treasury operations, accumulating expenditure arrears, and, at times, creating financing shocks.

In a well-functioning VAT refund management system, the benefits of taxing final consumption should outweigh the challenges of refunding excess input VAT credits. Unfortunately, a greater number of countries are seeking solutions that limit the need to pay VAT refunds, undermining proper VAT operation. One critical factor influencing the decision either to circumvent VAT refund obligations or alter standard VAT design is pressure from the business community (especially large investors) to obtain refunds promptly.

Significant and persistent weaknesses in VAT refund management often lead country authorities to resort to altering VAT design rather than addressing the underlying causes of the refund mechanism's ineffectiveness. Limiting the demand for VAT refunds then becomes a primary objective. Typical gambits aimed at limiting the amount of input VAT include import exemptions, zero-rating of domestic transactions, deferral of import VAT, deemed VAT liability schemes, and VAT grouping.¹³ These may be designed either as “objective”

withholding). Other cases, such as those resulting from investment or inventory buildup, do not qualify for refunds and must be carried forward indefinitely.

¹³These limit VAT refunds by eliminating input VAT (exemptions granted on imports or zero-rating domestic purchases of business inputs) or payment requirements. In the case of VAT deferral, VAT due on importation is deferred to the subsequent VAT return; it is

reliefs, where policymakers select certain types of goods and services believed to be largely capital goods or are otherwise predominantly used as business inputs, or “subjective” reliefs available to certain taxpayer categories (usually investors, exporters, or businesses in certain sectors, such as mining, petroleum, textiles, and so on).

While granting VAT relief¹⁴ on inputs may reduce the value of VAT refunds claimed, it may, and often does, exacerbate the underlying problem by inflating the overall claim volumes, albeit at lower values. This is especially true with zero-rated domestic transactions or deemed VAT liability schemes which push the problem up the value chain, where a supplier to, say, an exporter, has little or no output VAT and finds themselves in a refund position. This forces the tax administration to deal with a larger number of businesses seeking VAT refunds. Furthermore, rather than processing a few refunds from large taxpayers, it must process numerous smaller claims.¹⁵ This is particularly burdensome for tax administrations with limited capacity. In addition, practice shows that pushing the refund problem one level up the supply chain quickly results in demands for similar reliefs for newly affected businesses, leading to so-called VAT preference creep. If the underperforming VAT refund mechanism is not fixed, the VAT may quickly turn into an RST, but the tax administration may still face demands for additional VAT relief. Other schemes aimed at reducing VAT refunds are also problematic. Exemptions granted on imports create a bias against the domestic market (taxpayers are better off importing rather than using domestic suppliers) and are difficult to police. VAT deferral, which enables the release of imported goods without tax payment, requires close monitoring (if the activity is bogus or a subsequent tax return is never filed, the deferred VAT may never be paid). VAT grouping requires high administrative capacity and, if permitted, may be used by traditionally exempt

recognized as both input and output VAT, eliminating the need to pay first and then request a refund. In the case of a deemed VAT scheme, the buyer does not pay VAT charged on the supply, though it is assumed (deemed) that the supplier has collected it (a solution akin to zero-rating). VAT grouping limits the need for refunds if the group includes entities that are in refund positions, for example, exporters, and entities with positive VAT liability (in such a setting, the group may have enough output VAT to offset input VAT).

¹⁴Whether zero-rating, exemptions, waivers, or other (less common) types of VAT breaks.

¹⁵Interestingly, countries that have adopted VAT reliefs on the input side often use other policy and compliance measures, which result in an increased numbers of VAT refunds.

businesses (for example, financial institutions) as an alternative to vertical integration.

Limiting VAT refunds comes at significant cost, including compromised VAT design and lower revenue productivity. First, VAT reliefs greatly increase the VAT’s complexity, its administrative costs, and the taxpayers’ compliance burden. Second, they undermine VAT revenue productivity through weakened self-policing and associated leakage. Inevitably, unintentional revenue loss occurs, as a portion of zero-rated transactions ends up in the hands of final consumers rather than “intermediate” VAT payers. Revenue loss may be even greater when zero-rating is based on the nature of the supply (objective distinction), rather than the identity of the purchaser (subjective distinction). In other words, it is applied to certain categories of goods and services, such as trucks, pipes, concrete mixers, servers, software, and so on. Though largely used for business activities, some items are purchased by final consumers (households, educational, medical, and financial services providers), in which case VAT revenue is unduly foregone. A robust VAT refund system eliminates the need to introduce otherwise redundant reliefs or provides sound justification for removing them, thereby aligning the VAT with good international practices.

The VAT refund mechanism should be used to return genuine excess input VAT credits to taxpayers, not to provide direct subsidies. For example, Nepal uses the VAT mechanism to provide certain industries with export subsidies and cash benefits. Refunds are calculated based on output VAT; businesses are entitled to receive subsidies equal to 25, 50, or 70 percent of this amount. In the case of mobile phones, the refund (subsidy) is calculated based on input VAT (60 percent). For certain products, refunds are calculated based on taxpayers’ net VAT liabilities (at 25 percent for flour and 100 percent for match and tire tube production). Such practices violate fundamental VAT principles and may also contravene international trade rules that prohibit hidden trade subsidies (if not applied to domestic sales).

VAT Refunds and Fiscal Policy

Delaying or improperly accounting for VAT refunds creates significant fiscal policy challenges. When governments record gross VAT without properly accounting for VAT refunds, they inflate tax revenue and overstate genuine VAT collections, which should

be calculated on a net basis (gross collection minus refunds). Similar problems arise in indefinite VAT refund carry-forward systems, where all or certain taxpayers are not entitled to claim refunds and can only offset excess input VAT credits against future output VATs (for example, Latin American countries, Senegal, Sierra Leone, and Turkey).

Overstating revenue leads to at least two fiscal policy issues. First, it paints a false picture of available resources, which may result in less prudent spending, higher deficits, accumulation of payment arrears, and debt. Second, it implies that policymakers are committing resources that do not accrue to the government and will eventually have to be repaid to taxpayers who legitimately own these resources in the economic sense. This approach is tantamount to unauthorized borrowing and creates uncertainties for PFM and budget credibility. Yet, it is a tempting source of financing, as it is easily obtained without the processes and costs (for example, sinking funds) associated with bond issuance. This is especially true in cases where no interest—*de jure* or *de facto*—is paid on delayed refunds. When a government must pay interest on delayed refunds at levels that exceed the market rates, financing government operations through VAT refunds complicates procedures and generates additional costs.

