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SELECTED ISSUES

August 26, 2025

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ENHANCING MONETARY POLICY TRANSMISSION IN ALGERIA,

Algeria is actively pursuing reforms to modernize its monetary policy framework, with a focus on enhancing the role of interest rates in achieving price stability. The new monetary and banking law (MBL) provides the necessary operational and organization tools while the authorities are improving the capacity in macroeconomic forecasting. This paper analyses the monetary policy transmission in Algeria. The results suggest that the interest rate channel is relatively weak as the BA focuses on liquidity operations. A focus on interest rate tools, financial sector reform and central bank independence would help to improve monetary policy transmission in Algeria. Section A describes the monetary policy framework and the medium-term macroeconomic environment in Algeria. Section B contains empirical analysis and the results. Section C describes the current structural impediments to a more effective monetary policy transmission and section D concludes with policy recommendations to enhance the effectiveness of the monetary policy transmission.

A. Algeria's Monetary Policy Framework

Macroeconomic Background

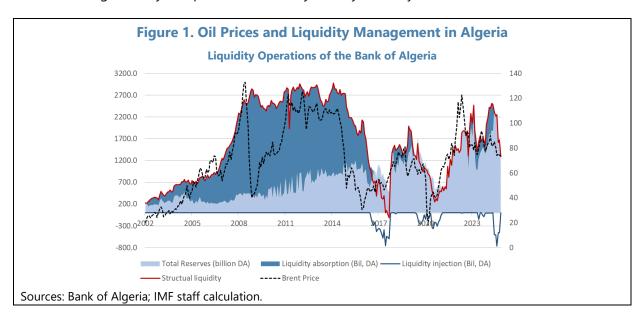
- 1. Hydrocarbon exports have been the main determinant of bank liquidity in Algeria since the 2000s. The period between 2007 to 2015 was characterized by high hydrocarbon prices and export revenues, which translated into large accumulation of net foreign assets and abundant liquidity in the banking system (Figure 1). Therefore, until 2015, the Bank of Algeria (BA) was predominantly concerned with absorbing excess liquidity in the financial system. It kept reserve requirements at high levels (Figure 2 panel 1) and absorbed additional liquidity in bilateral operations with the banks. Furthermore, during times of high hydrocarbon revenues, fiscal savings were accumulated in the FRR ("Fonds de regulation des recettes").²
- 2. The collapse of oil prices in 2015 brought about a change in Algerian monetary policy. In 2015, the collapse of oil prices led to lower deposit growth and steady decline in net foreign assets up until 2021 (figure 2 panel 2). As a result, the system-wide bank liquidity declined, triggering a change in the BA's monetary policy regime. In 2016, banks started to use refinancing operations, the BA lowered the reserve requirement ratio significantly (Figure 2 panel 1) and started to publish the "taux directeur", the reference policy rate in 2017 (Figure 4 panel 1). In this new environment, the BA became more active in managing liquidity in the banking system. It continued to absorb liquidity bilaterally when export revenues rose, as was the case over the last three years on the back of the Russia-Ukraine conflict and actively injects liquidity in open market refinancing

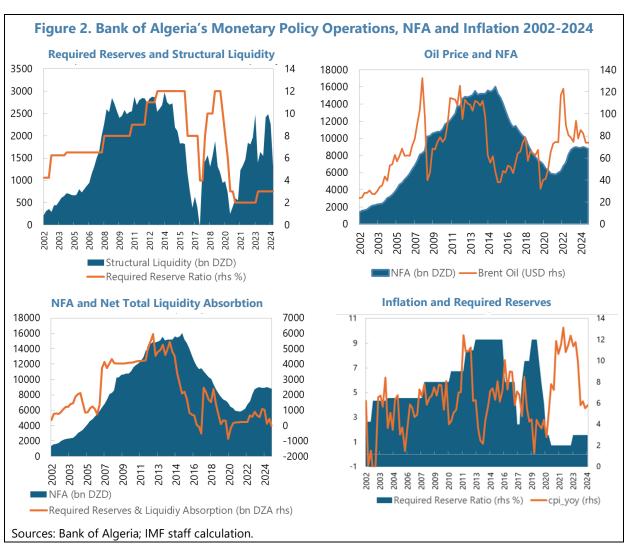
¹ Prepared by Gian Plebani and William Gbohoui. The authors would like to thank the authorities for their invaluable assistance in providing data and for constructive comments received during the presentation and discussions of this work at the mission's outreach event.

² FRR refers to the revenue regulation fund of the Algerian finance ministry which is used to store fiscal savings.

operations when necessary. The BA injected liquidity during the COVID-19 pandemic and most recently, on the back of strong demand for government credit and falling oil prices (Figure 1).

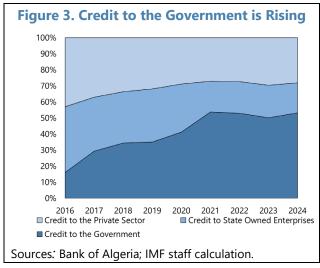
- 3. Large government financing needs dominate the liquidity demand side. Credit to the government as a share of total credit has been on the rise since 2015 and stood at 53 percent in 2024 (Figure 3). In times of low hydrocarbon prices and large fiscal deficits, the BA faces pressure to help financing the government. In 2017, Algeria resorted to direct monetary financing and in 2021/22 the government swapped 11.3 percent of GDP worth of SOE loans for government bonds with SOBs, to help the SOBs refinance the economy and the government under a special refinancing operation ("Plan Spécial de Refinancement", PSR).
- 4. Monetary policy has broadly kept price stability despite occasional spikes in inflation. The large liquidity absorptions during times of high export revenues, price controls, and a relatively stable exchange rate, helped keep inflation under control in Algeria. The most recent surge in inflation globally after the COVID-19 pandemic reopening led to a peak of 10 percent of headline inflation year over year but was contained relatively quickly down to 3 percent by end of 2024 (Figure 2 panel 4).
- 5. Given the structure of the banking system in Algeria liquidity developments may differ across banks. One structural difficulty of the Algerian monetary system is that the liquidity profile of the different banks is highly asymmetric. Most assets are concentrated among a few SOBs whilst the one bank of the state-owned oil enterprise receives almost all export revenues. It has a structural liquidity surplus while the rest of the system may be in deficit. The BA actively balances this out by applying bilateral liquidity absorption (with this bank) and injects liquidity more broadly via open market operations. The uneven distribution of liquidity makes the broad tool of reserve requirement adjustments less useful. The interbank market is growing as it went through a structural shift after 2015 when liquidity in the system started to become scarce (Figure 4 panel 4). However, it is not yet effective enough to fully compensate for the asymmetry in the system.





Monetary Policy Tools and Objectives

6. The BA has three policy tools at its disposal: liquidity management, interest rates and the exchange rate.³ The liquidity management tools consist of the required reserves and open market operations with a seven-day, three-and six-months auctions facilities, bilateral absorptions, the marginal lending and the excess reserves deposit facilities. Potential policy rates are the "taux

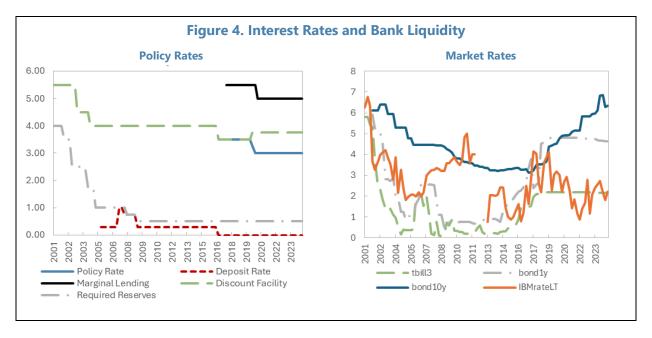


³ Homepage of the "cadre reglementaire of the BA: https://www.bank-of-algeria.dz/cadre-reglementaire-2/

directeur" introduced in 2017,⁴ the discount rate and the effective interest rates from the various open market operations mentioned above. The exchange rate has occasionally been used to contain price pressures, a policy that is easily implemented due to the price-maker status of the BA on the forex market.

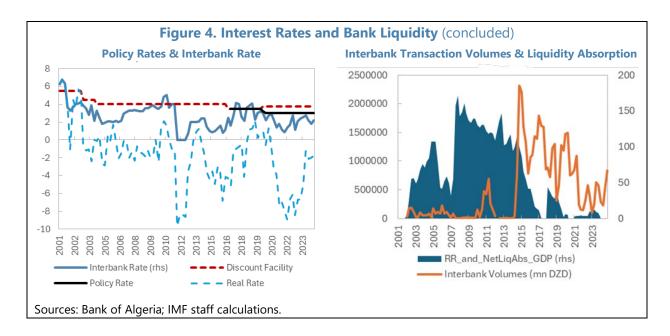
7. As an intermediate objective, the BA de facto targets M2 growth by adjusting the reserve requirement ratio and actively managing bank liquidity with open market operations.

Although the monetary policy framework in Algeria has not established an explicit quantitative target for money supply growth, the structural liquidity of the banking system is a key driver of monetary policy implementation. To achieve its implicit objective of 8-10 percent M2 growth and balanced liquidity supply, the BA has predominantly relied on a combination of open market operations and adjustments of the reserve requirement ratio along with foreign exchange interventions. Despite the introduction of the policy rate ("taux directeur") in 2017 and continuous publication of the discount rate ("taux de reescompte") since 2002, policy interest rates in Algeria play a little role and have been left unchanged for most of the time (Figure 4 panel 1).



⁴ The "taux directeur" is the target interest rate of the main, seven-day refinancing facility, continuously published on the BA homepage.

⁵ The BA operates a managed floating exchange rate regime and sets the external value of the currency as main supplier in the interbank FX market. The BA targets a medium-term equilibrium REER based on an empirical model, while day-to-day transactions occur within a narrow buy/sell band (currently set at DZD 0.015 per USD).



