Tax Revenue Growth and Formalization

Republic of Kosovo

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Tax Revenue Growth and Formalization, Republic of Kosovo
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1.   **ABSTRACT:** Among western Balkan countries, Kosovo had the largest growth in tax revenue in percent of GDP over 2021-22. While part of this strong performance could be explained by increased activity, surging inflation, and buoyance, a sizable part of it is related to increased formalization. This paper analyzes the extent to which tax revenue increases may have grown due to gains in formalization, both of workers and businesses, by applying a simple accounting framework to disentangle the sources of tax collection increases.

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INTERNATIONAL MONETARY FUND

REPUBLIC OF KOSOVO

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KOSOVO: TAX REVENUE GROWTH AND FORMALIZATION[1]

A. Introduction

1.   Kosovo's tax revenue over 2021–22 has surpassed tax base growth. Following the pandemic, tax revenue grew strongly, posting the largest increase among western Balkan countries. While part of this strong performance reflects increased activity, surging inflation, and buoyancy, this note explores the extent to which tax revenue increases may have also grown due to gains in formalization, both of workers and businesses.

Changes in Taxes: 2019–2022
(Percentage points of GDP)

Sources: World Economic Outlook, IMF and country statistics offices.
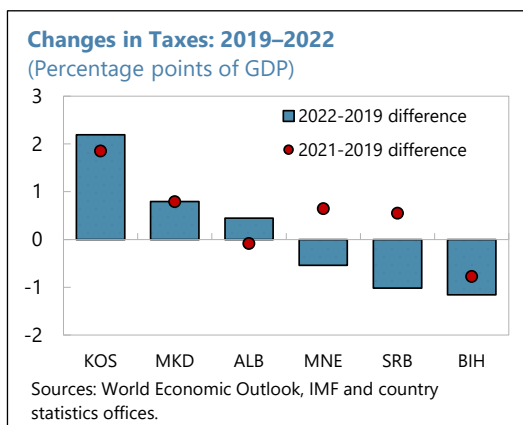
2.   Kosovo's tax system is based on consumption and income taxes, which together make up around 25 percent of GDP. Historically, consumption taxes, which include value-added taxes (VAT), excise, and customs, have been the major source of revenue in Kosovo. Income taxes, including corporate income taxes (CIT) and personal income taxes (PIT), have played a more limited role.

3.   Government revenues from both consumption and income taxes are affected by relatively high informality rates. Accordingly, increasing formalization has become a policy priority in recent years, as it would contribute to larger fiscal space and a more even level playing field. At the tax administration level, this has been reflected in more frequent, risk-based audits and inspections, and at the budgetary level through incentives to formalize workers.

Tax Rates in Western Balkans
(Percent)

Source: Country tax office websites.

Share of Different Taxes in Total Tax Revenues: 2012–2022
(Percent)

Sources: Kosovo Ministry of Finance and IMF staff calculations.

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[1] Prepared by Amanda Edwards, Ezgi O. Ozturk, and Selim Thaci. Sabiha Mohona provided research assistance.

Tax Revenue Growth
(Percent, year-on-year)
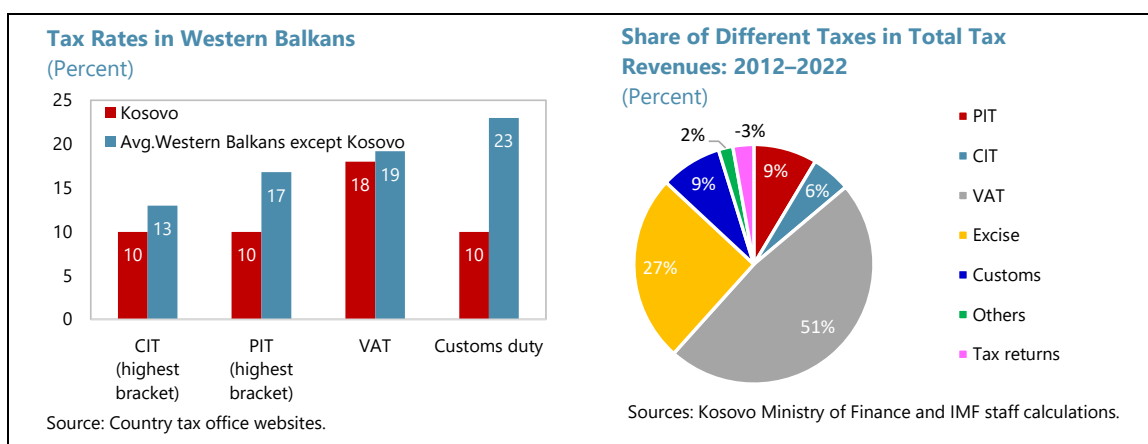Sources: Kosovo Ministry of finance and IMF staff calculations.

