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VAT RATE INCREASES AND TAX CAPACITY: COMPARATIVE EVIDENCE FROM CENTRAL AND EASTERN EUROPE WITH EXTRA-EUROPEAN BENCHMARKS

Abstract

The article offers a comprehensive comparative assessment of standard value-added tax (VAT) rate increases over the past fifteen years and evaluates their direct effects on tax revenue potential across a diverse range of European and non-European economies. In contrast to traditional fiscal approaches that primarily focus on standard elasticity models, this study demonstrates that sustainable, long-term revenue growth is not ensured by a mechanical increase in the nominal tax rate. Instead, fiscal efficiency is achieved through the synergy of continuous transaction control (CTC) systems, the systematic reduction of inefficient tax reliefs, and improved corporate liquidity maintained through predictable, streamlined tax refund mechanisms.

The empirical analysis covers the diverse macroeconomic experiences of Central and Eastern European (CEE) countries, the United Kingdom, Japan, and New Zealand, highlighting the varying outcomes of their fiscal reforms. Based on these international benchmarks, the study concludes with a strategic set of priorities for the Republic of Kazakhstan. The author emphasizes that rationalizing existing tax exemptions and implementing advanced digitalization tools are mandatory prerequisites that must be fully realized before any potential rate hike is introduced, ensuring that future tax policy adjustments support broader economic stability and administrative transparency.

Keywords: VAT; tax revenue potential; VAT gap; VTTL; VAT Revenue Ratio (VRR); C-efficiency; e-invoicing.

INTRODUCTION

This study contributes along three dimensions. First, it assembles a comparable, policy-relevant panel of cases that brings together Central and Eastern European (CEE) countries with active continuous transaction control (CTC) implementation - Poland, Hungary, and Greece - and the United Kingdom as a benchmark of sustained administrative improvement under an unchanged 20% rate. Second, it incorporates non-European jurisdictions - New Zealand and Japan - that illustrate the importance of reform package design (rate increases combined with compensatory measures and a broad tax base) and behavioral responses (pre-emptive purchases and short-lived demand dips), as well as the role of reduced rates on socially significant goods. Third, it links VAT outcomes to the architecture of digital administration (e-invoicing, near-real-time invoice reporting, e-filing coverage, pre-filled returns, refund SLAs) and the payments environment (share of cashless transactions, uptake of digital payments), enabling an empirical disentangling of the contributions of "rate" versus "administration".

The objective of this study is to evaluate the impact of VAT rate increases on tax revenue performance and tax capacity across countries with different levels of administrative development, and to identify the conditions under which changes in statutory tax rates translate into sustainable improvements in tax collection. The study also aims to disentangle the relative contributions of tax policy (rate adjustments) and tax administration (digitalization, CTC systems, and compliance tools) to observed fiscal outcomes.

The scientific significance of the study lies in its integrated approach to analyzing VAT performance by combining tax policy variables with institutional and technological characteristics of tax administration. The paper contributes to the existing literature by providing a comparative cross-country assessment based on an event-study design and by operationalizing tax capacity through a set of complementary indicators, including the VAT gap, VRR (C-efficiency), and VAT-to-GDP ratio. By incorporating digitalization factors and behavioral responses, the study offers a more comprehensive framework for understanding the mechanisms through which tax reforms affect revenue outcomes.

LITERATURE REVIEW

Over the past decade and a half, increases in standard VAT/GST rates in advanced and transition economies have generally occurred against a backdrop of fiscal consolidation, inflationary shocks, and the accelerated digitalization of tax administration. Comparative OECD reviews indicate that the durability of consumption taxes' shares in total revenue and GDP is determined less by the nominal rate than by the effectiveness of base coverage and compliance, as captured by C-efficiency and the VAT Revenue Ratio (OECD, 2024). This shifts the focus from the rate level to the institutional design of VAT: the structure of reliefs and exemptions (the policy gap), the discipline of payment (the compliance gap), and the enforcement instruments employed.

The European Commission's annual "VAT Gap" report documents substantial cross-country variation and confirms that sustained reductions in the gap are achieved in jurisdictions that have implemented continuous transaction control (CTC) systems - electronic document exchange, real-time invoice reporting, and online fiscal cash registers (European Commission & Oxford Economics, 2024). Hungary offers an early example: the sequential expansion of real-time invoice reporting (RTIR) since 2018 coincided with a high standard rate, supporting revenue growth by shrinking the informal sector. In Poland and Greece, the transition to mandatory e-invoicing (KSeF, myDATA) has been catching up relative to earlier rate hikes, which allows analysts to disentangle the contributions of administrative improvements versus statutory rates to revenue dynamics.

The United Kingdom illustrates a different configuration: with a fixed 20% rate (since 2011), the period 2005–2024 exhibits a marked decline in the VAT gap attributable to administrative enhancements and targeted compliance measures by HMRC. This case serves as a benchmark showing that improved collection can deliver sustained growth in actual receipts without further rate increases.

Outside the EU, New Zealand's package-style approach is instructive: the 2010 GST rate hike was paired with reductions in personal income tax and targeted household compensation while preserving a broad base and system simplicity. Such a design mitigates regressivity via transfers rather than reduced rates and limits distortions in consumption structure. Japan's 2014 and 2019 episodes, by contrast, revealed pronounced behavioral responses (pre-emptive purchases, short-term demand contraction) and the role of a reduced rate on food, underscoring the need to account for the cyclical phase and price pass-through when assessing the "net" fiscal yield of a rate increase.

