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# Tax Potential in North Macedonia

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SIP/2026/049

**IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries.** It is based on the information available at the time it was completed on May 12, 2026. This paper is also published separately as IMF Country Report No 26/124.

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**Tax Potential in North Macedonia**  
**Prepared by Yuan Xiao, Faton Sulejmani and Anamaria Maftei**

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**ABSTRACT:** This paper assesses North Macedonia's tax potential and reform options to support fiscal consolidation and create space for rising long-term spending pressures. Tax revenue remains the lowest in the region, reflecting low statutory rates, extensive tax expenditures, weak tax efficiency, and a sizable informal economy. Using a stochastic frontier model for 154 countries, the paper estimates tax potential at about 21 percent of GDP, implying a tax gap of around 3½ percent of GDP. Closing this gap will require VAT base broadening, rationalized CIT incentives, more progressive PIT, higher environmental and health excises, stronger property taxation, and improved tax administration.

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**SELECTED ISSUES PAPERS**

# **Tax Potential in North Macedonia**

Republic of North Macedonia

Prepared by Yuan Xiao, Faton Sulejmani and Anamaria Maftai<sup>1</sup>

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# REPUBLIC OF NORTH MACEDONIA

## SELECTED ISSUES

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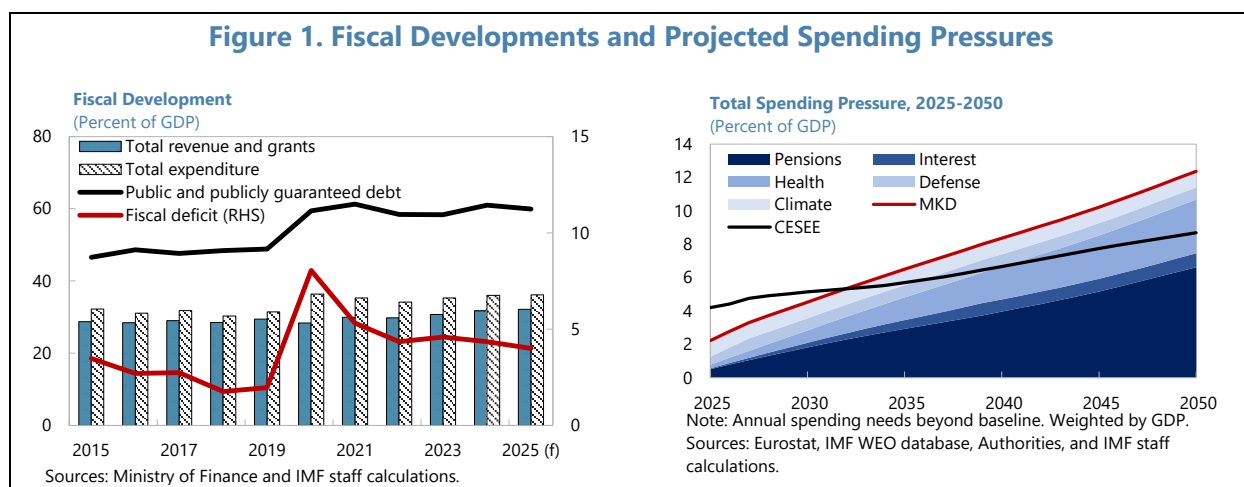
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## TAX POTENTIAL IN NORTH MACEDONIA

This paper assesses North Macedonia's tax potential and seeks to identify tax policy and administration measures to support the needed fiscal consolidation and create fiscal space for rising long-term spending pressures. Despite recent improvements, tax revenue remains the lowest in the region due to low statutory rates, extensive tax expenditures, and a sizable informal economy. Using a stochastic frontier model, the analysis estimates tax potential at about 21 percent of GDP, implying a tax gap of around 3½ percent of GDP. This gap can be closed through targeted tax policy reforms, including broadening of the VAT base, reforming corporate income tax, increasing progressivity of personal income tax, raising environmental and health excises, and strengthening property taxation. These measures should be complemented by efforts to reduce informality and improve tax administration, notably through digitalization, e-invoicing, and enhanced inter-agency coordination.