Contribution to Cumulative Revenue Growth
(Percent)
Sources: Kosovo Ministry of finance and IMF staff calculations.
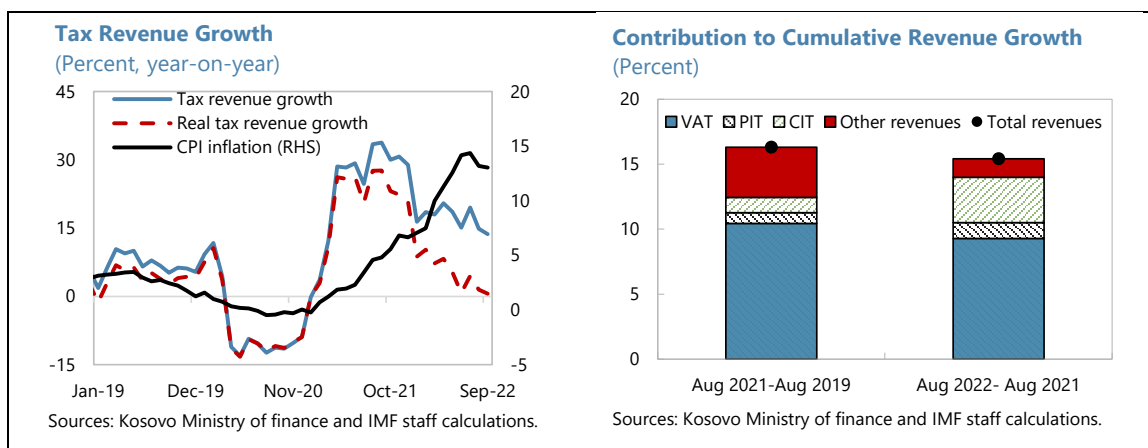
B. Recent Developments in Tax Revenues

4.   Tax revenues overshot pre-pandemic levels already in 2021. While a strong rebound in diaspora inflows, mobility normalization and supportive policies led to a fast recovery of economic activity, consumption taxes (VAT and excises) in percent of 2021 GDP overshot their pre-pandemic levels. Income taxes as a share of GDP also expanded, reflecting the strong performance of corporates as well as increases in both employment and salaries.

Dynamics of Revenues in Percent of GDP
(Index, 2019 =100)
Sources: Kosovo Ministry of Finance and IMF staff calculations.

5.   Tax revenue growth continued in 2022, parallel to the surge in inflation. Economic activity slowed in 2022, given the impact of the terms-of-trade shock on private demand, and inflation. Despite this, VAT and income taxes kept rising as a share of GDP; excises declined, as taxes per unit were kept largely unchanged. Custom duties continued to decline reflecting the continued implementation of free trade agreements with the European Union and Türkiye.
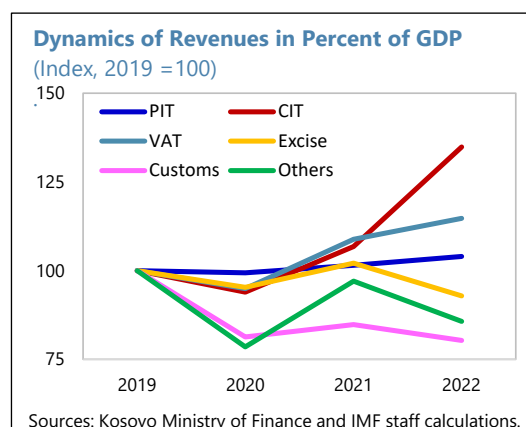
C. Disentangling the Sources of Tax Revenue Increase: The Role of Formalization

6.   This note applies a simple accounting framework to disentangle the sources of tax collection increases. Tax revenue changes reflect changes in the tax base, the effective tax rate, buoyancy, and tax collection improvements. Tax revenues can be defined as follows:

$$T_t^R = \tau_t^{E,R} \left[[P_t Q_t (1 - \lambda_t^R)] \left(Y_t / Y_t^* \right)^{\eta_R} \right] \quad (I)$$

where T_t^R is tax revenue in time t, and $\tau_t^{E,R}$ is the effective tax rate in time t, measured as the ratio of tax revenue to declared tax base; P_t denotes the price level, changes of which are defined as inflation $\pi_t = \left(P_t / P_{t-1} - 1 \right)$, and Q_t denotes the real tax base, changes of which are defined as $\gamma_t =$