Delaying payment of legitimate VAT refund claims increases a government's stock of arrears and, if these are not properly accounted for, blurs actual indebtedness and complicates budget execution and cash and debt management. Moreover, when the stock of unpaid VAT refunds becomes excessive, taxpayers (often backed by an actual or threatened slowdown in investment, production, or employment) tend to withhold their regular VAT payments and pressure the government to find immediate solutions. Thus, governments are forced to devise alternative financing sources to pay outstanding VAT refund claims quickly. A frequently used option—issuing additional debt—may not always be available or affordable. In this case, governments may have no choice but to issue government securities directly to taxpayers in lieu of cash payments (as was done in Mozambique and Ukraine). This increases government liabilities.

Improved VAT refund management can be viewed as part of a broader effort to improve fiscal transparency and accountability in the context of evolving fiscal challenges. The large share of refunds in gross VAT revenue (which can be as high as 50 percent) can encourage its misuse as a tool to create fiscal space

through delayed payment or nonpayment. Improving transparency in the VAT management process (including PFM) through better revenue forecasts and reliable payment systems can enhance the VAT system's transparency and accountability.

What Do VAT Refund Levels Reveal?

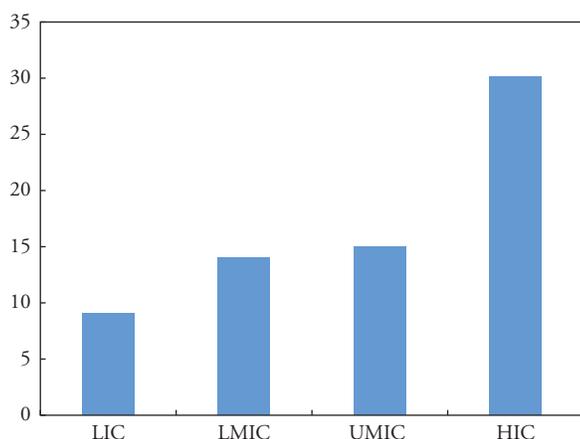
Under a standard “single rate” VAT system, VAT refunds should correlate with the economy's structure: the higher the export shares and capital formation (investment) in gross output, the higher the shares of gross VAT to be refunded. The higher the share of final consumption in gross domestic product, the lower the VAT refunds.¹⁶ But these relationships are often not borne out in practice, suggesting some deficiency in refund policy or implementation. VAT refunds are low or moderate in countries experiencing investment booms related to natural resource extraction (for example, Mozambique and Tanzania) or infrastructure and construction (for example, China and Turkey), or that have high export shares (for example, Thailand). In other countries (Canada, Democratic Republic of the Congo, Zambia), the VAT refund levels are relatively high. The significance of high and low VAT refund levels is discussed later in this paper.

In line with the findings of Harrison and Krelove (2005), the analysis presented in this note points to a stronger correlation between the magnitude of VAT refunds and a country's income level. As Figure 2 shows,¹⁷ in 2015, high-income countries paid VAT refunds that were equivalent to about 30 percent of gross VAT, compared to an average ratio of only 11 percent for low- and lower-middle-income countries. In several advanced and upper-income emerging market economies (for example, Australia, Canada, Denmark, Korea, Norway, the Slovak Republic, and South Africa), VAT refunds exceeded 50 percent of gross VAT. Countries with refund levels below 11 percent of gross VAT were mostly in Africa and Latin America (for example, Cameroon, Colombia, El Salvador, Ethiopia, Ecuador, Guatemala, Madagascar, Paraguay, Senegal, and Uganda).¹⁸

¹⁶See formula in Ebrill and others (2001), p. 158.

¹⁷Sources: ISORA and IMF survey data for 2014 and 2015. Definitions: LIC refers to low-income countries; LMIC to lower-middle income countries; UMIC to upper-middle income countries; and HIC to high-income countries.

¹⁸ISORA's second round did not cover Asian countries, except for those that are OECD members.

Figure 2. Refunds as a Percentage of Gross VAT, 2015

Source: ISORA, 2016.

Note: HIC = high-income country; LIC = low-income country; LMIC = lower-middle-income country; UMIC = upper-middle-income country; VAT = value-added tax.

There are many possible explanations for such results, including the extent to which domestic zero-rating, reduced rates, reverse charges, or local government compensation schemes are used. Yet, even after controlling for differences in rate structure, the results suggest that lower-income countries face greater challenges in managing VAT refunds. Lessons from the IMF's capacity development work support this observation. Countries that faced difficulties in reimbursing VAT on time—particularly during the 2008–09 global financial crisis—include Cyprus, Greece, Madagascar, Moldova, Mozambique, Tanzania, and Ukraine. Others have accumulated large amounts of excess tax credits carried forward because of past policy choices and VAT design. For example, in Turkey, where the Treasury had sufficient cash holdings to pay out approved refunds but taxpayers were not entitled to claim cash refunds arising from their investment spending, the stock of deferred VAT credit claims reached 5.5 percent of GDP in 2016. This exceeded annual net VAT revenue (5.0 percent of GDP in 2016) and has continued to grow by 0.7 percent of GDP every year.

A well-functioning VAT refund mechanism should not give rise to an accumulation of VAT credits; excess VAT credits should be paid as quickly as possible.¹⁹ High-income countries fare much better in this regard. As Figure 3 shows, the high-income countries in the

¹⁹According to TADAT benchmarks, good practice involves refunding 90 percent of claims within 30 days.

IMF RA-GAP sample²⁰ refunded an average of about 80 percent of excess credits compared to a ratio that remained below 20 percent in other countries.²¹ This ratio is inversely related to the total stock of excess VAT credits. On average, the VAT excess credit stock is relatively low in the IMF's sample of high-income countries (0.5 percent of GDP in 2012) compared to 1.7 percent and 2.5 percent of GDP for lower- and upper-middle-income countries, respectively.

VAT credit accumulation in high-income countries usually stems from the carry-forward system, where taxpayers accumulate credits (typically for six to 12 months) before eventually claiming them. In middle- and low-income countries, accumulated credit levels result from credit carry-forward schemes and deficiencies in managing VAT refunds. Figure 4 shows that the large stock of outstanding claims is attributable to delayed claim processing (for example, Guatemala, Kenya, Tanzania, and Zambia), payment constraints (for example, Burkina Faso and Cameroon), or both (Jordan). Similar challenges can be observed across all income levels.

VAT Refund Management Framework

General Framework

This section presents a framework for managing and paying VAT refunds (Figure 5 and Annex 1). It also identifies different practices and their implications and takes stock of international good practices for refund management across several areas, including tax administration, budget, accounting, debt, fiscal statistics, and treasury management.

The main steps of this framework, which are based on international good practices, follow.