### A. Background

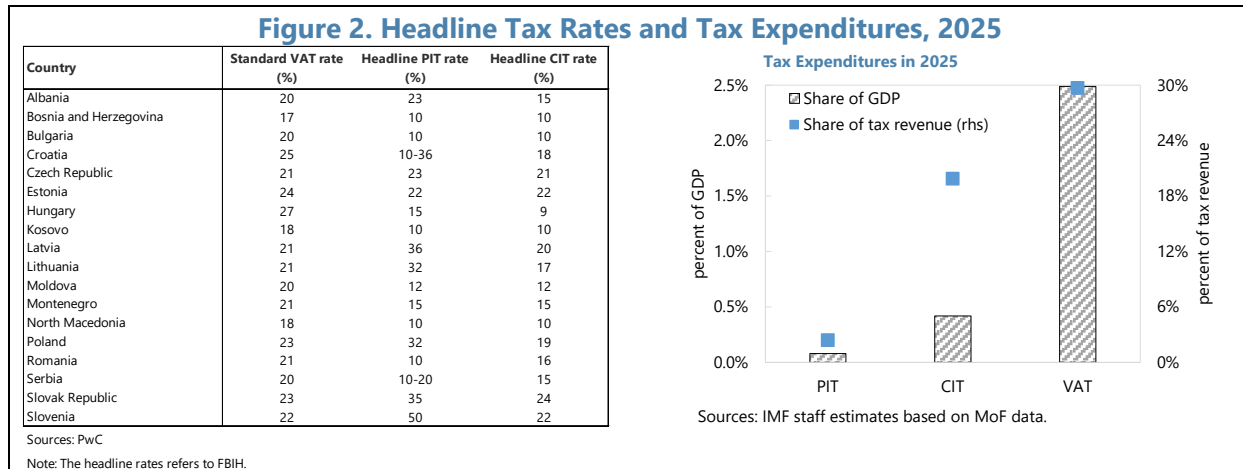
**1. North Macedonia needs significant fiscal space to contain high fiscal deficits and address the rising spending pressures.** Fiscal deficits increased in the aftermath of the pandemic, bringing public debt near to 60 percent—the limit set by the fiscal rule. 90 percent of government spending is allocated to current non-discretionary expenditures, projected to drive most of the anticipated increase in spending over the coming decades. Moreover, North Macedonia also has lower public capital stock and infrastructure quality compared to peers, underscoring the need for public investment, while pension spending needs are also expected to increase with population aging. Along with expenditure reprioritization, this needed fiscal space can be created by strengthening tax revenue mobilization through tax reforms and improved compliance.



**2. The country's tax system has remained largely stable in recent years, with statutory rates among the lowest in the Western Balkans and the CESEE region.** Personal and corporate income taxes have been set at a flat 10 percent since 2008, while the standard VAT rate is 18 percent, but subject to reduced and preferential rates of 5 and 10 percent and numerous exemptions. These headline rates are well below CESEE averages (23 percent for PIT, 16 percent for