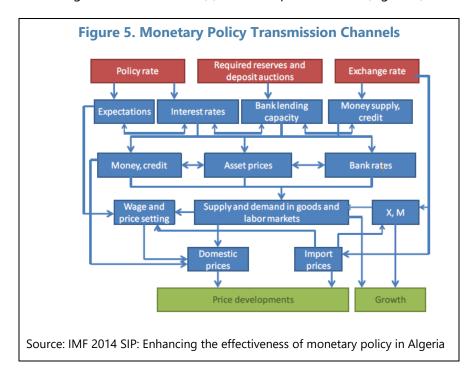
- **8.** While price stability is the ultimate objective of monetary policy in Algeria, the new Monetary and Banking Law (MBL), states several objectives for the BA. The 2023 MBL states four main objectives of the BA: (i) ensure price stability, (ii) create and maintain the most favorable conditions for sustained economic development, (iii) ensure monetary and financial stability to safeguard the safety and soundness of the banking system and finally, and (iv) support financial inclusion. The MBL has also reorganized the institutional framework of the BA and introduced new monetary policy instruments, including the formalization of an emergency liquidity assistance framework (ELA) to support banks that are solvent but in liquidity stress, and the issuance of central bank bills as a liquidity-absorbing instrument. Both of which are work in progress. Once implemented, they support macro-financial stability, improve the interbank market and manage the structural asymmetry of the system. These reforms can therefore enhance the BA's capacity to implement more effective monetary policies, potentially paving the way for an interest rate-based framework in the future.
- **9. The MBL allows monetary financing with limited guardrails.** According to MBL, the BA is allowed to provide advances to the treasury for up to 240 days within one calendar year and within the limit of 10 percent of state revenues in the previous financial year. In "exceptional and unpredictable crisis," there is no limitations or safeguards to the provision of advances to the treasury.

⁶ Article 35 of « Loi n° 23-09 du 3 Dhou El Hidja 1444 correspondant au 21 juin 2023 portant loi monétaire et bancaire ».

⁷ Articles 43-47 of the new Monetary and Banking Law.

Monetary Policy Transmission Channels

10. There are five monetary policy transmission channels typically identified in the literature.⁸ These are (i) the expectations channel, (ii) the interest rate channel, (iii) the credit channel, (iv) the exchange rate channel, and (v) the asset price channel (Figure 5).



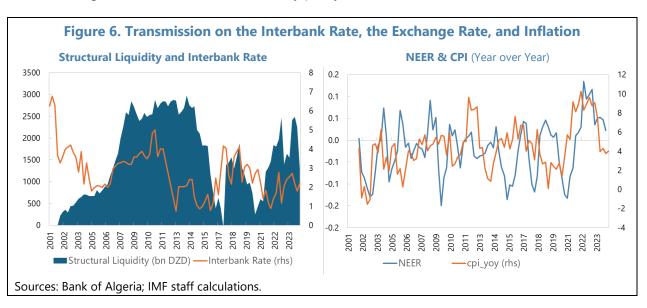
- The interest rate channel. Changes in the BA policy rates ("taux directeur", discount rate, standing facilities rates) should affect the money market interest rates (T-bills and interbank rate) and therefore the funding cost of banks. This should be reflected in retail lending and deposit rates, impacting aggregate demand and prices. However, T-bills are not marketed, and the policy interest rates are stagnant in Algeria for over seven years, which makes them ineffective as monetary policy transmission channel. The interbank interest rates tend to be the most reactive and representative of the monetary policy stance (Figure 4 panel 1 and 2). However, the interbank market rates do not consistently follow the policy rates. Long periods of excess liquidity and BA absorption facilities at very low rates have suppressed the market and led to interbank rates that are structurally below the policy rates and negative in real terms (Figure 4 panel 3). A deepening of the interbank market and BA's liquidity operations within a narrow policy rate corridor would support the interbank market relevance.
- **The credit channel.** This channel captures the effects of changes in money supply through reserve requirements and BA's liquidity management (volume of liquidity absorption or injection). This channel should influence banks' reserves and hence their lending capacity and

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⁸ Reference literature includes Bernanke and Gertler (1995), Mishkin (1995), Mishra and others (2012), Mishra and Montiel (2013). Mishkin (1995): Symposium on the monetary policy transmission mechanism.

credit supply to the economy and the government. As the BA is focused on money supply growth and actively manages the bank liquidity, this channel is the most promising for effective monetary policy transmission in Algeria. Occasionally decreases in structural liquidity are associated with increases in interbank market rates and vice versa, suggesting that the BA's liquidity management might have the intended effect on money market rates. However, a significant share of Algeria's loans by public banks profit from subsidized rates and therefore reduce the effectiveness of the credit transmission (Figure 6 panel 1).

- **The exchange rate channel.** This reflects the transmission of changes in the exchange rate to net foreign assets (NFA) and domestic prices. As the money supply is largely dominated by NFA, monetary policy might be effectively transmitted through the exchange rate. The positive pass-through to inflation has the potential to impact aggregate demand, but due to tight price controls, the channel is potentially limited in Algeria (Figure 6 panel 2).
- The asset price channel. Interest rates affect bond prices, real and financial assets through the changes in the discounting rate leading to valuation changes, and the cost of mortgages. However, this effect is severely limited in Algeria as there are no notable capital markets or secondary markets for fixed income securities.
- **The expectation channel.** Changes in monetary policy actions also affect the expectations of economic agents about future economic conditions, which in turn alter their spending and investment decisions. This effect is difficult to measure in Algeria due to a lack of survey data and no regular communication of monetary policy decisions from the BA.



B. Empirical Analysis of the Monetary Policy Transmission in Algeria

11. We first investigate the channels of monetary policy transmission in Algeria using bivariate and trivariate VARs. We build on the approach in the 2014 SIP, ⁹ using bivariate VARs to measure the effect of the three policy instruments: (i) liquidity management tools, (ii) policy interest rates, and the (iii) exchange rate on the two intermediate transmission channels of market interest rates and credit creation and subsequently the final targets of inflation and real non-hydrocarbon GDP growth. Additionally, we apply a trivariate VAR between the exchange rate, net foreign assets and inflation. To identify significant relationships between the variables, we test for Granger causality using VARs with four lags. Our sample is quarterly data over Q2 2002 to Q4 2024. We test the relationship between the following policy, intermediate, and final target variables: ¹⁰

Policy Variables:

- (i) Liquidity management tools: required reserves (log-difference: ld_rreserv), net liquidity injections: injections minus absorptions (percentage change: dl_netliquid), net liquidity management: the sum of required reserves and net liquidity absorptions (percentage change: pc_RR_and_NetLiqAbs).
- (ii) Interest rates: discount rate (change in: d_discrate), effective open market interest rate¹¹ (change in: d_OMRcombo).
- (iii) Exchange rate: nominal effective exchange rate (log-difference: ld_NEER).

Intermediate Transmission Channel:

- Market interest rates: change in the 3-month T-bill (d_tbill3), 6-month T-bill (d_tbill6), 3-year government bond (d_bond3y), 10-year government bond (d_bond10y), overnight interbank rate (d_IBMrate24h) and the medium-term interbank rate (d_IBMLT).
- *Credit creation*: credit to the economy (log-difference: ld_credec), credit to the private sector (log-difference: ld_credpriv) and credit to the central government (log-difference: ld_credCGALL).

Final Targets:

- Inflation: year-over-year CPI (change in: Id_cpi_yoy).
- Change in real non-hydrocarbon GDP (log-difference: ld_PIBreeelHH).

⁹ IMF 2014 SIP: Enhancing the Effectiveness of Monetary Policy in Algeria.

¹⁰ All variables are stationary; amounts are in log-differences or percentage changes and interest rates are first-differenced

¹¹ The effective open market interest rate is the seven-day auction rate at which the BA absorbs or injects liquidity.

12. We complete the analysis with a recursive structural VAR with exogenous variables.

We follow the standard recursive scheme, using Cholesky ordering with two lags and these variables in order: real non-hydrocarbon GDP growth, inflation, the nominal effective exchange rate, effective open market rate, net liquidity management. This embeds the Taylor-rule type monetary policy reaction function, and it considers the exchange rate to be used as a policy tool rather than a market-based price. The choice of the effective open market rate as the preferred policy interest rate and the net liquidity management as the preferred liquidity management tool, is based on the results from the bivariate VAR and follows the approach of the 2014 SIP. The exogenous variables in the model are the change in Algerian government expenditure to GDP, change in the brent oil price, change in the fed funds rate, change in the VIX¹² and change in log-difference of EU GDP. Controlling for government expenditure and the oil price, reflects their importance in driving Algerian liquidity. In line with the literature, the VIX controls for global uncertainty, the fed funds rate for the us interest rates and the EU growth controls for external demand (WB 2024). Chow tests around the oil price shock (Taper Tantrum 2015) and the COVID-19 pandemic don't indicate structural changes to our variables.

Bivariate Analysis Results

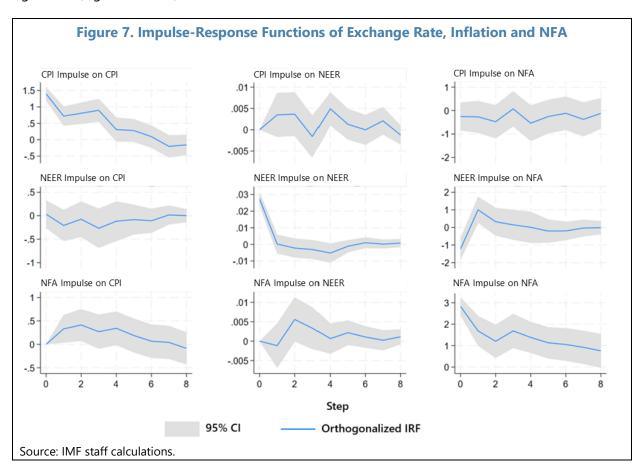
Intermediate Transmission Channels

- 13. Estimations find that the BA's liquidity management tools have a significant impact on credit to the government but no significant effect on credit to the economy and the market interest rates. All liquidity management tools, the main instrument of BA's monetary policy, i.e., changing the reserve requirements or adjusting liquidity through open market operations have a significant effect on credit to the government (appendix table 3 and 4 and figure 1). The effect is relatively strong with a standard deviation increase in reserve requirements or liquidity absorptions, to reduce credit to the government between 2 and 4 percent. This highlights that liquidity management is the main policy instrument that the BA is applying. However, we couldn't measure a passthrough to credit to the economy and the private sector, and, more broadly, to market interest rates, highlights the dominance of the central government in the Algerian economy.
- **14.** We find an effect of policy interest rates on government bonds but no measurable impact on credit to the economy. We find evidence of a significant but small effect of the discount rate on the 10-year government bond (appendix table 1 and 2). However the effect is small, a standard deviation positive shock to the discount rate increases the 10-year bond rate by 0.06 percent. The most effective policy rate turns out to be the effective open market rate which has significant, albeit small positive effects on the 3-year and the 10-year bond. A standard deviation increase in the effective open market rate, increases the 3-year rate by 0.1 per cent and the 10-year rate by 0.05 percent after 4 quarters. This also highlights that the BA can steer market interest rates by executing open market operations with interest rates close to the targeted policy rate. We could, however, not find a measurable effect on the credit creation in the economy.