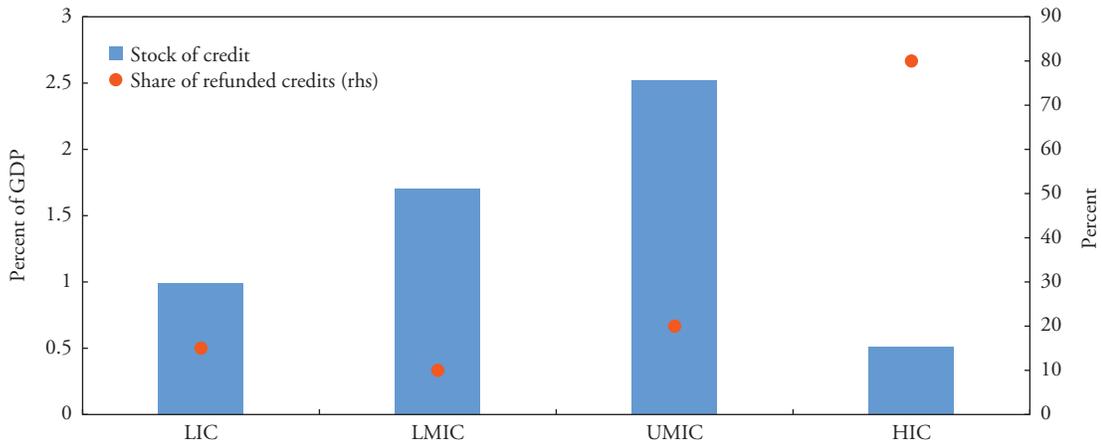
Tax Administration

The framework illustrated in Figure 5 and Appendix 1 should be guided by carefully planned,

²⁰RA-GAP is an IMF tool that enables countries to estimate the sizes of their tax gaps (differences between potential and actual taxes). To calculate the VAT gap, detailed data on VAT liabilities, payments, credits, and refunds are required for all VAT payers across all sectors of economic activity. This exercise often provides insight into VAT performance. To date, IMF staff has conducted 30 VAT gap estimates across Fund member countries.

²¹Analyses of VAT credit stocks and refunds is based on RA-GAP data.

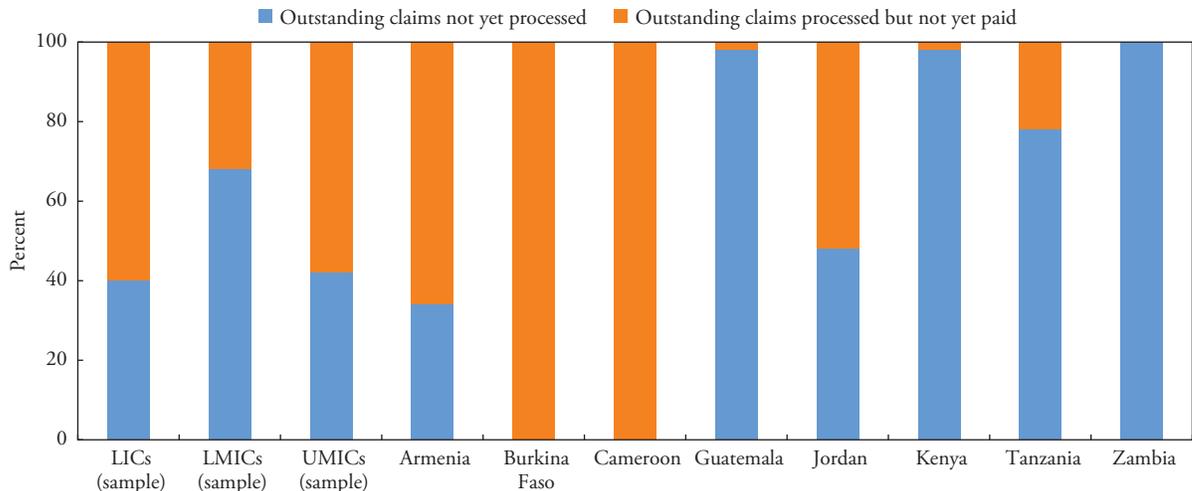
Figure 3. VAT Credits, 2012



Source: IMF staff calculations.

Note: Note: HIC = high-income country; LIC = low-income country; LMIC = lower-middle-income country; rhs = right-hand scale; UMIC = upper-middle-income country; VAT = value-added tax.

Figure 4. Breakdown of Outstanding VAT Refund Claims



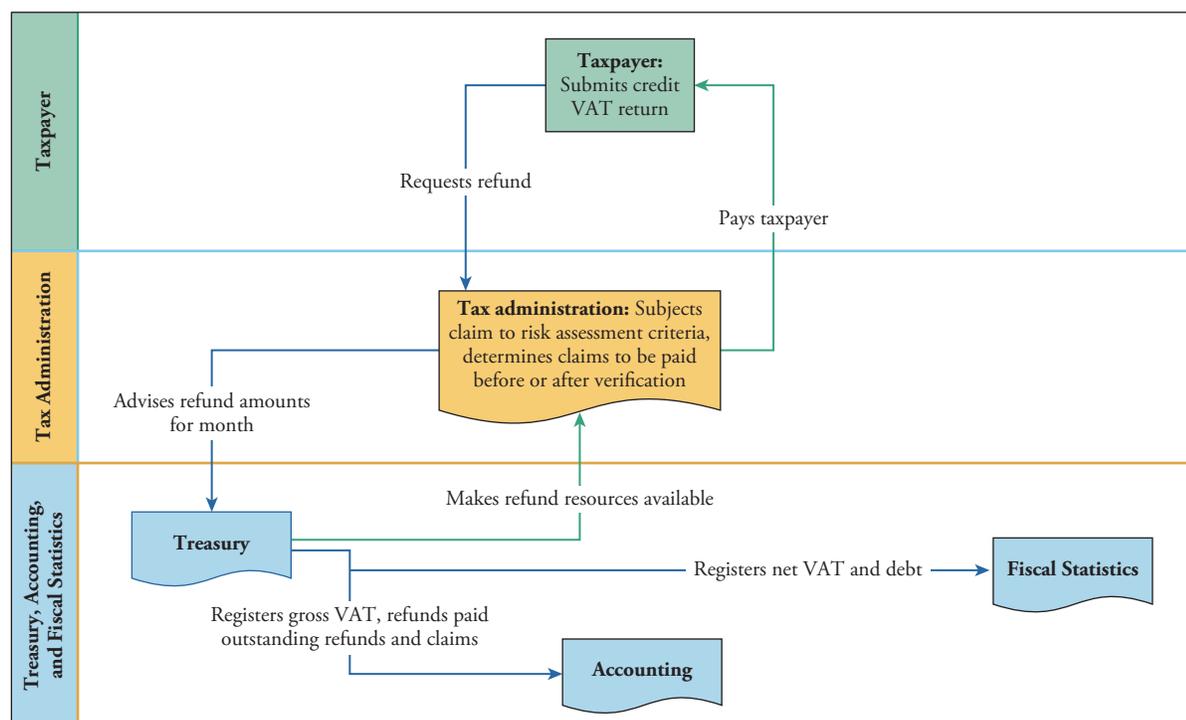
Source: TADAT (assessments carried out at various periods between 2015 and 2018).