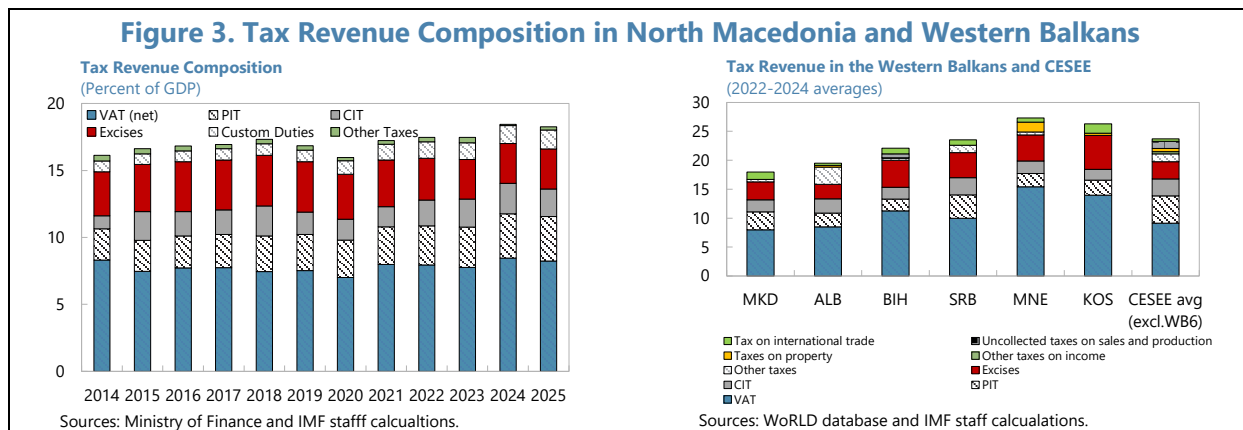
CIT, and 21 percent for VAT), and extensive tax expenditures further reduce effective rates. Tax expenditures are estimated at around 3 percent of GDP in 2025 (16.3 percent of total tax revenues), the bulk of which stem from VAT—about 2.5 percent of GDP—largely reflecting the widespread use of the 5 percent rate. While tax revenue collection has improved from about 16 percent of GDP in 2014 to 18.4 percent in 2025, North Macedonia continues to record the lowest tax-to-GDP ratio in the region.<sup>1</sup> VAT remains the main revenue source at around 8.4 percent of GDP but is the weakest performer among Western Balkan peers and below the CESEE average, pointing to significant scope for revenue mobilization through base broadening and rationalization of reduced rates and exemptions. Excise revenues also underperform relative to regional peers, while PIT collection, at 3.3 percent of GDP, has strengthened but remains below the CESEE average, and CIT yields (about 2.1 percent of GDP) are modest. Overall, the revenue structure highlights persistent gaps relative to peers and underscores the need to enhance compliance, reduce tax expenditures, and pursue further tax policy reforms.

**Figure 2. Headline Tax Rates and Tax Expenditures, 2025**



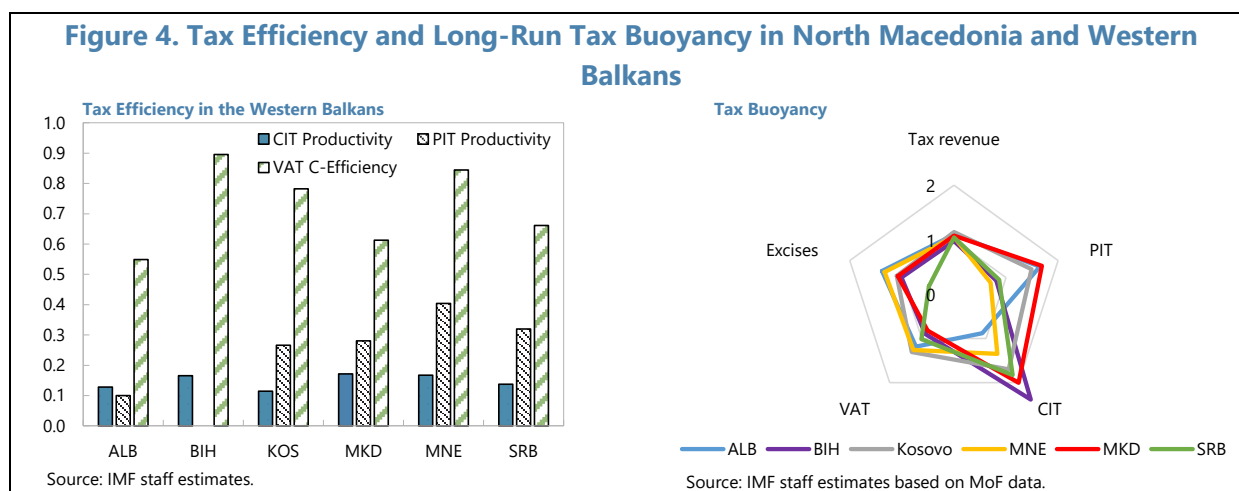
Sources: PwC  
Note: The headline rates refers to FBiH.