¹² Volatility of the US S&P 500 equity index

Final Targets

- **15.** Our estimations find no significant relationship between the monetary policy instruments and inflation and real non-hydrocarbon growth. Our bivariate VAR analysis couldn't detect significant relationships between the BA's monetary policy instruments and the final targets of inflation and real non-hydrocarbon growth (Appendix Table 5). However, the investigated relationships are in the right direction albeit not significant. Furthermore, to establish true relationships among the relevant variables, we need to control for external shocks and interdependencies, with a multivariate system of structural VAR and exogenous variables as applied in our multi-variate analysis below.
- 16. We can find a significant effect of a shock to the nominal effective exchange rate on the net foreign assets in the economy. An appreciation of the exchange rate would therefore reduce NFA and liquidity in the system. A reduction of NFA can lead to lower inflation. While an appreciation of the exchange rate is associated with lower inflation, the effect is not s statistically significant (Figure 7 below).



Multivariate Analysis Results

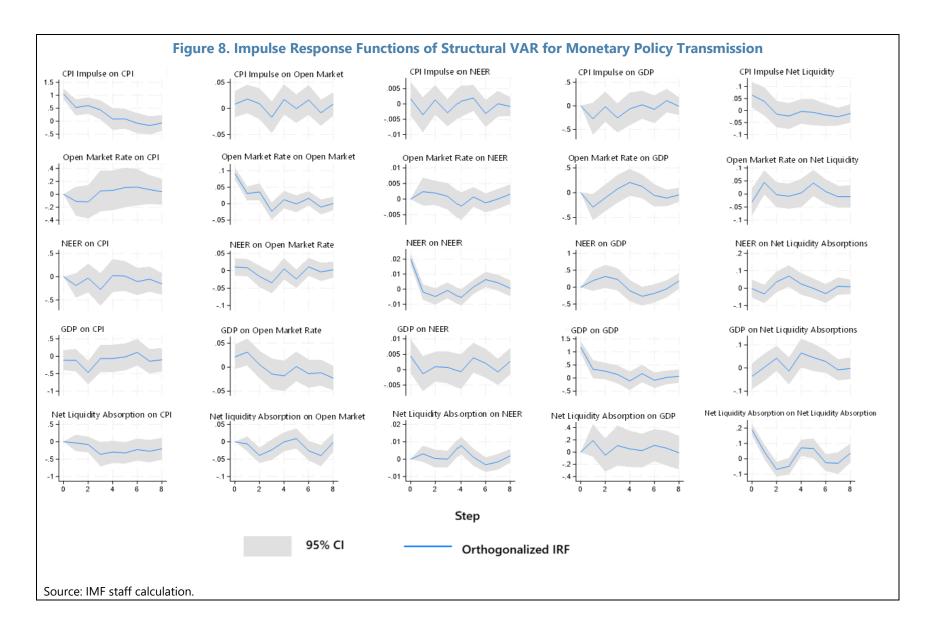
- 17. Estimations find that the BA's liquidity management has the intended effect on inflation and the exchange rate while we cannot find a measurable effect on real growth; and the effects of open market interest rates are insignificant. Our empirical analysis finds that a standard deviation in net liquidity absorption (1.2 percent of GDP), leads to a reduction in inflation of 0.4 percent over the next 4 quarters (Figure 8). Net liquidity management also has a marginal but significant effect on the exchange rate. Most other relationships are in line with theoretical predictions but statistically insignificant. An increase in the effective open market interest rate decreases inflation and real GDP. An increase in liquidity absorptions has the mentioned significant effect on inflation and the exchange rate but no effect on the real GDP. An appreciation of the exchange rate tends to reduce inflation and real GDP.
- **18. Overall, our findings suggest limited monetary policy transmission in Algeria.** Results of the empirical investigation suggest that the interest rate channel of monetary policy transmission is weak, with no significant impact on inflation and growth. However, we find stronger evidence from liquidity operations, which affect inflation and the exchange rate, but not real growth. These results are robust to alternative specifications.¹⁴

C. Structural Impediments to Monetary Policy Transmission in Algeria

19. The literature identifies structural impediments to monetary policy effectiveness in emerging and developing economies. Limited financial sector depth, underdeveloped credit and capital markets, an uncompetitive financial sector, inflexible exchange rate regimes, public sector dominance and excess liquidity conditions, all contribute to weak monetary policy transmission in a broad variety of countries (Mishra and Montiel (2012). These may explain the finding of a limited monetary policy transmission in Algeria.

¹³ The literature in emerging market often finds a positive relationship between interest rates and inflation, the so-called price puzzle (WB 2014). When we use the standard specification with the discount rate, we also find the price puzzle, but by using the effective rates from open market operations, we get more consistent results.

¹⁴ Alternative orderings do not change the results substantially. We also reproduced the 2014 SIP specification and a standard specification from the literature (WB 2024) not finding substantial differences.



20. Some specific characteristics and impediments to the effectiveness of monetary policy in Algeria may include the following:

- Excess liquidity in the banking system reduces the effectiveness of interest rate adjustments. Due to high hydrocarbon export revenues, the Algerian banking system experienced long periods of structural excess liquidity which reduced the effectiveness of monetary policy transmission (Saxegaard, 2006) and inhibited the development of effective interbank markets. Also, banks operate in an environment characterized by structural excess liquidity, primarily due to past fiscal injections, public sector financing through the central bank, and limited demand for credit. Since commercial banks rarely need to borrow in the interbank market or from the central bank, the role of the policy rate and its adjustments is weakened.
- Underdeveloped financial markets limit the transmission of policy rate changes to the
 broader economy. The Algerian financial system is mostly reliant on bank financing with a
 limited role for capital markets. In combination with low bank penetration, access to credit for
 private sector and households is limited. Therefore, market interest rates, credit availability and
 asset prices have a limited effect on inflation and real activity. The absence of instruments such
 as repos, Treasury bills, and commercial paper restricts the Bank of Algeria's ability to conduct
 effective open market operations and manage short-term liquidity.
- The role of the interest rate channel is limited in Algeria. The interest rate channel—the most direct mechanism for monetary transmission—is underutilized in Algeria. It has not had enough time to operate and serve as a credible reference rate as it has only been established in 2017, with one rate adjustment since. Additionally, banks do not actively adjust their lending and deposit rates in response to policy changes. The discount rate has been published since 2001 but with very few actual transactions taking place at that rate. The corridor between the deposit rate for excess reserves (currently at 0.5 percent) and the marginal lending rate (currently at 5 percent) is too wide to establish an interest rate channel that guides other market interest rates. Open market operations are often executed below the policy rates which resulted in an interbank rate consistently lower than the policy rate and real interest rates to be negative (Figure 4 panel 3).
- Fiscal dominance can undermine the central banks independence and weaken the monetary policy transmission. Unconventional deficit financing arrangements—such as the 2017-18 central bank financing and the 2021 special financing program—can lead to constraints on the central banks' ability to manage inflation and interest rates effectively, thereby undermining the central banks independence and monetary policy transmission.

D. Policy Implications

21. A comprehensive reform agenda is needed to address the above-mentioned impediments and improve the effectiveness of monetary policy. The 2023 LMB provides a good foundation, and the authorities are taking significant steps toward modernizing its monetary policy framework and enhancing the role of interest rates. Continued reforms are needed across financial

markets, liquidity operations, and central bank tools, central bank independence and transparency, as well as capacity-building efforts.

- **22.** Managing excess liquidity and proactive absorptions at the policy interest rate help strengthen the interest rate channel of monetary policy. The BA should enhance its liquidity forecasting capabilities and regularly absorb excess liquidity in the banking system. Due to the asymmetric distribution of liquidity, bilateral absorptions are a useful tool. However, open market operations and bilateral liquidity absorption should take place at the policy rate as to direct lending conditions and market interest rates accordingly. Reliance on central bank financing should be curtailed, as it directly injects liquidity into the system and undermines monetary control.
- 23. Enhancing the role of market-based monetary instruments including a narrow and symmetric standing facility corridor around the policy rate will improve interest rate transmission. The interest rates of the two standing facilities, deposit rate (currently at 0.5 percent) and the marginal lending rate (currently 5 percent) should form a narrower +/- 2 percent symmetrical corridor around the policy rate (currently at 3 percent). The higher remuneration of excess reserves through the deposit facility would be transmitted to the economy. The implementation of the newly created ELA framework of the 2023 MBL will allow the BA to address any residual idiosyncratic situation of liquidity stress. Creating a clear interest rate corridor would allow market rates to converge around the central policy rate and anchor short-term rates more effectively and make the monetary policy stance clearer to financial markets.
- 24. Deeper and more diversified financial markets help transmit policy interest rates. The BA should continue to deepen the interbank market to help with the distribution of liquidity within the banking system. Also, the lack of a robust secondary market for government securities limits the central bank's ability to guide market interest rates. Establishing a benchmark yield curve through regular and transparent issuance of government bonds would provide reference rates across maturities, facilitating transmission of policy rate changes. Private sector and consumer credit should be encouraged accompanied by well-defined prudential rules while the use of cash in the economy should be curbed. Further progress on digital payment infrastructure would be welcome.
- **25. Further strengthening BA's independence, governance, and price stability mandate is essential including through the implementation of the MBL.** The 2023 MBL grants the BA greater autonomy, a focused mandate on price stability, and improved governance structures. Establishing an independent monetary policy committee with transparent decision-making and published meeting minutes will further enhance policy accountability. Regular communication of monetary policy decisions builds credibility and helps to form expectations in the economy. The BA's ongoing efforts to expand the use of forecasting models and building with the intention to start regular communication on its monetary policy decisions is a step in the right direction.