$\left(\frac{Q_t}{Q_{t-1}} - 1\right).$ [2] The yield $\left(\frac{Y_t}{Y_t^*}\right)^{\eta_R}$ denotes the GDP to potential GDP ratio to the power of revenue elasticity with respect to the output gap, η_t , and changes in this yield $g_t = \left(\frac{Y_t}{Y_t^*} - 1\right)$ provide buoyancy.[3] And the tax gap, λ_t, is the difference between the actual tax base and effective revenues, changes in which represent changes in tax collection, including through improved formalization and other factors. Changes in revenues can then be expressed as follows:

$$(1 + \varphi_t^R) = \frac{\tau_t^{E,R}}{\tau_{t-1}^{E,R}} (1 + \pi_t)(1 + \gamma_t) \left(\frac{1 - \lambda_t^R}{1 - \lambda_{t-1}^R}\right) \left(\frac{1 + g_t}{1 + g_{t-1}}\right)^{\eta_R} \quad \text{(II)}$$

Applying logarithms, (II) can be re-expressed as:

$$\varphi_t^R \approx \pi_t + \gamma_t + \Delta\lambda_t^R + \Delta g_t + \Delta\tau_t^{(E,R)} \quad \text{(III)}$$

7.   About a third of VAT revenue increases in 2020–22 could be explained by improvements in tax administration, including increased formalization (Table 1A). While the VAT increase is mainly explained by the evolution of the tax base, increases in formalization have played a significant role. This has been supported by efforts by the Tax Administration of Kosovo (TAK) in the form of increased in-person audits and controls, and inspections. On a year-on-year basis, improvements in tax administration contributed about 35 percent of VAT revenue increases in 2021 and around 22 percent of VAT increases in 2022.
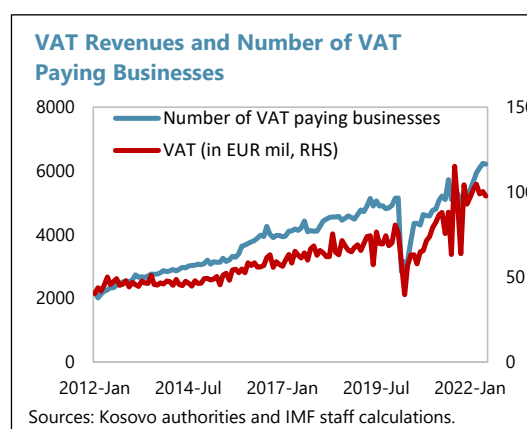
VAT Revenues and Number of VAT Paying Businesses

Sources: Kosovo authorities and IMF staff calculations.

Table 1a. Kosovo: Value-Added Taxes: Revenue Change and Contributing Factors

	Millions of euro					Percent				
	2019	2020	2021	2022	Cumulative 2020-2022	2019	2020	2021	2022	Cumulative 2020-2022
Value-Added Taxes (VAT)										
Change in total VAT revenues	46.6	-75.6	268.2	190.1	382.7	5.8	-8.9	34.8	18.3	100%
Contribution factors										
Inflation	49.2	10.5	130.1	146.4	287.0	6.2	1.2	16.9	14.1	75%
Change in real demand	-8.3	-9.1	-7.5	-1.9	-18.5	-1.0	-1.1	-1.0	-0.2	-5%
Buoyancy	7.6	-52.8	39.6	0.0	-13.2	0.9	-6.2	5.1	0.0	-3%
Change in effective tax rate	0.6	-8.2	12.3	4.5	8.6	0.1	-1.0	1.6	0.4	2%
Collection improvement, including formalization	-2.5	-16.1	93.7	41.1	118.7	-0.3	-1.9	12.2	4.0	31%

Sources: Tax Administration Authority of Kosovo and IMF staff calculations.

8.   Improvements in tax collection could also explain about one fifth of PIT revenue increases over 2020–22 (Table 1B). Although public sector wages remained unchanged, private

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[2] Inflation reflects the taxable goods deflator change for VAT, wage inflation for PIT, and profit inflation for CIT. Real demand reflects the quantity of taxable goods, calculated based on domestic demand for VAT, the actual number of employees, which is calculated based on Labor Force Survey data and assuming an informal employment rate of 20 percent, a share of labor in GDP at factor cost of 0.5, for PIT, and the number of CIT paying businesses for CIT.