Note: Country-specific data covers countries whose TADAT reports are public or approved for data use. Post-TADAT, Cameroon has made much progress in addressing funding constraints and reducing its stock of outstanding unpaid claims. LIC = low-income country; LMIC = lower-middle-income country; UMIC = upper-middle-income country; VAT = value-added tax.

coordinated, and executed VAT compliance and anti-fraud strategies.

- If a taxpayer’s VAT return has a net negative liability, they are entitled to a refund. The tax return should also serve as the VAT refund claim.
- As part of a broader VAT compliance and anti-fraud strategy, the tax administration screens the claim in real time using automated risk models and associated rules, as well as the cross-matching of electronic invoices (e-invoices) and third-party data.

- The tax administration authorizes low-risk claims for cash payment or offsets them against other tax liabilities within a legally specified time frame.
- Medium- and high-risk claims are subject to audit or other verification processes in accordance with the national audit and verification plan for the year, and within legally specified time frames. Auditing or verifying the claim may entail a simple desk review, single-issue audit, or comprehensive audit. Verified claims are either approved for payment or rejected.

Figure 5. A Framework for VAT Refund Management (Simplified)

Source: IMF staff.

Note: VAT = value-added tax.

The taxpayer is paid interest on delayed legitimate refunds that is equal to or greater than the market rates, starting at the end of the legally specified period (for example, 30 days after filing the claim).

- The tax administration maintains records of the number and values of VAT refund claims, approved claims, and amounts due to taxpayers. It also documents claims paid, interest paid for delayed refunds, claims rejected or readjustments made, and outstanding claims. When the tax administration chooses to offset VAT refunds against other tax liabilities, it must account for all taxes collected and offset for each taxpayer.

Public Financial Management

- First, the tax administration and budget department of the finance ministry must establish a formal agreement. This agreement is typically mandated in the country's regulations to avoid ad hoc decisions, such as tapping into the refundable portion of the gross VAT for political reasons or due to financial constraints.

- The budget department and tax administration agree on projections for gross VAT, refunds, and net VAT (gross VAT minus refunds) when establishing the annual budget plan and multi-annual projections. It is crucial that the tax administration provide the most reliable information on projected gross VAT, net VAT, and VAT refunds to ensure the credibility of the budget plan and expected cash flow for the next fiscal year. Throughout the year, the tax administration should submit periodic updates of this information to the budget department, following in-year collection and claims, according to an agreed procedure.
- The funding modality for VAT refunds (that is, drawn from gross VAT) must be enshrined in law and related procedures must be established.
- The finance ministry's accounting office maintains information on gross VAT, net VAT, refunds paid, and outstanding refund claims (including claims that have been processed and approved by the tax administration and those that have not been

Table 1. Refund Financing Modalities

Modality	Countries (Income Group)
Withholding full amount required for refunds (good practice)	Australia (HIC), Zambia (LMIC)
Withholding a fixed percentage of gross VAT	Botswana (UMIC), Guatemala (LMIC), Madagascar (LIC), Cameroon (LIC)
Withholding a fixed amount	Jamaica (UMIC), Kenya (LMIC), Peru (UMIC), Portugal (HIC)
Treasury appropriation	Costa Rica (UMIC), Ecuador (UMIC), Indonesia (LMIC), Morocco (LMIC), Uruguay (HIC)
Issuance of treasury bonds or tax certificates	Bolivia (LMIC), Uruguay (HIC)
Carry-forward of credit balances (no cash refunds)	Sierra Leone (LIC), Turkey (UMIC)

Source: IMF survey results for selected countries.

Note: HIC = high-income country; LIC = low-income country; LMIC = lower-middle-income country; UMIC = upper-middle-income country.

processed). The accounting office should enter this information into the government's balance sheet.

- The ministry of finance registers information on unpaid VAT refunds after the due date has passed and includes this information in the arrears and public debt reports.
- The department responsible for maintaining fiscal statistics keeps a register of the net VAT and incorporates it into the general government's revenue statistics (refunds as a reduction of gross VAT).

According to good practice, the specific procedures would be as follows:

- Daily gross VAT payments are transferred to the treasury single account (TSA),²² or central bank account if a TSA has not been created.²³ This avoids storing idle money in other accounts, maximizes the fungibility of cash resources, and reduces borrowing requirements and interest payments. It also ensures the timely payment of refunds.
- A subaccount of the TSA, with a zero balance, is established for periodically receiving (typically monthly) the approved amount required for the period's VAT refund payments. The key issue is to avoid holding idle funds in this account, maintaining a zero balance at the end of the day. This means transferring to the subaccount only the amount needed to pay the refunds, as instructed by the tax administration. The remaining balance should be transferred to the main TSA account at the end of the day. The tax administration period-

²²A TSA system represents a number of interlinked government bank accounts, including accounts with zero balances and one main bank account (at the central bank) into which all revenues are deposited, and from which all expenditures are disbursed.

²³The discussions in this note revolve around TSA arrangements, but apply equally to countries without TSAs. Countries that do not have, or are transitioning to, TSA systems often have banking arrangements that allow revenue transfers from commercial banks to central banks, with the commercial banks serving as intermediaries.

ically provides the treasury with information about resource requirements, based on refund claims it has approved. This information is important, as it also allows the treasury to include these amounts in the cash forecast, which facilitates transferring funds to the VAT refund TSA subaccount.

- The tax administration issues instructions for transferring the refund amounts from the TSA subaccount (usually lodged at the central bank) directly to the taxpayer's account at a commercial bank.

This process is generic, based on experience with good practices in VAT refund management. It is also based on a predictable financing mechanism (that is, withholding the required funds from gross VAT in a special VAT refund TSA subaccount), as is the practice in Australia and Zambia. This is the recommended practice, as it preserves the VAT's nature and ensures that sufficient funds are available to meet all refund claims. However, countries apply different methods that raise other challenges (Table 1), including budget appropriation of refunds or withholding fixed amounts or percentages of gross VAT.

VAT Administrative Practices and Legal Aspects

The VAT refund system is part of a broader self-assessment system, whereby taxpayers are expected to comply with their legal obligations, and tax administrations assess the validity of taxpayers' actions based on risk management (Harrison and Krelove 2005). For such a system to work, a clear and simple VAT law is needed.²⁴ The law should avoid imposing unreasonable administrative demands or significant burdens on taxpayers. Table 2 lists common examples of restrictions

²⁴A good self-assessment system also requires the tax administration to provide effective services that help taxpayers understand the law and their obligations, thereby minimizing unintentional mistakes.