Appendix I. Econometric Results

Table 1. Algeria: Bilateral Granger Causalities of Interest Rates on Credit Variables

Sample: 2003q1 thru 2024q4

Lags 4

| Null Hypothesis: | Obs | C | hi-sq | Prob |
|---|-----|----|-------|------|
| Credit to the economy does not Granger Cause Discount rate | | 86 | 13.43 | 0.00 |
| Discount rate does not Granger Cause Credit to the economy | | 86 | 3.34 | 0.50 |
| Credit to private sector does not Granger Cause Discount rate | | 86 | 14.64 | 0.00 |
| Discount rate does not Granger Cause Credit to private sector | | 86 | 39.16 | 0.00 |
| Credit to the government does not Granger Cause Discount rate | | 86 | 0.87 | 0.92 |
| Discount rate does not Granger Cause Credit to the government | | 86 | 1.39 | 0.84 |
| Credit to the economy does not Granger Cause Open market absorption rate | | 86 | 4.63 | 0.32 |
| Open market absorption rate does not Granger Cause Credit to the economy | | 86 | 1.22 | 0.88 |
| Credit to private sector does not Granger Cause Open market absorption rate | | 86 | 21.31 | 0.13 |
| Open market absorption rate does not Granger Cause Credit to private sector | | 86 | 6.98 | 0.00 |
| Credit to the government does not Granger Cause Open market absorption rate | | 86 | 5.39 | 0.24 |
| Open market absorption rate does not Granger Cause Credit to the government | | 86 | 1.25 | 0.86 |
| Credit to the economy does not Granger Cause Open market rate | | 86 | 3.53 | 0.47 |
| Open market rate does not Granger Cause Credit to the economy | | 86 | 1.31 | 0.8 |
| Credit to private sector does not Granger Cause Open market rate | | 86 | 17.33 | 0.00 |
| Open market rate does not Granger Cause Credit to private sector | | 86 | 6.59 | 0.15 |
| Credit to the government does not Granger Cause Open market rate | | 86 | 8.35 | 0.07 |
| Open market rate does not Granger CauseCredit to the government | | 86 | 0.49 | 0.97 |

Source: IMF Calculations.

Note: Open market absorption rate: (change) in open market absorption rate average of short-lang-term Open market rate: (change) in open market absorption and injections rate.

Credit to the economy: (log difference of) credit to the economy; Credit to private sector: (log difference of) credit to the private sector; Credit to the government: (log difference of) credit to the government.

Table 2. Algeria: Bilateral Granger Causalities of Policy Rates and Market Interest Rates

Sample: 2002q2 thru 2024q4

Lags 4

| Null Hypothesis: | Obs | (| Chi-sq | Prob |
|---|-----|----|---------|-------|
| | | | | |
| 3 months T-bill does not Granger Cause Discount rate | | 91 | 11.57 | 0.021 |
| Discount rate does not Granger Cause 3 months T-bill | | 91 | 1.83 | 0.768 |
| 3 year bond does not Granger Cause Discount rate | | 70 | 0.40 | 0.983 |
| Discount rate does not Granger Cause 3 year bond | | 70 | 7.77 | 0.100 |
| 10 year bond does not Granger Cause Discount rate | | 88 | 6.78 | 0.148 |
| Discount rate does not Granger Cause 10 year bond | | 88 | 18.96 | 0.001 |
| Overnight Interbank Rate does not Granger Cause Discount rate | | 53 | 2.57 | 0.633 |
| Discount rate does not Granger Cause Overnight Interbank Rate | | 53 | 5.16 | 0.272 |
| Long-term Interbank Rate does not Granger Cause Discount rate | | 82 | 1.06 | 0.900 |
| Discount rate does not Granger Cause Long-term Interbank Rate | | 82 | 11.03 | 0.026 |
| 3 months T-bill does not Granger Cause Open market absorption rate | | 55 | 5.85 | 0.211 |
| Open market absorption rate does not Granger Cause 3 months T-bill | | 55 | 6.07 | 0.194 |
| 3 year bond does not Granger Cause Open market absorption rate | | 39 | 0.86 | 0.000 |
| Open market absorption rate does not Granger Cause 3 year bond | | 39 | 0.86 | 0.931 |
| 10 year bond does not Granger Cause Open market absorption rate | | 55 | 18.41 | 0.001 |
| Open market absorption rate does not Granger Cause 10 year bond | | 55 | 13.41 | 0.009 |
| Overnight Interbank Rate does not Granger Cause Open market absorption rate | | 35 | 2.51 | 0.642 |
| Open market absorption rate does not Granger Cause Overnight Interbank Rate | | 35 | 1.58 | 0.812 |
| Long-term Interbank Rate does not Granger Cause Open market absorption rate | | 42 | 1.09 | 0.896 |
| Open market absorption rate does not Granger Cause Long-term Interbank Rate | | 42 | 2.00 | 0.735 |
| 3 months T-bill does not Granger Cause Open market rate | | 53 | 9.1995 | 0.056 |
| Open market rate does not Granger Cause 3 months T-bill | | 53 | 3.654 | 0.455 |
| 3 year bond does not Granger Cause Open market rate | | 38 | 0.81696 | 0.936 |
| Open market rate does not Granger Cause 3 year bond | | 38 | 34.251 | 0.000 |
| 10 year bond does not Granger Cause Open market rate | | 53 | 17.322 | 0.002 |
| Open market rate does not Granger Cause 10 year bond | | 53 | 29.505 | 0.000 |
| Overnight Interbank Rate does not Granger Cause Open market rate | | 24 | 2.5389 | 0.638 |
| Open market rate does not Granger Cause Overnight Interbank Rate | | 24 | 0.243 | 0.993 |
| Long-term Interbank Rate does not Granger Cause Open market rate | | 44 | 4.2317 | 0.376 |
| Open market rate does not Granger Cause Long-term Interbank Rate | | 44 | 4.49 | 0.344 |

Source: IMF Calculations.

Note: Open market absorption rate: (change) in open market absorption rate average of short-lang-term Open market rate: (change) in open market absorption and injections rate.

Credit to the economy: (log difference of) credit to the economy; Credit to private sector: (log difference of) credit to the private sector; Credit to the government: (log difference of) credit to the government.

Table 3. Algeria: Bilateral Granger Causalities of Liquidity Management on Interest Rates

Sample: 2003q2 thru 2024q4

Lags 4

| Null Hypothesis: | Obs | Cl | hi-sq | Prob |
|---|-----|----|-------|-------|
| 3 months T-bill does not Granger Cause Required reserves | | 87 | 0.61 | 0.96 |
| Required reserves does not Granger Cause 3 months T-bill | | 87 | 0.63 | 0.961 |
| 6 months T-bill does not Granger Cause Required reserves | | 87 | 0.69 | 0.953 |
| Required reserves does not Granger Cause 6 months T-bill | | 87 | 0.34 | 0.987 |
| 3 year bond does not Granger Cause Required reserves | | 87 | 2.65 | 0.618 |
| Required reserves does not Granger Cause 3 year bond | | 87 | 2.71 | 0.607 |
| 10 year bond does not Granger Cause Required reserves | | 87 | 3.71 | 0.447 |
| Required reserves does not Granger Cause 10 year bond | | 87 | 2.08 | 0.722 |
| Overnight Interbank Rate does not Granger Cause Required reserves | | 87 | 11.06 | 0.026 |
| Required reserves does not Granger Cause Overnight Interbank Rate | | 87 | 4.67 | 0.323 |
| Long-term Interbank Rate does not Granger Cause Required reserves | | 87 | 5.35 | 0.028 |
| Required reserves does not Granger Cause Long-term Interbank Rate | | 87 | 10.86 | 0.253 |
| 3 months T-bill does not Granger Cause Required Reserves & net liquidity absorptions | | 87 | 6.52 | 0.163 |
| Required Reserves & net liquidity absorptions does not Granger Cause 3 months T-bill | | 87 | 3.80 | 0.434 |
| 6 months T-bill does not Granger Cause Required Reserves & net liquidity absorptions | | 87 | 1.31 | 0.86 |
| Required Reserves & net liquidity absorptions does not Granger Cause 6 months T-bill | | 87 | 6.33 | 0.176 |
| 3 year bond does not Granger Cause Required Reserves & net liquidity absorptions | | 87 | 1.29 | 0.864 |
| Required Reserves & net liquidity absorptions does not Granger Cause 3 year bond | | 87 | 2.71 | 0.608 |
| 10 year bond does not Granger Cause Required Reserves & net liquidity absorptions | | 87 | 1.29 | 0.862 |
| Required Reserves & net liquidity absorptions does not Granger Cause 10 year bond | | 87 | 5.12 | 0.276 |
| Overnight Interbank Rate does not Granger Cause Required Reserves & net liquidity absorptions | | 87 | 9.92 | 0.042 |
| Required Reserves & net liquidity absorptions does not Granger Cause Overnight Interbank Rate | | 87 | 14.01 | 0.007 |
| Long-term Interbank Rate does not Granger Cause Required Reserves & net liquidity absorptions | | 87 | 15.96 | 0.003 |
| Required Reserves & net liquidity absorptions does not Granger Cause Long-term Interbank Rate | | 87 | 8.66 | 0.07 |

Source: IMF calculations

Note: Overnight Interbank Rate (difference) in overnight interbank market rate.

Long-term Interbank Rate (difference) in interbank market rate medium-term.

Required Reserves and net liquidity absorptions: (percent change) in required reserves and net liquidity absorptions.