[3] Based on related literature in emerging markets, the elasticity of tax revenues to the output gap is assumed to be 0.85 for VAT, 0.5 for PIT, and 0.7 for CIT.
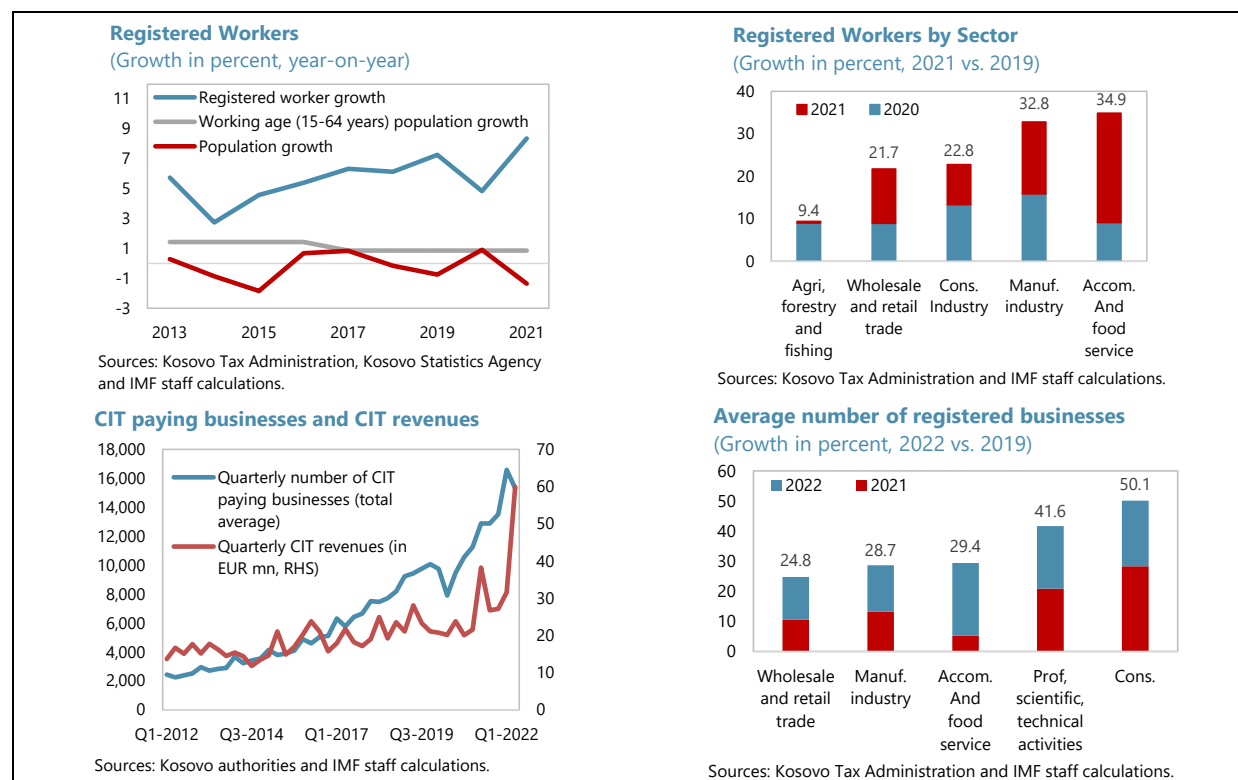
sector wages continued to increase, especially in 2022, leading to increases in PIT revenues. In 2020-21, the government subsidies for registered employees to mitigate the negative impact of the COVID-19 pandemic on households and firms helped to shift more employees from the informal to the formal sector. This effort, coupled with increased labor demand at the time of the strong activity rebound resulted in increased numbers of employees (shown as change in real demand in Table 1B), which contributed around 60 percent of PIT revenue growth in 2021.

Table 1b. Kosovo: Personal Income Taxes: Revenue Change and Contributing Factors

	Millions of euro					Percent				
	2019	2020	2021	2022	Cumulative 2020-2022	2019	2020	2021	2022	Cumulative 2020-2022
Personal Income Taxes (PIT)										
Change in total PIT revenues	9.1	-1.8	24.8	24.5	47.5	7.0	-1.3	18.0	15.0	100%
Contribution factors										
Inflation	1.6	7.2	3.2	15.0	25.4	1.2	5.2	2.3	9.2	54%
Change in real demand	6.2	-7.5	14.8	4.4	11.8	4.8	-5.3	10.7	2.7	25%
Buoyancy	0.7	-5.2	4.1	0.0	-1.1	0.6	-3.7	3.0	0.0	-2%
Change in effective tax rate	-0.1	-0.7	0.9	0.7	0.9	-0.1	-0.5	0.6	0.5	2%
Collection improvement, including formalization	0.7	4.4	1.8	4.3	10.5	0.5	3.1	1.3	2.6	22%

Sources: Tax Administration Authority of Kosovo and IMF staff calculations.