Table 2. Examples of Poor Legislative and Administrative Practices and Recommendations

Processing Stage	Bad Practice	Implication	Good Practice
Return filing and refund claim	A taxpayer is required to apply separately for a refund, having filed a return with a negative net VAT liability.	Adds to taxpayer compliance burden and delays refund triggering if combined with other requirements.	The tax return is the sole document for claiming a refund. Refund processing is automatically triggered by the submission of a return with a negative net VAT liability.
	Refund claims are required to show proof of payment with respect to every single export transaction or import document from a third country.	Adds to taxpayer compliance burden.	Real-time cross-matching techniques are used to screen returns based on data from e-invoices, customs declarations, and other third-party sources.
	Restriction on refund entitlement, for example, refunds are not permissible for certain sectors or categories of goods or services. ¹	Creates cash flow burdens for taxpayers with credit balances. Results in tax credit accumulation.	Any taxpayer with excess tax credits is entitled to a refund.
	Refunds for exporters are allowed only if zero-rated transactions exceed a certain percentage of all transactions.	Creates cash flow burdens for affected taxpayers equivalent to the unrefunded amounts.	Claim is based on the sum of all output and input tax accrued during an accounting period.
	Mandatory carry-forward requirements must be met before a claim can be filed.	Refund delays and tax credit accumulation.	If carry-forward provisions are implemented, then short periods—for example, three months—are considered. Interest equal to or above market rates apply on balances that remain unpaid after the legal due date has come and passed.
	Use of tax certificates to compensate for refund payment. ²	Cash flow difficulties arise if tax certificates are not tradable in the domestic financial market.	Avoid the use of tax certificates. When this is unavoidable, tax certificates are tradable in the domestic financial market, but this can pose future budget deficit risks. Allow offsetting against other tax liabilities but monitor it frequently to identify irregularities quickly and include them in accounting records.
	Long time limits are set, within which a taxpayer can be refunded ³ and interest is not paid on delayed legitimate refunds. ⁴	Cash flow difficulties for businesses that will have to borrow money from the market to finance their operations or investments.	Set, publish, and monitor refund processing deadlines in accordance with good practices. Interest equal to or above market rates accrues on all outstanding legitimate refunds, starting one month after filing.
Verification	All refunds are verified or audited prior to payment.	Delays refunds and results in accumulation of tax credits and misallocation of enforcement resources.	A risk-based approach (except when subject to random audit) is preferable, with post refund verification of lower-risk cases.

¹Good practice requires excluding input claims relating to personal expenditures, that is, spending that is not used directly for business purposes (for example, entertainment, healthcare, household furniture), or deemed easily divertible for personal use (furniture, passenger cars, fuels except gas oils, phones, internet services, and so on). Some countries restrict refunds of otherwise eligible input tax credits, forcing taxpayers to carry them forward indefinitely (for example, most Latin American countries, with respect to all excess credits except those arising on exports; Mongolia and Turkey, with respect to investment; and Cyprus, with respect to excess tax credits arising from transactions subject to reduced rates).

²In Bolivia, Ecuador, and Uruguay, refunds are not made in cash, but rather, using treasury bonds or tax certificates.

³To date, only Australia meets the TADAT's good practice timeline.

⁴The majority of the sample countries do not pay taxpayers interest on delayed refunds (Bolivia, Ecuador, Guatemala, Indonesia, Kenya, Madagascar, Morocco, Sierra Leone, Uruguay, Zambia, and Zimbabwe). Some countries, like Indonesia, Kenya, and Zimbabwe, provide for interest payments on delayed refunds, but there is no evidence that this is being done in practice.

Source: IMF staff.

Note: TADAT = Tax Administration Diagnostic Assessment Tool; VAT = value-added tax.

that compromise a VAT refund system's effectiveness. Such restrictions complicate the VAT refund management system and adversely affect taxpayers' cash flow.

Improving Tax Administration Procedures

VAT Refund Processing

Typically, many aspects of the VAT control chain, including the refund processing system, must be improved in countries with low administrative capacity.

Box 1. Key Elements of an Anti-VAT-Fraud Strategy

Taxpayers who do not respond to the usual compliance interventions (for example, organized crime) must be compelled to pay their taxes by means of a coordinated strategy and countermeasures designed to combat noncompliance. This strategy should include the following elements:

1. Preventing fraud or tackling it at the earliest opportunity. Measures include proactive pre- and post-registration checks that identify potential fraud and profile suspected businesses; the implementation of new laws that eliminate any ambiguity regarding the proper or improper use of tax invoices; and a systematic, credible, prioritized, and transparent process of cross-referencing purchase invoices back to sales that have been declared throughout the supply chain. Tax administrations should also establish a communication strategy that asserts a zero-tolerance policy on fake invoices and discloses its commitment to exposing those producing and using fake invoices.
2. Increasing the financial risks for those who participate in, profit from, or facilitate fraud. Stronger sanctions are needed to signal clearly that deliberate system abuse will not be tolerated. The strategy should also focus on specific audits and prosecutions with the help of dedicated teams specialized in detecting and dealing with those who produce and use fake invoices.
3. Developing, implementing, and coordinating a range of interventions across government departments and with external stakeholders, both nationally and internationally. These interventions would include information exchanges concerning fraud trends and developments, and, if the law permits, on actual and suspected fraudsters. These procedures must emphasize close collaboration, including establishing a special anti-fraud unit comprising officials from the tax and customs administrations and other relevant government agencies.
4. Ensuring that sufficient resources, particularly human resources and skilled analysts, are deployed to combat fraud.

The first step would be to conduct a comprehensive review of existing administrative procedures to identify steps that do not contribute to the process and that can be eliminated without increasing compliance risk. Redesigned administrative procedures, from registration to accurate reporting, should be accompanied by effective internal controls that address process gaps, which may introduce or increase risk and influence the approach to VAT refund processing. In part, this will depend on the scope of the tax administration's broad VAT compliance and anti-fraud strategy.

The broader anti-VAT-fraud strategy must include special programs aimed at preventing refund fraud. This can be achieved by implementing a coordinated strategy and deploying a range of measures that combat the threat (Andrew and Baer forthcoming) as summarized in Box 1. Developing and deploying a combination of well-planned and coordinated interventions is critical, as no single intervention will resolve the problem of VAT refund fraud.

Ideally, VAT compliance risks should be monitored continuously in (or close to) real time. This approach facilitates the real-time identification of claims that

are deemed low-risk and can be refunded quickly. It also provides critical information on medium- and high-risk refund claims that can help determine the necessary actions, including the types of verification required. Box 2 provides an example of the real-time risk model used by the Irish tax administration.