**Figure 3. Tax Revenue Composition in North Macedonia and Western Balkans**



<sup>1</sup> Social security contributions (SSCs) are excluded throughout this analysis, as they are generally earmarked to finance social insurance benefits. This distinction helps separate taxes levied to fund general government expenditure from mandatory contributions tied to individual benefit entitlements. At the same time, SSCs remain important for assessing the overall tax wedge and labor cost burden, particularly in cross-country comparisons where SSC rates vary significantly.

**3. Weak tax efficiency further constrains revenue performance.** As illustrated in Figure 4, VAT C-efficiency remains below several regional peers, pointing to losses from base erosion.<sup>2</sup> Productivity indicators for PIT and CIT are also modest, reflecting a combination of low statutory rates, limited progressivity, extensive reliefs, and informality.<sup>3</sup> Tax buoyancy indicators suggest that a response of overall tax revenue to economic growth over the long run is weaker in North Macedonia than in peer countries, particularly for VAT and excises, indicating structural weaknesses that limit automatic revenue gains during expansions.<sup>4</sup> PIT and CIT exhibit buoyancy estimates above 1.5, implying a relatively strong response of revenues to growth. This suggests that revenue mobilization should focus on greater progressivity in the PIT and narrowing the CIT base through a review of incentives and exemptions.



**4. The government is committed to increasing tax compliance and reducing the informal sector to support planned fiscal consolidation.** The informal economy in North Macedonia is estimated at approximately 33 percent of GDP, which according to the World Bank, is notably higher than the 26 percent average in CESEE countries (excluding Western Balkans), and is the largest in the Western Balkans.<sup>5</sup> The Government Program for 2024–28 clearly states the intention to maintain low tax rates while prioritizing enhanced domestic revenue mobilization, primarily through digitalization. Combating the informal economy is also a priority in the Public Revenue Office's (PRO) Strategic Plan for 2025–27. The planned actions include improving early detection of incorrectly reported

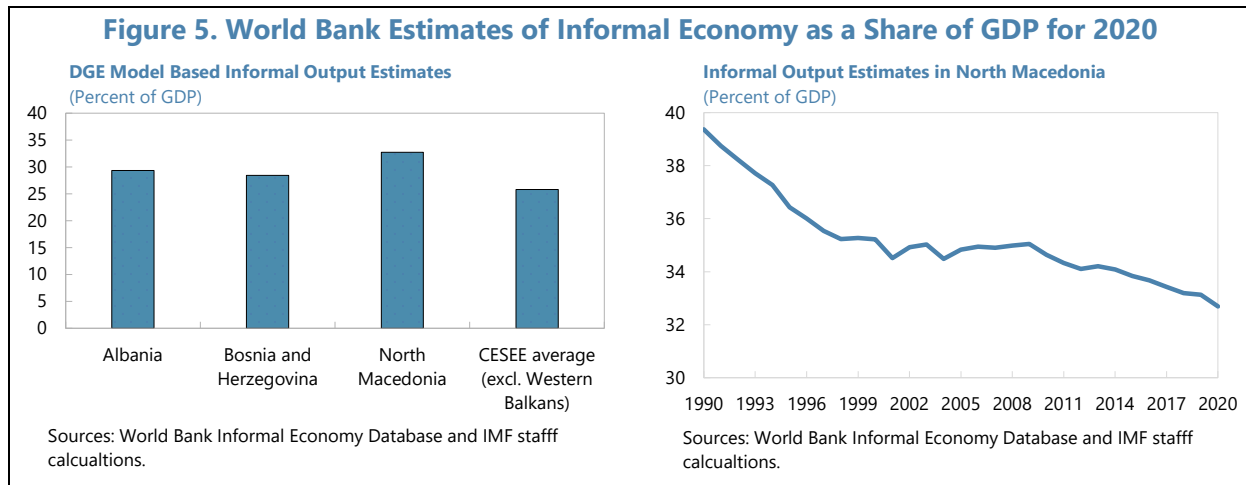
<sup>2</sup> VAT C-efficiency is the ratio of actual VAT revenue to potential revenue, defined as net consumption multiplied by the standard VAT rate.