Table 4. Algeria: Bilateral Granger Causalities of Liquidity Management on Credit Creation

Sample: 2003q2 thru 2024q4

Lags 4

| Null Hypothesis: | Obs | Chi-sq | Prob |
|---|-----|---------|---------|
| Credit to the economy does not Granger Cause Required reserves | | 87 0.8 | 4 0.933 |
| Required reserves does not Granger Cause Credit to the economy | | 87 12.7 | 9 0.012 |
| Credit to private sector does not Granger Cause Required reserves | | 87 1.1 | 1 0.481 |
| Required reserves does not Granger Cause Credit to private sector | | 87 3.4 | 8 0.893 |
| Credit to the government does not Granger Cause Required reserves | | 87 4.3 | 8 0.357 |
| Required reserves does not Granger Cause Credit to the government | | 87 13.4 | 7 0.009 |
| Credit to the economy does not Granger Cause Net liquidity injections | | 87 0.9 | 3 0.627 |
| Net liquidity injections does not Granger Cause Credit to the economy | | 87 3.0 | 9 0.213 |
| Credit to private sector does not Granger Cause Net liquidity injections | | 87 0.3 | 1 0.856 |
| Net liquidity injections does not Granger Cause Credit to private sector | | 87 0.0 | 6 0.969 |
| Credit to the government does not Granger Cause Net liquidity injections | | 87 2.1 | 3 0.272 |
| Net liquidity injections does not Granger Cause Credit to the government | | 87 23.9 | 2 0.004 |
| Credit to the economy does not Granger Cause Required Reserves & net liquidity absorptions | | 87 1.3 | 7 0.85 |
| Required Reserves & net liquidity absorptions does not Granger Cause Credit to the economy | | 87 7.5 | 4 0.11 |
| Credit to private sector does not Granger Cause Required Reserves & net liquidity absorptions | | 87 0.9 | 9 0.912 |
| Required Reserves & net liquidity absorptions does not Granger Cause Credit to private sector | | 87 1.8 | 3 0.767 |
| Credit to the government does not Granger Cause Required Reserves & net liquidity absorptions | | 87 3.0 | 1 0.557 |
| Required Reserves & net liquidity absorptions does not Granger CauseCredit to the government | | 87 22.5 | 7 0.000 |

Source: IMF calculations

Note: Credit to the economy: (log difference of) credit to the economy; Credit to private sector: (log difference of) credit to the private sector; Credit to the government: (log difference of) credit to the government.

Required reserves: (log difference of) required reserves volume; Required Reserves and net liquidity absorptions: (log difference of) deposit auction volume. Net liquidity injections: (percent change) of liquidity injections.

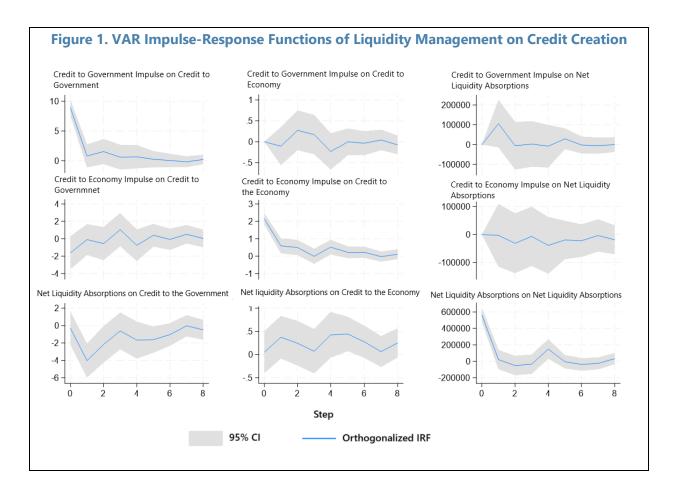


Table 5. Algeria: Bilateral Granger Causalities of Policy Variables on Final Targets, Growth and Inflation

Sample: 2002q2 thru 2024q4

Lags 4

| Null Hypothesis: | Obs | Chi-sq | Prob |
|---|-----|--------|------|
| Inflation does not Granger Cause Discount rate | 87 | 8.98 | 0.1 |
| Discount rate does not Granger Cause Inflation | 87 | | |
| . . | | | |
| Inflation does not Granger Cause Open market rate | 53 | 4.22 | 0.48 |
| Open market rate does not Granger Cause Inflation | 53 | 3.49 | 0.37 |
| Inflation does not Granger Cause Required reserves | 86 | 6.05 | 0.19 |
| Required reserves does not Granger Cause Inflation | 86 | 5.55 | 0.23 |
| Inflation does not Granger Cause Net liquidity injections | 85 | 0.64 | 0.95 |
| Net liquidity injections does not Granger Cause Inflation | 85 | 5.04 | 0.28 |
| Inflation does not Granger Cause Required Reserves & net liquidity absorptions | 86 | 0.47 | 0.97 |
| Required Reserves & net liquidity absorptions does not Granger Cause Inflation | 86 | 4.7649 | 0.31 |
| Nonhydro GDP does not Granger Cause Discount rate | 84 | 1.42 | 0.8 |
| Discount rate does not Granger Cause Nonhydro GDP | 84 | 2.63 | 0.62 |
| Nonhydro GDP does not Granger Cause Open market rate | 53 | 0.79 | 0.81 |
| Open market rate does not Granger Cause Nonhydro GDP | 53 | 1.58 | 0.9 |
| Nonhydro GDP does not Granger Cause Required reserves | 83 | 14.50 | 0.00 |
| Required reserves does not Granger Cause Nonhydro GDP | 83 | 4.37 | 0.35 |
| Nonhydro GDP does not Granger Cause Net liquidity injections | 82 | 2.26 | 0.68 |
| Net liquidity injections does not Granger Cause Nonhydro GDP | 82 | 8.59 | 0.07 |
| Nonhydro GDP does not Granger Cause Required Reserves & net liquidity absorptions | 83 | 2.22 | 0.00 |
| Required Reserves & net liquidity absorptions does not Granger Cause Nonhydro GDP | 83 | 7.85 | 0.09 |
| Inflation does not Granger Cause NEER | 87 | 11.25 | 0.02 |
| NEER does not Granger Cause Inflation | 87 | 3.89 | 0.42 |
| Inflation does not Granger Cause Nonhydro GDP | 84 | 3.08 | 0.54 |
| Nonhydro GDP does not Granger Cause Inflation | 84 | 4.16 | 0.38 |
| Inflation does not Granger Cause NEER | 87 | 11.25 | 0.02 |
| NEER does not Granger Cause Inflation | 87 | 3.89 | 0.42 |
| NEER does not Granger Cause Nonhydro GDP | 84 | 2.99 | 0.5 |
| Nonhydro GDP does not Granger Cause NEER | 84 | 0.07 | 0.99 |

Source: IMF calculations

Note: Non-hydro GDP: (log-difference) in Real non-hydrocarbon GDP

Credit to the economy: (log difference of) credit to the economy; Credit to private sector: (log difference of) credit to the private sector; Credit to the government: (log difference of) credit to the government.

Required reserves: (log difference of) required reserves volume; Required Reserves and net liquidity absorptions: (log difference of) deposit auction volume. Net liquidity injections: (percent change) of liquidity injections.

Table 6. Algeria: Bilateral Granger Causalities of Exchange Rate on NFA and Inflation

Sample: 2002q2 thru 2024q4

Lags 4

| Null Hypothesis: | Obs | Ch | ni-sq | Prob |
|---------------------------------------|-----|----|-------|-------|
| NFA does not Granger Cause NEER | | 87 | 23.83 | 0.499 |
| NEER does not Granger Cause NFA | | 87 | 3.36 | 0.000 |
| Inflation does not Granger Cause NEER | | 87 | 11.25 | 0.024 |
| NEER does not Granger Cause Inflation | | 87 | 3.89 | 0.421 |
| NFA does not Granger Cause Inflation | | 87 | 7.03 | 0.134 |
| Inflation does not Granger Cause NFA | | 87 | 3.29 | 0.511 |
| | | | | |

Source: IMF calculations

Note: NFA: (log difference) in net foreign assets; NEER: (log difference) in nominal effective exchange rate; Inflation the annual headline inflation rate.

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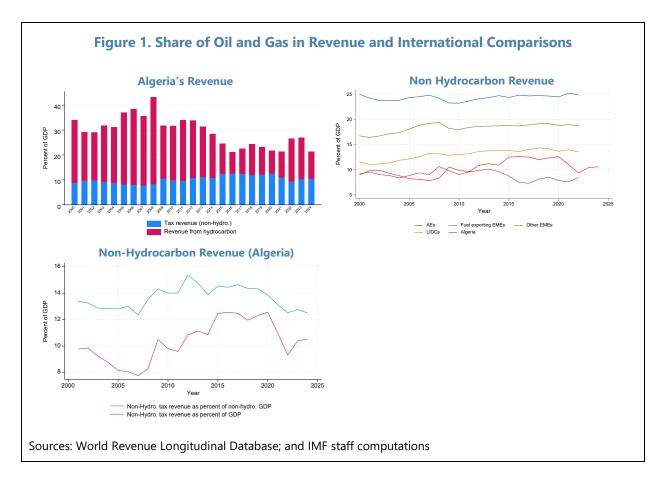
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STRENGTHENING THE REVENUE MOBILIZATION STRATEGY

This paper analyzes Algeria's revenue mobilization challenges and outlines reform options to enhance non-hydrocarbon tax collection. With hydrocarbon revenues dominating public finances and exhibiting high volatility, Algeria's non-hydrocarbon tax revenues remain low and stagnant. Using regression benchmarking, the study identifies a significant non-hydrocarbon tax gap of 2–4 percent of GDP, underscoring substantial untapped potential. Key constraints include weak value-added tax (VAT) and corporate income tax (CIT) performance, a narrow property tax base, and a large informal sector. The paper recommends tax reforms centered on base broadening, simplification of rates and exemptions, further strengthening of the tax administration, and the adoption of a Medium-Term Revenue Strategy (MTRS) to anchor efforts. These reforms would strengthen revenue resilience and support sustainable fiscal consolidation.

A. Introduction

- 1. Since 2020, the hydrocarbon sector has remained the dominant source of government revenue in Algeria (Figure 1, upper-left panel). Oil and gas have generated both tax revenue (corporate income tax) and non-tax revenue (notably royalties and dividends from state-owned enterprises), averaging 67 percent of total revenue over the period. However, a key fiscal challenge, as illustrated in the figure, lies in the high volatility of these revenues, which are directly tied to international commodity prices.
- 2. In contrast, non-hydrocarbon tax revenues have remained stagnant over the past two decades consistently hovering around 10 percent of GDP (Figure 1, upper-left panel). In the recent period, these revenues have yet to rebound from the COVID-19 crisis: in 2019, they stood at 12.3 percent of GDP, compared to just 10.6 percent in 2024. As shown in Figure 1, upper right panel, while this is slightly above the average for other fuel-exporting emerging market economies (EMEs), it remains significantly lower than in non-fuel EMEs. As shown in the lower-left panel, non-hydrocarbon revenues—particularly when expressed as a share of non-hydrocarbon GDP—are significantly more stable than hydrocarbon revenues.