Defining objective risk factors requires analyzing past refund audit results and other taxpayer behaviors to identify characteristics that suggest false refund claims. Table 3 shows selected profiling indicators and the tax administration's possible responses based on level of risk. The indicators below are typically programmed into real-time automated risk rules, which are used to screen VAT returns to identify suspicious ones. These are then flagged for verification. The effectiveness of such screening will depend on the availability of reliable third-party data available in real time (such as e-invoices or customs data), and the availability of subject matter experts and risk analysts. To keep pace with new skills, innovation, and technology, tax administrations (including those of more advanced countries) must continuously invest in these areas. In low-capacity countries, basic screening techniques,

Box 2. Ireland: VAT Real-Time Risk Model

The Irish revenue authorities have expanded their risk management scope by incorporating real-time risk analysis into their compliance and collection programs. The new approach was introduced to assess VAT risk and identify suspicious VAT returns by making better use of internally available data. This rules-based method has been improving noncompliance prevention and detection.

The VAT rules include primary controls and taxpayer-specific data, such as return and payment history, company status, and return and payment compliance for other taxes. Once the rules are applied, a

risk score is produced, which is used to categorize cases as either green (low-risk), with any VAT refund due being paid; orange (medium-risk); or red (high-risk), which requires staff intervention and refund claim deferral.

The success of this risk-based approach highlights the importance of data analysis and risk management. In 2015, more than 58,000 VAT cases categorized as red were examined, resulting in an indirect yield of EUR 168 million.

Table 3. Possible Risk-Based Approach for VAT Refund Claims

Risk Factor	Illustrative Indicators of Risk Level	Appropriate Response to Refund Claim
Low risk	<ul style="list-style-type: none"> Regular exporter with two years of export history. Records show that account books have been properly maintained for the last two years. No evidence of fraud or significantly overstated refunds have been found in the last two years. History of accurate, timely remittance of all taxes. VAT monthly returns have been audited twice in the last 36 months. Refund claim level is in line with previous valid applications. Claim is below trigger value.¹ 	<ul style="list-style-type: none"> Claim would be approved without conducting a full audit. Claims would be subject to random selection for post payment review.
Medium risk	<ul style="list-style-type: none"> Refund claim exceeds previously approved amounts considerably. Claim exceeds stipulated trigger value, but otherwise meets the low-risk classification. All past VAT and income tax returns filed with no material arrears. 	<ul style="list-style-type: none"> Conduct desk verification. Management judgment to be applied regarding appropriateness of prepayment audit.
High risk	<p>VAT taxpayer meeting any one of the following tests would be classified as high risk:</p> <ul style="list-style-type: none"> First-time refund claim. Refund claim exceeds trigger value. Claim deviates significantly from normal claim pattern. Previous claims rejected or significantly reduced during audit. Currently in arrears for any tax. Penalized for late payment or underreporting within last 12 months. 	<ul style="list-style-type: none"> Automatic desk verification used to inform field audit selection. Conduct field audit of this VAT return only.

¹Trigger value refers to the claim's size. Its (associated/assigned) threshold, as defined by the tax administration, determines risk level. It may be a stipulated amount or combination of other risk criteria.

Source: IMF staff.

Note: VAT = value-added tax.

while labor intensive, can still be implemented using simple spreadsheet equations, and continuously updated with taxpayer data.

The VAT refund verification regime should reflect compliance risks and be intrinsic to the tax administration's annual verification plan. Developing countries with less mature tax administrations often lack structured approaches for identifying VAT refund risks and subsequent responses. In a number of developing countries, taxpayers filing VAT refund claims are automatically subject to audit and, in some cases, to full

audits of all revenues for multiple periods. This leads to significant backlogs and delays in refund processing. Effective revenue administrations have recognized that a mix of audit types, including registration checks, advisory visits, record-keeping audits, desk audits, single-issue audits, audit projects, comprehensive audits, and fraud investigations, are needed to achieve high compliance levels. Clearly, many tax administrations must improve risk management across the VAT cycle to ensure that VAT refund claims are appropriately managed and that refunds are paid without

Box 3. Georgia: VAT Administration Reform

Georgia's antiquated VAT system automatically approved only 9 percent of all cash refund requests. By law, taxpayers were required to request cash refunds. The Georgia Revenue Service (GRS) focused on these cash requests and audited all of them. Credit declarations with debit returns and no cash refund requests generally escaped the system's scrutiny. As a result, taxpayers did not request cash refunds and the stock grew to 1.6 billion GEL (about \$0.5 billion) over time.

Under a project funded by the IMF's Revenue Mobilization Thematic Fund, a multi-partner initiative, the authorities have agreed to align the VAT processing system with international good practice. This includes the TADAT standard, which requires 90 percent of all credit declarations to be approved for refund within 30 days, subject to risk screening, ex post audits, and some ante checks. A strategy for significantly reducing existing credit stock must also be developed.

The IMF provided extensive capacity development in developing an automated VAT system (AVS), which assesses the risks of all VAT declarations. The IMF is also helping to develop a strategy that addresses the large credit stock. The AVS is equipped with a broad set of refund risk indicators characterized by the application of sound "top-down" processes, along with a methodology for ranking and prioritizing risks. Declarations rejected by the AVS are subjected to validation and other compliance activities, including audit.

The AVS, which was introduced in February 2019, is performing well and has resulted in a sevenfold increase in both the number and value of approved credit returns. The number of automatically approved credit declarations has surpassed 90 percent, and the value of approved credits is now above 70 percent. The value of cash refunds requested remains low, with only 28 percent of total credits having been refunded, as taxpayers must continue to apply for refunds. However, in July 2019, an amendment to the tax code was passed, allowing the GRS to issue cash refunds without taxpayer requests. Beginning in July 2020, the GRS will apply this amendment to VAT refund issuance.

With IMF technical support, the GRS has developed a compliance improvement plan (CIP) for 2019–20. This plan focuses on the GRS's top four compliance risk areas, including VAT compliance, in recognition of the VAT's large contribution to government revenue. The CIP seeks to address incorrect VAT declarations by assessing the risks as high. Typical errors include turnover reduction; incorrect adjustments and apportionments; incorrect prepayment treatment; restructuring to avoid or reduce VAT; and incorrect and fraudulent refund claims. Following IMF advice, a unit was formed in January 2018 to follow up on VAT filing compliance. On-time filing rates have increased from 65 percent in 2015 to 92 percent in July 2019.

subjecting all claims to comprehensive scrutiny, while ensuring that systems and procedures are in place to identify and deal with fraudulent claims. Box 3 describes the experience of Georgia, which has made progress in implementing comprehensive VAT administration reforms.