<sup>3</sup> PIT and CIT productivity are measured as revenue (percent of GDP) relative to statutory rates (a weighted average for PIT for progressive systems).

<sup>4</sup> Tax buoyancy captures the combined effect of macroeconomic developments and discretionary policy changes on tax revenue. Following the baseline error-correction specification, we estimate:  $\Delta \ln Tax_{c,t} = \lambda_c \ln Tax_{c,t-1} + \gamma_c \Delta \ln GDP_{c,t} + \delta_c \ln GDP_{c,t-1} + \mu_c + \varepsilon_{c,t}$ , where  $\gamma_c$  measures the short-term (instantaneous) buoyancy in country  $c$  at time  $t$ ,  $\lambda_c$  is the speed of adjustment toward the long-run equilibrium, and  $\mu_c$  captures country-specific effects. The long-run buoyancy reported in the figure is given by:  $\theta_c = -\frac{\delta_c}{\lambda_c}$ . This approach follows the methodology of Cornevin, and others (2023).

<sup>5</sup> Elgin, and others (2021).

taxes, conducting advanced risk analyses, implementing targeted and more effective audits also through prioritization of informality prone sectors, strengthening the tax audit program, and enhancing enforcement and sanctions. Digital transformation will be central to reducing informality and increasing compliance, with initiatives such as upgrading PRO’s electronic tax system (E-PRO) and the analytical capacity, and reinforcing the reliability, security, and sustainability of PRO’s IT infrastructure (see Annex VII of the 2025 Article IV report for North Macedonia). The PRO has already made progress, launching the testing phase of the e-invoicing project as of January 1, 2026. Additionally, the Ministry of Finance has announced plans to review tax laws—including VAT, PIT, and CIT—with the goal of streamlining regulations and further improving compliance.



## B. Tax Potential

**5. The stochastic frontier model is an econometric approach used to estimate a country’s tax capacity by analyzing the gap between actual and potential tax revenue (based on given fundamentals).**<sup>6</sup> The model assumes a functional relationship between tax revenue and explanatory variables—such as GDP, trade openness, governance, and demographic features—with a composed error term that accounts for inefficiency and random shocks. It allows for separation of inefficiency effects from random noise in the observed data, and takes the following form:

$$\ln(TaxRev_{it}) = \beta_0 + \beta_1 \ln(X_{it}) + v_{it} - u_{it}$$

where  $TaxRev_{it}$  is the tax revenue collected by country  $i$  in year  $t$ ;  $X_{it}$  represents explanatory variables affecting tax revenue, such as GDP, trade openness, or governance indicators;  $v_{it}$  is a two-sided symmetric error term representing statistical noise (e.g., measurement errors, external shocks). It is assumed to be normally distributed; and  $u_{it}$  is the one-sided non-negative tax inefficiency, capturing deviations from the frontier (maximum potential revenue) due to factors like tax evasion, exemptions, and administrative weaknesses and provides insights into the gap between actual and

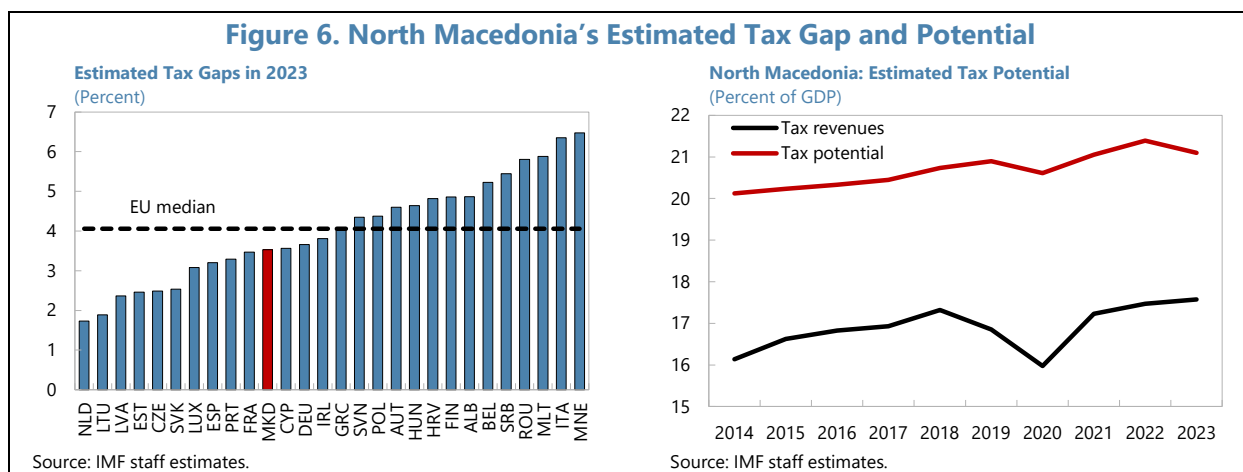
<sup>6</sup> Non-tax revenue is excluded from the analysis due to outliers that can bias the estimates. Generally, relying on yields from natural resources for fiscal sustainability poses several risks: revenue volatility due to price fluctuations, resource depletion, economic instability from overdependence, and governance challenges like rent-seeking.