9.   Sector-level data shows that government support to increase formal employment, including of females, also led to PIT revenue growth. Increased employment in sectors that tend to have relatively high levels of informality, such as accommodation and food service and construction have expanded the PIT's tax base. Increased female employment can also explain part of the growth in registered employees. While female employment in Kosovo has been relatively low, it grew more rapidly than male employment over the past decade, resulting in an increase in the share of females in total employment from around 30 percent in 2012 to around 40 percent in 2022.

Registered Workers
(Growth in percent, year-on-year)

Sources: Kosovo Tax Administration, Kosovo Statistics Agency and IMF staff calculations.

Registered Workers by Sector
(Growth in percent, 2021 vs. 2019)

Sources: Kosovo Tax Administration and IMF staff calculations.

CIT paying businesses and CIT revenues

Sources: Kosovo authorities and IMF staff calculations.

Average number of registered businesses
(Growth in percent, 2022 vs. 2019)

Sources: Kosovo Tax Administration and IMF staff calculations.

10.   Improved tax collection could explain about two thirds of CIT revenue increases over 2020–22 (Table 1C). The number of CIT paying businesses increased strongly during the recovery following the pandemic-related downturn. The contribution of newly registered firms to CIT revenues increased from around 4 percent of annual CIT in 2019 to 6 percent in 2021, reflecting more business registrations also from sectors that tend to have relatively high levels of informality. The authorities have aimed to maintain and increase the number of registered businesses including through the help of grants and loan guarantees, even though according to the authorities the take-up of these support measures has been lower than the allocated amounts in the budget, particularly with regards to support for female entrepreneurs.

Table 1c. Kosovo: Corporate Income Taxes: Revenue Change and Contributing Factors

| | Millions of euro | | | | | Percent | | | | |
	2019	2020	2021	2022	Cumulative 2020-2022	2019	2020	2021	2022	Cumulative 2020-2022
Corporate Income Taxes (CIT)										
Change in total CIT revenues	7.8	-9.3	28.7	47.6	66.9	9.0	-9.8	33.6	41.7	100%
Contribution factors										
Inflation	0.1	2.2	-2.8	10.0	9.4	0.1	2.4	-3.3	8.8	14%
Change in real demand	5.2	-2.6	14.7	3.5	15.6	6.0	-2.8	17.2	3.1	23%
Buoyancy	0.7	-4.9	3.6	0.0	-1.3	0.8	-5.2	4.2	0.0	-2%
Change in effective tax rate	0.1	-0.3	0.5	1.1	1.2	0.1	-0.3	0.5	0.9	2%
Collection improvement, including formalization	1.8	-3.8	12.8	33.0	42.0	2.1	-4.0	15.0	28.9	63%

Sources: Tax Administration Authority of Kosovo and IMF staff calculations.

11.   Overall, increased formalization is estimated to be behind about one third of tax revenue increases over 2020–22 (Table 2). Formalization efforts by the government, Kosovo's Agency of Statistics (KAS), and Customs have borne fruit, contributing around 35 percent of the cumulative change in tax revenues in 2020–22. Inflation, which contributed around 65 percent of the cumulative increase in revenues, reflected price pressures, such as commodity prices and wage increases. Tax base changes (including both inflation and changes in the real tax base) explained about 60 percent of the increase of tax revenues, with other factors playing a relatively minor role, as effective tax rates remained about constant, and the output gap at end-2022 is only slightly negative.

Table 2. Kosovo: Total Tax Revenue Change and Contributing Factors
(Millions of euro)

	2019	2020	2021	2022	Cumulative 2020-2022	
Total Tax Revenues (CIT, PIT, and VAT)						
Change in total tax revenues	63.5	-86.7	321.7	262.1	497.1	100%
Contribution factors						
Inflation	50.9	20.0	130.4	171.4	321.8	65%
Change in real demand	3.1	-19.2	22.0	6.1	8.9	2%
Buoyancy	9.0	-62.9	47.3	0.0	-15.5	-3%
Change in effective tax rate	0.6	-9.2	13.6	6.3	10.7	2%
Collection improvement, including formalization	0.1	-15.4	108.3	78.3	171.2	34%

Sources: Tax Administration Authority of Kosovo and IMF staff calculations.

D.   Conclusions and Stylized Policy Implications

12.   **Continued gains in formalization will require a multi-pronged approach.** Tax administration efforts by both TAK and Customs, in the form of audits, inspections, penalties and other measures, should be sustained and deepened. However, informality is a multidimensional challenge that requires to be tackled from different angles. This includes simplifying tax procedures, enhancing public governance and transparency to raise awareness and trust in public institutions, strengthening the education system, improving financial inclusion, increasing electronic payments, and improving the judicial system.