Evaluating audit results is important, as this helps tax administration officials draw lessons for improving risk assessment parameters and appropriate compliance initiatives. If a large proportion of VAT refund claims is rejected, this suggests that the VAT control system has serious problems that must be addressed.²⁵ Experience based on IMF capacity development has shown

that in developing countries with weak administrative systems, claims are often rejected because they cannot meet the excessive requirements, such as providing copies of supporting documentation (for example, VAT invoices) proving the refunds' legitimacy.²⁶ Other reasons may include fraud or lack of knowledge about certain aspects of the VAT, especially in countries with low VAT registration thresholds. A thorough understanding of the causes behind these high rejection rates would help administrations design response strategies, which might include audits or taxpayer education campaigns focused on a recalcitrant sector or a particular group of taxpayers.

²⁵For example, during the 12-month period covered by the respective TADATs, about 10 percent of claims (by value) were rejected in Guatemala and Jordan; 23 percent were rejected in Kenya; and 34 percent were rejected in Tanzania.

²⁶Kenya, Morocco, Zambia, and Zimbabwe require the following evidence to support applications: copies of invoices of all input VATs being claimed, copies of output taxes charged, and proof of export.

The tax administration should monitor the performance of its refund processing system on an ongoing basis. This requires the proper tracking of VAT refund claims from the time they are filed to their final resolution (including records of the various flags and interventions along the process chain), as well as subsequent analyses. This will enable administrators to monitor the efficacy of the risk criteria, confirm that they are properly calibrated, and gauge the various verification programs to ensure that they are producing the desired outcomes.²⁷

The Customs Administration's Role

The custom administration's role is critical. It provides real-time data on the VAT base, amounts of VAT paid, timing of imports and exports, and activities relating to analysis and intelligence. When a robust exchange of information program is in place, the customs and tax administrations keep each other fully informed of investigations, share collected intelligence, and work together to establish high-risk taxpayer profiles. Efforts to control VAT refund claims must include mitigating measures for fictitious VAT claims involving imports (for example, fraudulent overstatements of VAT paid) and exports (for example, goods that have not actually left the country). While exchanging information on imports would address the former, to address the latter, customs should conduct selective border checks of exported goods, including their valuation, focusing on high-value export declarations.

Dealing with Buildup of Outstanding Refund Claims

In countries with large VAT refund backlogs, controlling and preventing such buildup from recurring is critical. The tax administration should review each of the significant claims, subject to funding availability and human resources. The objective would be to assess the real risk associated with each case and quickly clear low-risk refund cases. More specifically, a tax administration could: (1) review all outstanding claims and identify the age of the claim and amount involved;

²⁷The Australian Tax Office's (ATO) experience is illustrative: in the 2000s, taxpayers attempting to test the VAT refund system began presenting numerous small refund claims in the hopes that such claims would "fly under the radar" of the administration's risk filters. However, ATO officials detected this trend and began monitoring it closely, eventually adjusting the risk parameters to thwart such activities.

(2) prioritize the case for clearance, based on the risk, age (oldest to newest), and claim value; (3) establish a small team of competent senior officers to review each of the priority cases and identify which refunds can be released without further checks; and (4) obtain supplementary resources from the finance ministry to manage the refund claim backlog. The finance ministry's commitment to providing adequate resources for clearing the backlog is critical. This can be accomplished with a special lump-sum appropriation. Several sub-Saharan African countries have followed such strategies with varying degrees of success (for example, Cameroon (2017), Côte d'Ivoire (2017), and Kenya (several times, the latest being in 2019)).²⁸

Improving Public Financial Management Procedures

Budgeting for VAT Refunds

Governments should not treat gross VAT as final and available for spending. Only net amounts of VAT (gross collection less refunds due) should be budgeted on the revenue side and used for funding government expenditure. For this reason, VAT refunds should not be featured in the annual budget law. Gross VAT and VAT refunds can be presented in budget reports only for informational purposes. On the revenue side, if VAT is recorded on a net basis, VAT refunds will have been taken into account. This is the simplest, preferable option for handling VAT during the budget preparation, approval, and execution process. The first budget revenue estimate associated with VAT collection should be updated during the budget execution period according to new information provided by the tax administration.

In some countries, gross VAT is recorded on the budget's revenue side, and, symmetrically, VAT refunds appear on the expenditure side. This is a not recommended practice; VAT refunds should not be considered budget expenditures because they are not government-owned resources and, unlike other spending, do not require parliamentary scrutiny. Other drawbacks include the following:

1. The lack of sufficient budget expenditure appropriation—due to various factors, including the inability to predict refund levels adequately—leads to unpaid claims or the creation of supplementary

²⁸In Cameroon, VAT refund claim stocks were paid off using measures that were established to avoid further accumulation.

budgets that delay the payment process and undermine the refund payment system.

2. “Expenditure” has an important meaning in accounting, indicating a decline in government wealth, when, in fact, the refunded amount never did belong to the government.

According to the IMF’s *Government Finance Statistics Manual 2014 (GFSM 2014)*, statistical treatment should also involve reporting VAT revenue on a net basis.

Treasury Operations

All gross VAT revenue collected should be transferred to the TSA daily, as is the case in many countries with TSA systems (for example, China, Costa Rica, Indonesia, Morocco, and Portugal). Ideally, commercial banks would receive the tax revenues collected, which should be transferred to the TSA or central bank account daily. The commercial bank’s function should only be to receive deposits. Refunds should be paid out of the TSA or central bank account, not from the commercial bank’s deposit accounts. This ensures accurate record keeping and minimizes the risk of unauthorized expenditure.

As a good practice, the tax administration should manage the VAT refund TSA subaccount (zero balance), as is the case in Australia, Kenya, Madagascar, Mauritius, Zambia, and Zimbabwe. This means that the tax administration should be responsible for authorizing VAT refund payments in accordance with risk-based verification procedures. Also, the refund amounts should be included in the treasury’s cash flow projections on a separate line and updated monthly. In some countries, such as Guatemala, Ecuador, and Peru, only the treasury manages the VAT refund TSA subaccount. This is not good practice, as the treasury is not privy to the same information as the tax administration and may have other incentives for managing the funds, such as prioritizing cash management pressures over prompt VAT refund payments. These competing incentives may hinder the VAT refund system and its functioning.

The VAT refund TSA subaccount should be a zero-balance account. That is, it should be designed to receive the entire approved amount for a particular period, following a previously agreed timeline. The key issue is to avoid holding idle funds in this account by transferring the refund amounts needed. The tax administration should periodically provide the treasury

with information on the number of resources required, based on refund claims approved by the former during a specified period. This information is important, as it allows the treasury to facilitate fund transfers to the VAT refund TSA subaccount.