3. Strengthening non-hydrocarbon revenue mobilization is essential. The broader macroeconomic context highlights the urgent need to boost domestic non-hydrocarbon revenues. The non-hydrocarbon primary balance has steadily deteriorated (from -6.9 percent of NHGDP in 2018 to -15.3 percent in 2024) while public spending needs continue to grow. This reinforces the case for consolidating domestic tax revenues—particularly if Algeria is to limit its reliance on external borrowing.

B. Estimating Algeria's Tax Potential and the Scope for Additional Tax Revenues

Algeria's Tax Potential from the Non-Hydrocarbon Sector

4. We estimate Algeria's tax potential using a regression benchmarking approach. The approach builds on Benitez et al (2023) ¹ who provide a similar analysis for countries around the world. The methodology analyzes differences in tax collection between countries and relates them to explanatory factors, including, in the baseline model (Model 1), GDP per capita, GDP shares of agricultural value added and trade, and government effectiveness. ² The tax potential (or the tax

¹ For a detailed exposition of the methodology, see Benitez et al. (2023), Annex 1.

² World Bank Worldwide Governance Indicators dataset.

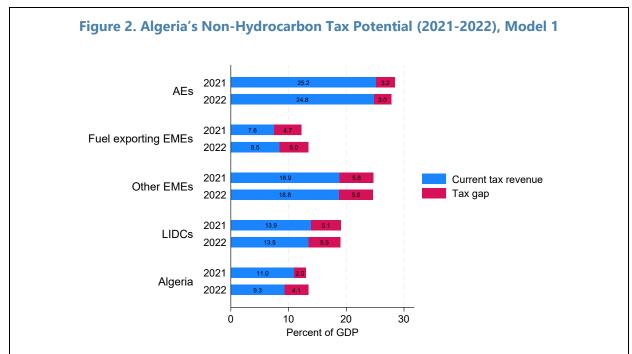
frontier) of individual countries is then established by fitting a regression of tax revenues with the explanatory variables, with the fit designed to capture the highest observed levels of tax revenues for given levels of the explanatory variables. The estimated size of the tax gap is calculated by comparing the estimated tax potential to current tax collections.

- 5. As a robustness check, the model is next extended to include the share of GDP from the extractive sector³ in its explanatory factors (Model 2). Model 2, because it will tend to compare Algeria more with other fuel-exporting EMEs, which have faced similar relatively lower performance in non-hydrocarbon revenue, will tend to suggest a less "ambitious" tax frontier. It can therefore be seen as a lower, minimum tax frontier. On the other hand, Model 1 can be interpreted as suggesting a more ambitious, aspirational goal.
- 6. The analysis focuses on non-hydrocarbon tax revenue. Since revenues from the hydrocarbon sector are highly sensitive to fluctuations in international oil and gas prices, the concept of a structural tax potential is less meaningful for this component. Additionally, as noted, the key policy goal for Algeria is to specifically expand non-hydrocarbon taxation. Following standard practice (Benitez et al. 2023; Verdier et al. 2022), our analysis therefore concentrates on these revenues. Data on revenue are taken from IMF's World Longitudinal Revenue Database for 163 countries over the period 1990–2022.⁴
- **Results from the baseline model (Model 1) suggest that Algeria's non-hydrocarbon estimated tax gap is significant, ranging from 2.0 to 4.1 percent of GDP (Figure 2).** This implies a non-hydrocarbon tax potential of 13.5 percent of GDP for these years, on average (or 15.9 percent of non-hydrocarbon GDP). In this baseline model, Algeria's remaining tax gap is lower than that of other fuel-exporting countries (for example, in 2022, 4.1 percent of GDP vs 5 percent), but this is largely explained by the fact that the current tax revenue in Algeria is higher—in other words that Algeria is closer to its tax frontier. In fact, Algeria's tax effort is typical of other oil-exporting EMEs, which is marked by a strong dependence on hydrocarbon revenues.⁵

³ Total natural resources rents (% of GDP), World Development Indicators.

⁴ Following Benitez et al (2023), Social Security Contributions are excluded from the estimation of tax potential as some countries earmark them to fund pension and other social transfers more strongly than others. This weakens their interpretation as a tax in comparative analysis since a tax is a compulsory payment for which no direct benefit is expected.

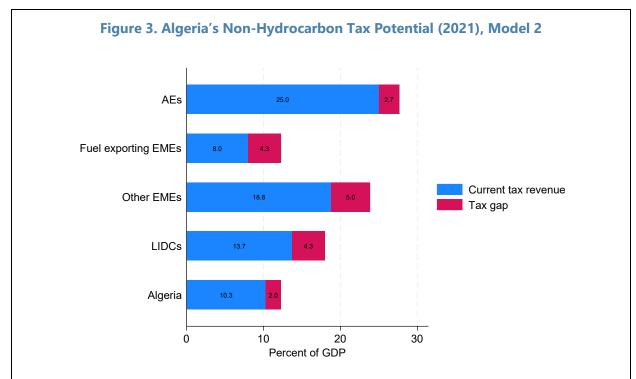
⁵ See Verdier et al. (2022) and Figure 4 below.



Sources: World Revenue Longitudinal Database, World Economic Outlook, World Development Indicators, and IMF staff computations.

Note: Explanatory variables are GDP per capita, GDP share of agricultural value-added trade, and government effectiveness.

8. Under Model 2, the tax gap remains sizable at about 2 percent of GDP, even after we explicitly control for the share of the hydrocarbon economy in GDP. This version of the model allows for the possibility that the size of the fuel-exporting sector affects a country's non-hydrocarbon tax potential. Since oil-exporting EMEs raise significantly less non-hydrocarbon revenues than other EMEs (see Figure 4), the estimated non-hydrocarbon potential would likely be lower if this structural characteristic were taken into consideration. While Algeria's estimated tax gap is indeed slightly lower under this specification, it remains significant—around 2 percent of GDP, or 2.35 percent of non-hydrocarbon GDP (Figure 3). One way to interpret this result is that even if the hydrocarbon sector continues to dominate Algeria's economy, with diversification remaining limited, the estimated potential for non-hydrocarbon tax revenue is still significant—at around 2 percent of GDP. This can therefore be seen as a lower-bound estimate.

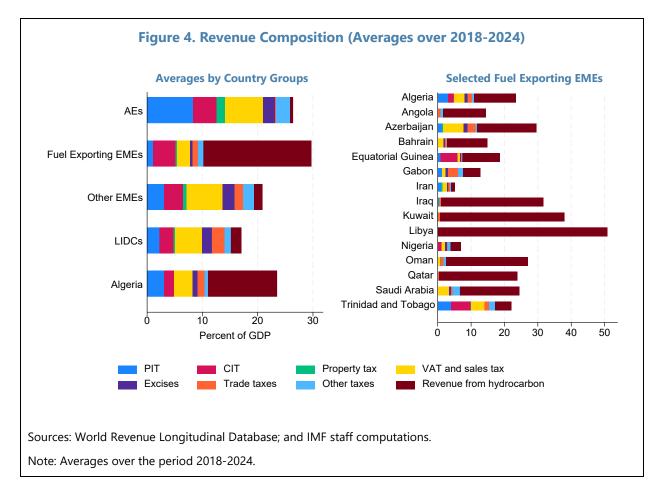


Sources: World Revenue Longitudinal Database, World Economic Outlook, World Development Indicators, and IMF staff computations.

Note: Explanatory variables are GDP per capita, GDP share of agricultural value added, trade, government effectiveness, and share of GDP from the extractive sector.

Where is the Scope for Additional Revenue?

9. Algeria's revenue composition indicates potential for revenue growth in key core domestic taxes. Consistent with the tax gap estimates discussed above, the revenue composition in Figure 4 (left panel) shows that overall tax revenue, as a share of GDP, is below the average for both non-fuel exporting EMEs and even LIDCs. In this respect, Algeria resembles most fuel-exporting EMEs, where, again, extractive revenues dominate total collections (Verdier et al., 2022). Furthermore, individual core taxes such as the VAT and the CIT—typically key non-oil revenue sources—are significantly lower in Algeria compared to all peer country groups, except for fuel-exporting EMEs. Figure 4 (right panel) shows that most oil-exporting countries (Trinidad and Tobago being an exception) face similar challenges in diversifying their revenue base.



- **10.** The VAT and CIT are both performing below their potential in Algeria. VAT revenues averaged just 3.3 percent of GDP over 2018–2024, reflecting the broader challenge of raising non-oil revenues in hydrocarbon-exporting countries. By comparison, VAT revenues in non-fuel exporting EMEs reached 6.5 percent of GDP during the same period. Similarly, the CIT yielded only 1.8 percent of GDP in Algeria, compared to 3.4 percent in non-fuel exporting EMEs—again pointing to significant room for improvement.
- 11. Tax expenditures—which reflect the tax policy gap—are generally significant in Algeria. VAT tax expenditures alone are estimated at about 1.5 percent of GDP in 2023, while those related to CIT at 0.24 percent of GDP. Altogether, tax expenditures on these instruments amounts to approximately 1.7 of GDP, highlighting the substantial size of the policy gap
- 12. The compliance gap has compounded the policy gap, mainly driven by the informal economy. The informal economy—particularly in sectors such as agriculture, commerce, and construction—has contributed significantly to overall tax shortfalls. Recent studies estimate that the undeclared Algeria's economy accounts for approximately 32 percent of total GDP.⁶ In terms of tax

⁶ See Cardarelli et al. (2022) and https://www.worldbank.org/en/research/brief/informal-economy-database.

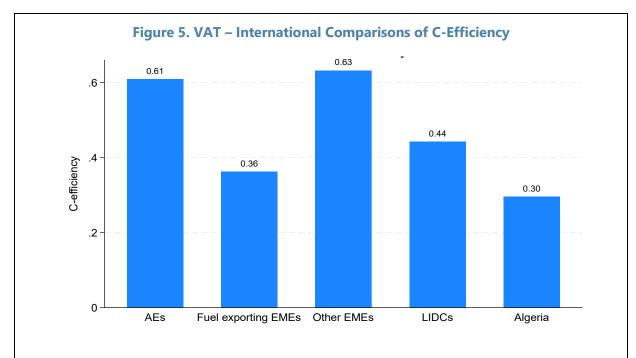
revenue, this substantial compliance gap further exacerbates the policy gap, and is likely to be especially pronounced in CIT collections.