potential tax revenue performance. It follows a half-normal distribution. True Random Effects are used, assuming time-invariant heterogeneity is uncorrelated with explanatory variables. The tax effort is computed as:

$$Tax\ effort = exp^{-u_i}$$

where values close to 1 indicate higher efficiency. The inefficiency component captures deviations due to structural, administrative, or policy-related constraints, as evaluated at existing fundamentals (i.e., abstracts from the higher tax revenue that could be achieved by, e.g., enhancing governance).

**6. The results from a panel of 154 countries suggest that North Macedonia currently has an estimated a tax gap of 3½ percent of GDP and tax potential of 21 percent of GDP (Annex I).** The size of the estimated tax gap is comparable to both the Western Balkan region and the EU median.<sup>7</sup> However, the tax gap has been persistent over time, suggesting that no systematic measures have been taken to narrow it. These results show that North Macedonia’s tax revenue could potentially reach 21 percent of GDP if reforms are undertaken to reduce inefficiencies in tax collection.



### C. Policy Recommendations

#### Tax Policy Proprieties

**7. Rationalizing VAT expenditures that are poorly targeted and costly should be a core pillar of the domestic revenue mobilization strategy.** These include phasing out of the reduced VAT rate of 5 percent for accommodation services and meals provided by hotels, hostels, and motels, and the reduced VAT rate of 10 percent for restaurants. These reduced rates generate significant revenue losses and largely benefit higher-income consumers and the tourism sector. Similarly, the VAT exemption for the use of toll roads is an untargeted subsidy which also

<sup>7</sup> The estimates should be interpreted as broad, indicative metrics rather than precise targets, given their sensitivity to specification choices and underlying assumptions. They are best used to inform long-term revenue mobilization priorities.

undermines the user-pays principle in transport infrastructure financing. The effectiveness of the MY VAT Program, which aims to incentivize citizens to request fiscal receipts and help combat the informal economy, should also be reviewed, as such schemes tend to be administratively complex, prone to leakage, and less effective than direct spending instruments. A broad-based VAT with limited exemptions and a single rate is among the least distortive and most reliable instruments for domestic revenue mobilization.

**8. Open-ended and weakly targeted CIT incentives should be scaled back to broaden the base and contain fiscal costs.** Generous exemptions—most notably the ten-year profit tax holiday for firms in Technological-Industrial Development Zones (TIDZs)—entail significant revenue losses of around 20 percent of CIT revenue, while benefits are unclear. Subjecting incentives not linked to performance criteria to periodic review and sunset provisions would strengthen the tax base. Similarly, the reinvested profits deduction disproportionately benefits established, highly profitable firms, while limiting access for startups and fast-growing firms.<sup>8</sup> Given the already low 10 percent statutory CIT rate and fiscal consolidation needs, this costly preference could be curtailed. Any consideration of a higher statutory rate should be secondary to base broadening. Over the medium term, aligning the rate more closely with the 15 percent global minimum could eventually simplify the system and modestly raise revenue.