In sum, the preferred good practice option is to maintain a VAT refund subaccount in the TSA (zero balance) at the central bank. The exact amount of approved refunds should then be transferred to the subaccount on a periodic basis, based on the tax administration’s information on approved claims. This should be complemented by a legal framework requiring the government to pay interest on unpaid or unprocessed claims after the due date has passed.

Impact of VAT Refunds on Public Debt

When a VAT refund claim is not processed or paid within the due date, the amount should be considered a government liability and recorded under government debt for accounting and statistical purposes. Every month, the tax administration should report the amounts pending reimbursement after the due date to the accounting and statistics office. These should be considered governmental tax arrears and debt (according to law or practice).

Accounting and Financial Reporting of VAT Refunds

The accounting office should record all transactions. Gross VAT collected, refunds paid, refunds due as debt, and the accounts will be reconciled with treasury and tax administration information.

The best practice for the VAT refund accounting method is accrual accounting. When applied correctly, this method enables future refund payments and only counts net VAT as accruing to the government.

An accrual-based refund should be traced back to the event that generated the overassessment or overpayment. For the VAT, revenue would be recorded when it is earned by the government, and the refund would be recorded when it is due to the taxpayer. These tasks will be performed when the tax administration can reliably evaluate both the revenue and refund, even if the cash has been received or is disbursed at a later date. When using a cash-basis of recording, a refund is recorded at the time of payment. A modified cash basis accounting framework—in which some transactions are recorded when cash movement occurs (cash basis of accounting), and others are recorded when economic events are triggered (accrual basis of accounting)—

is not informed by any definition in international accounting standards.

According to generally accepted accounting principles and best practices, financial statements should include the following basic information:

- In the cash flow statement, inflow (gross VAT revenue collected by the tax administration) and outflow (VAT refunds paid to taxpayers, regardless of when the related revenues were credited) should be recorded at the time of cash movement.

When preparing a balance sheet, best practice dictates using an accrual basis of accounting. That said, only a few countries have adopted accrual accounting so far. Those that have done so record VAT on a net basis in their financial statements.²⁹ The entity preparing and presenting the financial statements should apply the IPSAS 23 to revenue accounting. The IPSAS 23 stipulates the following:

- “An inflow of resources from a non-exchange transaction [taxes and transfers] recognized as an asset shall be recognized as revenue, except to the extent that a liability is also recognized in respect of the same inflow.”
- “Revenue from non-exchange transactions shall be measured at the amount of the increase in net assets recognized by the entity.”
- “An entity shall recognize an asset in respect of taxes when the taxable event occurs, and the asset recognition criteria are met.”

When transitioning to an accrual accounting system, accounts payable should be recognized as liabilities. Accounts payable include unpaid invoices that the government owes to the commercial sector, as well as other pending payments (for example, tax refunds) owed to third parties, such as citizens or international institutions (Cavanagh and others 2016). VAT receivables (gross revenues that taxpayers owe the tax administration) should be recorded as receivables (assets). VAT refunds (owed by the tax administration to the taxpayer) should be recorded as payables (liabilities). Therefore, in some countries, the significant outstanding VAT refund stocks that have accumulated over

²⁹For example, the UK’s financial statement notes that, “where output tax is charged and input VAT is recoverable, the amounts are stated net of VAT. The net amount due to, or from, HM Revenue and Customs in respect of VAT is included within receivables and payables in the Statement of Financial Position” (*Whole of Government Accounts*: year ended 31 March 2012).

the years should be recorded as liabilities in financial statements. In addition, disclosure of the age of these payables is recommended, as they would give rise to interest payments after the legal due date.

Fiscal Statistics

Statistical manuals provide detailed guidance on tax recording, including how and when to record taxes as government revenue. The IMF’s *GFSM 2014* aligns with the *System of National Accounts 2008 (2008 SNA)*, both of which state that only taxes that are likely to be collected should be considered revenue.

Both manuals provide specific guidance on VAT and recognize that VAT and similar systems are deductible taxes (*2008 SNA*, Section 6.56).

Consequently, the *GFSM 2014* (Section 5.27) states, “In the case of a value-added tax, taxpayers other than final consumers normally are allowed a refund of taxes paid on purchases. Even if this refund exceeds the taxes payable by an individual taxpayer, the net refund is recorded as a reduction in that category of tax.” Also, Section 5.58 states that “only the net amount of VAT is recorded after deducting refunds.” Thus, VAT receipts (or receipts for any similar deductible taxes) should be recorded on a net basis under government revenue.

Applying these guidelines is relatively straightforward when government revenue is recorded on an accrual basis, since the estimated refunds and gross revenue collection are recorded simultaneously. The main issue will be estimating these future refunds. However, government finances recorded on a cash basis may cause a substantial lag between revenue collection and corresponding refunds paid in the future.

Conclusions

The timely refunding of excess VAT credits is indispensable for the proper functioning of the VAT. Failure to refund legitimate excess VAT credits promptly turns the VAT into a tax on production, leading to cash flow problems for compliant taxpayers and discouraging investment and production.

Weak VAT refund management practices could also have profound fiscal policy implications, including an inaccurate measurement of the deficit and spending overruns, poor budget credibility, impaired treasury operations, and the accumulation of tax arrears. At the same time, for its refund mechanism to be credible, the tax administration must ensure that it has the strat-

egies, processes, and powers to identify and quickly act to combat VAT refund fraud.

This note offers eight broad guidelines for improving the administration of VAT refund mechanisms, which are critical to good VAT management:

- The legal framework should be reviewed by the government to ensure that VAT refund requirements, procedures, and documentation are as simple as possible. The treasury and tax administration should coordinate closely and VAT regulations should reflect the minimum number of requirements for the effective payment of legitimate VAT refunds.
- As part of its overall refund management approach, the tax administration should prepare a strategy and be prepared to deploy a range of measures to combat VAT refund fraud, including automated risk analysis procedures for assessing claims in real time. There should be a robust exchange of information program between the tax and customs administrations, and they should keep each other fully informed of investigation cases, share intelligence collected, and cooperate to establish the profiles of high-risk taxpayers.
- The ministry of finance should determine the resources required to pay VAT refunds based on the actual amounts required to pay approved refunds within a given period.
- A robust assessment of net VAT based on reliable information is needed as this will improve tax revenue and budget forecasts and strengthen treasury cash management.
- All refunds should be financed out of gross VAT. Only net VAT (gross VAT minus refunds paid) should be reflected as revenue in the government budget. VAT refund estimates could be presented as memorandum items in the budget.
- The treasury should maintain a zero-balance subaccount within the TSA, where the amounts needed to pay the VAT refunds are transferred based on tax administration information.
- After the statutory due date, the outstanding stock of VAT refund claims should be recorded as governmental liabilities and included under government debt. This would improve the visibility of tax arrears for better monitoring.
- VAT revenue should be recorded on a net basis for purposes of fiscal statistics.