C. Looking Forward: Reform Options

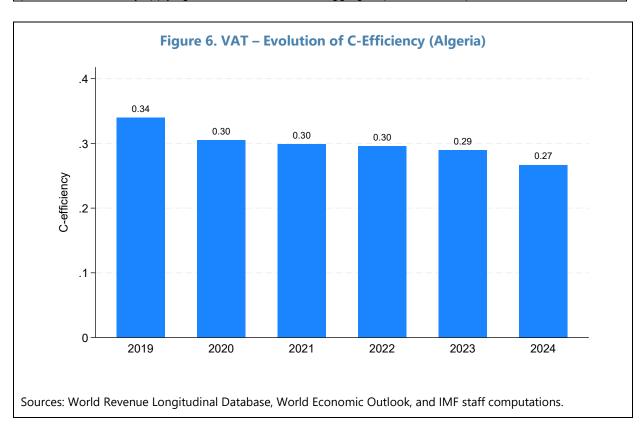
13. Algeria's tax system offers revenue-generating opportunities through base-broadening and simplification. The current system is marked by complexity, multiple rates, and widespread exemptions that erode the tax base and weaken compliance. Streamlining VAT rates and exemption, rationalizing CIT incentives, and updating property valuations and related property tax collections could significantly enhance revenue. Similarly, better use of excise taxes would boost collections. This section reviews opportunities for each major tax.

Indirect Taxation

- **14. VAT performance has been weakened by multiple of exemptions and reduced rates.** A dynamic of accumulating exemptions and zero-rating, combined with the widespread application of the reduced VAT rate (9 percent; standard rate of 19 percent), has undermined the efficiency of the tax. This has resulted in:
- Erosion of the tax base, with declining C-efficiency (the ratio of actual to potential revenue): averaging 30 percent over 2018–2024, compared to 42 percent in fuel-exporting EMEs and 59 percent in other EMEs (Figure 5). In addition, the trend is clearly downward, with C-efficiency falling to just 27 percent in 2024 (Figure 6).
- Administrative complexity, as 70 percent of VAT credit refund requests originate from exemptions that permit input tax deductions (i.e., zero-rating).
- Loss of VAT neutrality, typically one of its key strengths, due to wide variation in effective tax rates across product categories. This also implies reduced ability to indirectly tax the informal sector, normally a major strength of the VAT.
- Increased regressivity, with VAT-related tax expenditures disproportionately benefiting higherincome households.



Sources: World Revenue Longitudinal Database, World Economic Outlook, and IMF staff computations. Note: (1) Averages over 2018-2024; (2) C-efficiency is the ratio of observed VAT collections over its theorical potential calculated by applying the standard VAT rate to aggregate private consumption.



- **15. VAT reform would include addressing excessive exemptions and zero ratings, as well as improving its refund mechanism.** Considering these weaknesses, a reform of the VAT system is advisable. Key actions include rationalizing exemptions and zero ratings and restricting the reduced rate to basic necessities⁷ and agricultural inputs. To restore VAT neutrality and improve compliance, reforms should also address legal and administrative obstacles to timely credit refunds and phase out exemptions and zero ratings in the oil & gas and real estate sectors. The total revenue gain from these reforms is estimated at approximately 0.75 percent of GDP, about half of the estimated VAT tax expenditures.
- 16. There is potential to expand excise taxation, including from fuels and tobacco. Tobacco products, alcohol, and selected luxury goods are appropriately taxed through the Domestic Tax on Consumption, while fossil fuels fall under the Tax on Petroleum Products (TPP). Algeria's excise system includes specific (ad quantum) taxes, which are well suited to address negative health and environmental externalities—an encouraging feature (see Table 1). However, as shown in Figure 4, excise revenues averaged only 0.9 percent of GDP between 2018 and 2024, compared to 2.2 percent in non-fuel-exporting countries. This points to scope for expanding excise taxation, with the added advantage—relative to many other tax reforms—of generating additional revenue in the short term. Tobacco excise taxes (on cigarettes) were increased in 2025 from 37 to 50 dinars per pack, marking a step in the right direction.

Table 1. Algeria: Excises Rates (Selection)

| Product | Fixed Rate/Proportional Rate |
|-----------------------|--|
| Cigarettes/Tobacco | 10–15% (additional), 5% (from 2022), DZD 50/pack (from 2024) |
| Electronic Cigarettes | 40% |
| Matches/Lighters | 20% |
| Beer | 3,971 DZD/hl (fixed), 10% (proportional) |
| Coffee | 10% |
| Luxury Goods | Up to 30% |
| Fuel (Normal) | 800 DZD/hl |
| Fuel (Super/Unleaded) | 900 DZD/hl |
| Diesel | 1 DZD/hl |

Sources: MoF, and IBFD.

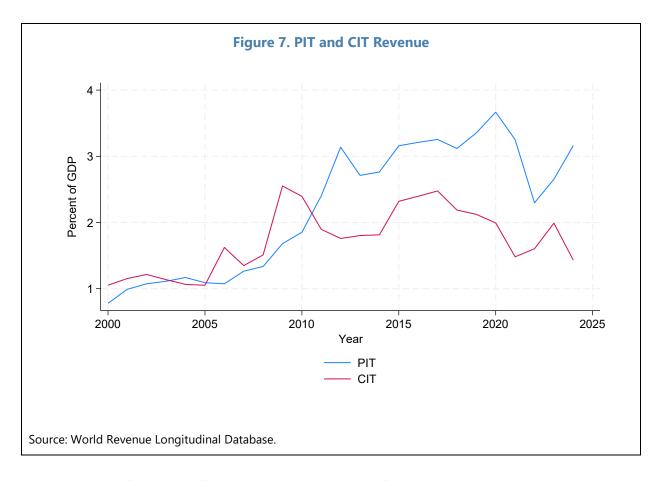
⁷ This reform should be coordinated with the reform of subsidies and related price regulations, which often apply to the same commodities.

⁸ Taxe intérieure de consommation.

Direct Taxation

- 17. The CIT features multiple rates and includes numerous exemptions and incentives. ⁹ The CIT applies at three distinct rates depending on the nature of the business activity. A reduced rate of 19 percent is applied to manufacturing activities, while a 23 percent rate applies to firms operating in construction, public works, hydraulics, tourism, and thermal activities (excluding travel agencies). All other activities are taxed at the standard rate of 26 percent. Additionally, manufacturing companies benefit from a reduced 10 percent corporate income tax rate when profits are reinvested, while expenses related to in-house R&D or innovation partnerships with certified start-ups are deductible up to 30 percent of taxable profits. In parallel, the 2022 Investment Code provides additional incentives under three regimes—sectoral, regional, and large-scale structural projects—offering generous tax holidays for up to ten years, depending on the nature and location of the investment.
- 18. This complexity undermines the neutrality, transparency and revenue potential of the CIT. Multiple rates and exemptions increase compliance costs for both businesses and the tax administration, while also facilitating non-compliance. For instance, applying a different rate to reinvested profits is notoriously difficult to monitor and administer, given that investment is usually financed from fungible sources. Moreover, multiple rates weaken sectoral neutrality. Ultimately, such complexity is likely to erode CIT revenue—which is significantly below that of peer countries, as noted above. As shown in Figure 7, CIT revenues have remained stagnant over the past decade and have been overtaken by PIT as a source of revenue.
- 19. The simplified tax regime for SMEs (*Impôt Forfaitaire Unique* IFU) covers about 80 percent of all businesses and plays a key role in promoting formalization. The IFU is a turnoverbased tax applied to SMEs with annual revenue below 8 million dinars (approximately USD 61,000). Rates range from 5 to 12 percent, and the minimum annual payment was increased from 10,000 to 20,000 dinars in 2025 in an effort to strengthen collections. Alongside the auto-entrepreneur regime, which targets self-employed individuals, the IFU supports small business integration into the formal economy. A key challenge to is, however, to encourage SMEs, as they grow, to switch to the standard regime which also strengthens the case for simplifying the standard CIT.

⁹ Impôt sur le bénéfice des sociétés.



20. Options for a CIT reform include streamlining of the rate structure and investment incentives. Rate uniformization and rationalization of tax incentives are promising directions for CIT reform. In addition, the ongoing international corporate tax reform under Pillar Two ¹⁰ offers an opportunity for Algeria to align its investment incentives with the global minimum tax framework, and to improve its minimum business taxation ¹¹. However, it is acknowledged that, since the changes to investment incentives are relatively recent (2022), significant reforms are probably not advisable in that area in the near term.

21. Improving the fiscal regime for the mining industry. With significant reserves of phosphates, iron, zinc, lead, and other minerals, the mining sector has strong potential to support both economic diversification and increased tax revenues. Introducing a more progressive, profit-based fiscal regime could make the sector more attractive to private investors, while also ensuring that the government captures a fair share of revenues during periods of high commodity prices.

¹⁰ Pillar Two is a global tax reform initiative that introduces a minimum effective corporate tax rate of 15 percent for large multinational companies to reduce profit shifting and tax competition. See https://www.oecd.org/en/topics/sub-issues/global-minimum-tax/global-anti-base-erosion-model-rules-pillar-two.html.

¹¹ Regardless of profitability, every company must currently pay a minimum annual corporate tax of DZD 10,000 (around US \$70).

Given the currently low revenue from the mining sector (around 0.02 percent of GDP), a profit-based progressive royalty system could likely generate additional revenue.¹²

22. The PIT has performed better, especially recently. ¹³ As shown in Figure 7, PIT revenues have been on an upward trend and broadly align with peers, as noted above. A revision in 2022 led to lower PIT rates, with many private sector workers falling below the exemption threshold. This reform improved the progressivity of the PIT, with no noticeable effect on overall PIT revenue so far (Figure 7) —possibly because the increase in public sector wages in 2022, 2023, and 2024 offset potential revenue losses. Table 2 shows that the redistributive capacity of the PIT (the difference between the pre- and post-Gini coefficient for the income distribution) is 4.78, comparable to that of selected comparator countries such as Egypt, South Africa, Tunisia, and Morocco. This is also visible in Figure 8, which reports the marginal and average rates of the PIT in these countries.