**9. Introducing greater progressivity in personal income taxation can support both equity and revenue objectives.** While PIT reform is not the largest lever for domestic revenue mobilization, it plays an important role in improving the fairness of the tax system. North Macedonia's PIT remains largely flat, delivering weak vertical equity and undermining both revenue and efficiency. Large differences in effective taxation between labor income, service contracts, and capital income weaken the PIT's redistributive capacity and encourage income reclassification. Over time, a more neutral PIT structure would allow the authorities to rely less on high social security contributions for revenue, easing pressure on labor costs while improving the overall progressivity of the tax-benefit system.<sup>9</sup>

**10. Environmental and health-related excises remain below potential in supporting sustainability and public health objectives.** While North Macedonia's excise framework broadly aligns with EU directives, most rates—particularly on petrol, diesel, liquefied petroleum gas, and cigarettes—remain below the minimum thresholds set in the Energy Taxation and Tobacco Excise Directives. Excises on alcohol products is broadly consistent with the EU rules, including the zero minimum rate permitted for wine. EU minimum rates should be viewed as a floor rather than a policy target, as these benchmarks are relatively outdated. Moreover, the absence of an excise on sugar-sweetened beverages represents a missed opportunity to address diet-related health risks through an administratively feasible instrument. Such taxes are generally efficient revenue tools, as

<sup>8</sup> Reported “double-dipping” underscores the need for stronger coordination between tax incentives and spending programs.

<sup>9</sup> The scope for reducing reliance on social security contributions depends on the financial sustainability of social insurance schemes. Any shift away from SSC financing would need to be accompanied by measures to address pension and health insurance deficits, including parametric reforms and/or increased budget transfers.

they apply to relatively inelastic bases while helping internalize negative externalities.<sup>10</sup> Given the—energy shock related to the Middle East war and the temporary reductions in fuel excises, further strengthening of environmental and health-related excises would be more appropriate once inflationary pressures subside.

**Figure 7. Selected Tax Rates in North Macedonia: Energy Excises and Property Taxes**

**North Macedonia vs EU Directive – Excise Duties on Energy Products (Motor Fuels)**

Product	North Macedonia excise	EU minimum rate	Unit
Unleaded petrol	~ 0.352	0.359	EUR/liter
Leaded petrol	~ 0.396	0.421	EUR/liter
Diesel	~ 0.245	0.33	EUR/liter
Kerosene	~ 0.146	0.33	EUR/liter
LPG	~ 0.079	0.125	EUR/kg

Sources: MoF data and Energy Taxation Directive 2003/96/EC

**Local Recurrent Property Tax Rates in SEE Countries**

Country	Tax base	Statutory rate (typical range)	Level of government
Albania	Market value (buildings)	0.05% (residential); ~0.2% (commercial)	Municipal
North Macedonia	Market value (land & buildings)	0.10% – 0.20% (up to 3× for unused agricultural land)	Municipal
Serbia	Market value	0.10% – 0.40% (higher for legal entities)	Municipal
Bosnia & Herzegovina (FBiH)	Area-based (m <sup>2</sup> )	0.5 – 3 BAM per m <sup>2</sup>	Cantonal / Municipal
Bosnia & Herzegovina (RS)	Market value	0.05% – 0.20%	Municipal
Montenegro	Market value	0.10% – 1.00%	Municipal
Kosovo	Market value	0.05% – 1.00%	Municipal

Sources: Tax laws and comparative regional overviews [y-tax.al], [finance.gov.mk], [balkanglobalhub.com]

**11. Recurrent property taxation remains underutilized as a stable, growth-friendly source of local revenue.** In North Macedonia, low yields relative to potential and regional peers reflect low statutory rates, exemptions—particularly for owner-occupied housing—and weak valuation practices. Gradual reforms could strengthen municipal finances, support fiscal decentralization, and rebalance the tax mix over the medium term. Priorities include phasing out poorly targeted exemptions in favor of more progressive instruments, such as a basic value threshold or targeted deferral mechanisms, alongside a gradual increase in statutory rates toward 0.3–0.6 percent. These measures should be supported by modernized valuation practices, including consistent market-value assessments, improved transaction recording, and eventual use of automated mass appraisal techniques, with some centralization of expertise to enhance fairness, transparency, and administrative efficiency while retaining the tax as a local revenue source.

**Tax administration priorities**

**12. Strengthening tax administration is also essential to close the tax gap.** Besides ongoing reforms guided by the PRO's Strategic Plan (2025–27), the PRO's human resource capacity needs to

<sup>10</sup> Where demand is relatively price responsive, as may be the case for sugar-sweetened beverages, revenue objectives should be balanced against the objective of reducing consumption.

be strengthened urgently in terms of staffing and analytical and technical capacity. The IT infrastructure for tax payments is also outdated and could become a bottleneck when greater digitalization (e.g., e-invoicing) is deployed. In this regard, adopting a COTS solution would be a much-needed change. The Fund has provided ongoing capacity building support to PRO, with the following priorities in the coming years: (i) Improving the Compliance Risk Management, (ii) strengthening audit and verification approaches and methods, (iii) modernizing the organizational structure of the PRO and improving the collection and debt management functions, and (iv) accelerating digitalization and business process reengineering.

**13. E-invoicing is a promising solution to combat the shadow economy and raise more revenue.** While electronic payment of taxes is already ubiquitous in North Macedonia, PRO has recently launched an e-invoicing project. An IMF review of Peru's e-invoice adoption finds that it increased reported sales, purchases, and value-added by over 5 percent in the first year.<sup>11</sup> Cross country evidence suggests that the adoption of e-invoicing and electronic fiscal devices can improve revenue mobilization by 0.7 percent and 0.5 percent of GDP, respectively.<sup>12</sup> Importantly, their effects depend on the type of tax (more effective for VAT and corporate income tax), the availability of complementary human and physical resources, and adequate and sufficient resources, tools, and skills for analysis of mass data and its integration into overall compliance work, and can be enhanced by expanding digital connectivity and ensuring sufficient staffing and expertise among tax officials.

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<sup>11</sup> Bellon, et al (2019).

<sup>12</sup> Amaglobeli, et al (2023).

## Annex I. Panel Regression

**Annex I. Table 1. North Macedonia: Estimation Results**

True random-effects model (half-normal)	Number of obs	= 3427
	Number of groups	= 154
	Obs per group: min	= 4
	avg	= 22.3
	max	= 25
	Prob > chi2	= 0.0000
Log simulated-likelihood = 1022.5434	Wald chi2(2)	= 45.01

Number of Randomized Halton Sequences = 50

Base for Randomized Halton Sequences = 7

	ln_TaxRev	Coefficient	Robust std. err.	z	P> z	[95% conf. interval]	
<b>Frontier</b>							
ln_wdi_gdppcpcppp_cons_id		2.093326	0.3933692	5.32	0.000	1.322337	2.864316
ln_wdi_gdppcpcppp_cons_id_sq		-0.1009701	0.0193115	-5.23	0.000	-0.13882	-0.0631202
ln_wdi_agri_gdp		0.0301718	0.1182026	0.26	0.799	-0.201501	0.2618446
ln_wdi_trade_gdp		0.1149826	0.046156	2.49	0.013	0.0245185	0.2054467
ln_vdem_pubcorr		-0.0315164	0.017714	-1.78	0.075	-0.0662352	0.0032025
_cons		-8.032839	1.903737	-4.22	0.000	-11.7641	-4.301583
<b>Usigma</b>							
adj_wdi_ge_est		-0.905161	0.2304921	-3.93	0.000	-1.356917	-0.4534047
_cons		1.440603	1.147356	1.26	0.209	-0.8081742	3.68938
<b>Vsigma</b>							
_cons		-4.856471	0.7814323	-6.21	0.000	-6.38805	-3.324892
<b>Theta</b>							
_cons		1.15586	0.0178706	64.68	0.000	1.120834	1.190886
E(sigma_u)		0.2315971				0.2284247	0.2347695
sigma_v		0.0881923	0.0344582	2.56	0.010	0.0410065	0.1896745

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