Table 2. Algeria: PIT Indicators and Comparators

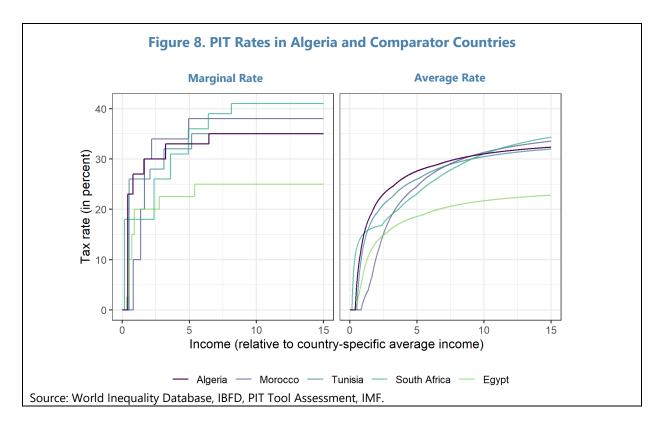
| Comparators | | | | |
|-------------|--|--|---|--|
| Algeria | Egypt | South Africa | Tunisia | Morocco |
| | | | | |
| 240,000 | 24,000 | 16,425 | 5,000 | 30,000 |
| 23.00 | 2.50 | 18.00 | 26.00 | 10.00 |
| 35.00 | 25.00 | 45.00 | 35.00 | 38.00 |
| | | | | |
| 3.14 | 1.64 | 9.11 | 7.58 | 3.62 |
| 17.49 | 19.54 | 34.27 | 39.25 | 70.10 |
| 19.10 | 11.87 | 25.32 | 16.44 | 13.73 |
| 19.50 | 12.17 | 25.96 | 18.35 | 18.79 |
| | | | | |
| 48.70 | 57.19 | 76.88 | 53.05 | 60.04 |
| 43.92 | 53.17 | 72.23 | 47.76 | 54.52 |
| 4.78 | 4.02 | 4.65 | 5.29 | 5.52 |
| | | | | |
| 1.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9.45 | 0.82 | 3.05 | 0.17 | 0.00 |
| 13.96 | 2.84 | 10.16 | 8.58 | 0.00 |
| 18.31 | 7.89 | 14.37 | 15.01 | 2.39 |
| 31.43 | 22.78 | 39.64 | 30.92 | 33.61 |
| | 240,000 23.00 35.00 3.14 17.49 19.10 19.50 48.70 43.92 4.78 1.75 9.45 13.96 18.31 | 240,000 24,000 23.00 2.50 35.00 25.00 3.14 1.64 17.49 19.54 19.10 11.87 19.50 12.17 48.70 57.19 43.92 53.17 4.78 4.02 1.75 0.00 9.45 0.82 13.96 2.84 18.31 7.89 | Algeria Egypt South Africa 240,000 24,000 16,425 23.00 2.50 18.00 35.00 25.00 45.00 3.14 1.64 9.11 17.49 19.54 34.27 19.10 11.87 25.32 19.50 12.17 25.96 48.70 57.19 76.88 43.92 53.17 72.23 4.78 4.02 4.65 1.75 0.00 0.00 9.45 0.82 3.05 13.96 2.84 10.16 18.31 7.89 14.37 | Algeria Egypt South Africa Tunisia 240,000 24,000 16,425 5,000 23.00 2.50 18.00 26.00 35.00 25.00 45.00 35.00 3.14 1.64 9.11 7.58 17.49 19.54 34.27 39.25 19.10 11.87 25.32 16.44 19.50 12.17 25.96 18.35 48.70 57.19 76.88 53.05 43.92 53.17 72.23 47.76 4.78 4.02 4.65 5.29 1.75 0.00 0.00 0.00 9.45 0.82 3.05 0.17 13.96 2.84 10.16 8.58 18.31 7.89 14.37 15.01 |

Source: PIT Tool Assessment, IMF.

Note: All values in percent except otherwise indicated. Latest years available.

¹² While energy and commodity prices are both influenced by common global demand trends, commodity prices—such as those of phosphates, iron, and zinc—respond more directly to sector-specific demand from agriculture and construction. As a result, increased revenue from the mining sector would not necessarily add to overall revenue volatility.

¹³ Impôt sur le revenu global.



- 23. Nevertheless, there is scope for PIT simplification. The PIT includes a multiplicity of brackets and a complex system of deductions and credits, contributing to compliance difficulties for both taxpayers and the administration. In fact, the PIT is characterized by a high degree of fragmentation due to a wide array of deductions, abatements, and tax credits, many of which are sectoral, categorical, or conditional. While some aim to ensure progressivity or protect low-income earners, the overall result is a system that is difficult to navigate for taxpayers and burdensome to administer. Simplifying the PIT structure—by consolidating deductions, limiting exemptions, and reviewing special regimes—would enhance fairness, improve compliance, and support stronger revenue mobilization.
- **24.** Algeria's property tax is a critical component of local government finance but faces significant structural challenges. ¹⁴ While it represents an important share of local tax revenues, the overall tax base remains narrow, and collection rates are low. As shown in Figure 4, its contribution to total revenue is minimal, despite estimates suggesting a potential of over 1 percent of GDP. One key factor behind this underperformance is that the administrative property values used to calculate the tax base are significantly out of step with actual market values. This undermines the ability of local governments—particularly in rural and smaller municipalities—to mobilize sufficient revenue to meet local needs. The development of a functional property tax system should therefore be an integral part of the broader tax reform agenda.

¹⁴ Taxe foncière.

25. Addressing small and inefficient taxes. Finally, Algeria's tax system includes numerous small taxes that generate limited revenue while imposing fixed administrative costs. ¹⁵ A comprehensive reform should reassess these taxes, weighing their individual revenue potential against the complexity they add to the system.

Tax Administration

- **26. Strengthening the tax administration.** Algeria's tax administration has made significant efforts to digitalize operations and improve information systems. Among further key potential improvements, introducing a comprehensive risk management framework for major sectors ¹⁶, including oil and gas, could significantly further enhance compliance and contribute to stabilize revenue.
- **27. Tax arrears recovery is a key revenue issue.** The tax administration has rightly allocated substantial resources to recovering outstanding tax debts, of which an estimated 1,500 billion dinars (around 4.4 percent of 2024 GDP) are considered recoverable. Potential annual recoveries are estimated at about 200 billion dinars, or 0.6 percent of GDP a very significant amount.
- **28.** Conducting a tax administration diagnostic assessment tool (TADAT) would help identify priorities in tax administration reform. TADAT is an internationally recognized framework developed by the IMF to assess the strengths and weaknesses of a country's tax administration. ¹⁷ TADAT uses a standardized methodology to evaluate key areas such as tax registration, filing, payment, compliance, and dispute resolution, covering major taxes like income tax and VAT. The assessment is structured around nine performance outcome areas, with results scored from A (good practice) to D (weak performance). TADAT provides governments and development partners with an objective basis for identifying reform priorities, tracking progress, and aligning technical assistance, thereby supporting more effective and transparent tax systems. Notably, Tunisia and Morocco have already conducted TADAT assessments in recent years.

D. Conclusion: Towards a Domestic Resource Mobilization Strategy

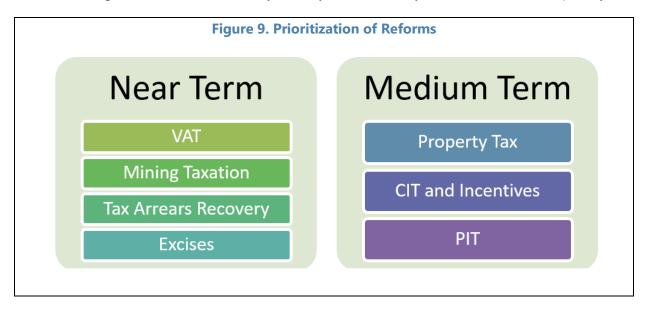
29. Significant additional domestic resources could be mobilized through further tax reform. Algeria has the potential to increase non-hydrocarbon tax revenues by an estimated 2 to 4 percent of GDP. Key reform priorities include broadening the tax base by streamlining exemptions and rates for core taxes, and strengthening under-utilized taxes such as excise duties, the property tax, and mining royalties.

¹⁵ Including the *Droits de timbre*, the *Taxe de domiciliation bancaire*, the *Taxe pour usage des appareils récepteurs de radiodiffusion et de la télévision*, and the *Taxe de publicité*. The *Loi de finance* 2025 alone created three new taxes : the *Taxe perçue au titre des autorisations de production audiovisuelle*, the *Taxe perçue sur la carte nationale du journalisme professionnel*, and the *Taxe perçue au titre de l'accréditation des correspondants permanents des médias de droit étranger*.

¹⁶ See Betts (2022).

¹⁷ See https://www.tadat.org/

- **30. Improving the tax system design.** Focusing on core domestic taxes reform priorities could involve:
- Streamlining tax rates, particularly in VAT and CIT, to reduce distortions and improve neutrality.
- Rationalizing tax exemptions and incentives for VAT, CIT and PIT, with clear criteria and limited use.
- Enhancing the design and performance of excise taxes, the property tax, and the fiscal regime for the mining sector.
- **31.** However, the stability of the tax system also matters, and careful consideration should be given to reform sequencing and prioritization. For example, as mentioned above, investment incentives were relatively recently modified (2022) and it would not be opportune to reform them again in the short term. Similarly, the PIT was recently reformed and does not present a priority either for the near term. Improvements in VAT, mining taxation and excises could happen sooner, as illustrated in Figure 9. Tax arrears recovery, already well under way, remains a short-term priority.



32. Towards a revenue mobilization strategy. A medium-term revenue strategy (MTRS) could be useful to implement a comprehensive tax reform, including on tax administration and compliance management. The MTRS is a framework typically spanning 4 to 6 years used to give visibility of the tax reform while ensuring the adequate coordination between tax policy changes, tax administration reforms and tax law codification. The MTRS has been used in 24 countries, including in Egypt and Morocco. ¹⁸ A MTRS frames tax system reform holistically over the medium term with four interdependent components:

¹⁸ See PCT (2023).

ALGERIA

- A sustained political commitment from formulation to implementation.
- A coordinated support among capacity development partners to align with government leadership and priorities.
- A quantified revenue target to support economic and social development.
- A comprehensive approach addressing policy, administration, and legal framework interlinkages.
- **33. Structural reforms would critically support a tax reform**. Broadening financial inclusion and limiting the use of cash in transactions, fighting corruption in tax administration and improving transparency and efforts to reduce the size of the informal sector would support the revenue mobilization objective.

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