Recent publications in Comparative Economic Research (CER) reinforce the methodological and contextual foundations for comparative analysis. Postuła (2025) links the reform of European fiscal rules to expected consolidation and shifts in the structure of taxation on production and goods - the institutional setting in which governments more frequently contemplate VAT increases. Rutkowska (2024) examines the properties of inflation expectations among households and experts; differences in the degree of "anchoring" can amplify or dampen the short-term pass-through of tax shocks, which is crucial for interpreting CPI dynamics following a rate hike. At the sectoral level for the EU-27, Mileris (2023) identifies the determinants of price growth in services - a key component of the VAT base - thus helping to disentangle tax from non-tax drivers of inflation. In addition, Krajewski (2022) proposes a VAR/DSGE framework suitable for cross-country comparisons of the macroeffects of tax shocks (albeit focused on labor and capital taxes), while Krajewska (2021) highlights behavioral "switches" into self-employment and special regimes that, under a simple rate increase, can shift the base and erode the expected fiscal yield.

Synthesizing these sources yields four robust conclusions. First, a durable fiscal payoff from a rate increase arises primarily when policy and compliance gaps are reduced concurrently - through the expansion of the digital audit trail of transactions, pre-filled returns, faster and more predictable refunds, and a rationalization of reliefs. Second, the short-term price response is shaped by inflation expectations and consumption structure (notably the share of services), implying that identical rate hikes in countries with different "inflation architectures" produce heterogeneous paths for both CPI and real consumption. Third, compensatory measures (personal income tax cuts, targeted transfers) can preserve efficiency and equity without complicating VAT via multiple rates. Fourth, to identify the "net" rate effect in international comparisons, an explicit accounting framework is required that incorporates the timing of CTC reforms (continuous transaction controls), changes in the relief system, behavioral effects around the implementation date, and the state of the macroeconomic cycle.

Despite the extensiveness of research, a scientific polemic remains regarding the "pure" effect of tax shocks. Traditional econometric models often consider rate changes in isolation from the technological maturity of tax administrations. The research gap lies in the lack of a comprehensive accounting for the impact of CTC systems and the level of digitalization of the payment environment on the fiscal return of rate reforms.

Existing approaches emphasize the role of institutions, but they do not sufficiently explain why countries with identical rates demonstrate a gap in C-efficiency of more than twofold (e.g., Poland vs. New Zealand). This study fills this gap by integrating administrative digitalization indicators (refund timelines, e-invoicing coverage) into the analysis of fiscal outcomes.

METHODOLOGY AND METHODS

The study is designed as a comparative quasi-experiment (event study) focusing on episodes of increases in the standard VAT rate and/or substantial administrative reforms over the past ~15 years. For each country, a symmetric observation window of $t-2 \dots t+2$ is constructed around the reform year t . The principal cases are:

- Poland (rate increase from 22% to 23% in 2011; parallel anti-evasion measures including STIR and a voluntary split-payment mechanism, subsequently expanded),
- Hungary (rate increased to 27% in 2012; phased rollout of RTIR - real-time invoice reporting - from 2018),
- Greece (a sequence of rate hikes during 2010–2016; introduction of myDATA e-books in 2021),
- United Kingdom (VAT raised to 20% in 2011; Making Tax Digital for VAT launched in 2019/20).

Identification relies on comparing indicator dynamics before and after the reforms within harmonized $t-2 \dots t+2$ windows. This design enables estimation of the “average local effect” of the reform while acknowledging that the net impact of the VAT rate is intertwined with administrative changes and macroeconomic cycles.

Variables and Baseline Indicators

Three key metrics of VAT performance are employed:

1. VAT-to-GDP ratio - a macro-level budgetary outcome (VAT revenue as a share of GDP).
2. VAT gap (% of VTTL) - a top-down estimate of foregone revenue due to non-compliance, errors, and fraud, computed using the European Commission’s standard methodology. The VTTL (VAT Total Tax Liability) is constructed from supply–use tables and applicable rates, adjusted for input tax credits and non-deductibility.
3. VRR / C-efficiency - the ratio of actual collections to the theoretical potential of a “pure” VAT; this metric aggregates the effects of reliefs/exemptions and compliance. (Across the OECD, VRR $\approx$ 0.58 in 2022, implying that about 42% of the theoretical potential is not realized.)

RESULTS

1. Dynamics of the VAT gap within the $t-2 \dots t+2$ window (Poland, Hungary, Greece, United Kingdom)

A comparison of VAT-gap trajectories around episodes of rate increases and/or major administrative reforms shows a persistent compression of shortfalls over the two-year horizon following reform (Figure 1 and Table). In

Greece, the VAT gap declines from an upper-twenties percent level at $t-2$ to the mid-teens by $t+2$; in Hungary and Poland, the drop is substantially larger - on the order of one third to one half of the initial gap. In the United Kingdom, the reduction is moderate, consistent with a lower starting level and HMRC’s long-run downward trend (see also the estimate of 4.9% of VTTL in 2022/23 and the multi-year decline from 13.7% in 2008/09) (OECD, 2024, pp. 58–66). VTTL (VAT Total Tax Liability) represents theoretical VAT revenue under full compliance and taxation of all final consumption at the standard rate.

Table 1. Comparative Trajectories of the VAT Gap (% of VTTL) for Greece, Hungary, Poland, and the United Kingdom ($t-2$ to $t+2$)

Period	Greece	Hungary	Poland	United Kingdom
1 = $t-2$	25.6	14.2	20.3	8.1
2 = $t-1$	23.4	14.3	15.7	6.8
3 = t	19.7	10.2	13.2	8.2
4 = $t+1$	14	9.8	12.7	5.5
5 = $t+2$	13.7	5.1	11.3	5.9

Note: t = year of VAT reform; $t-2$ and $t+2$ represent two years before and after the reform, respectively.

Source: own elaboration based on OECD, 2024.

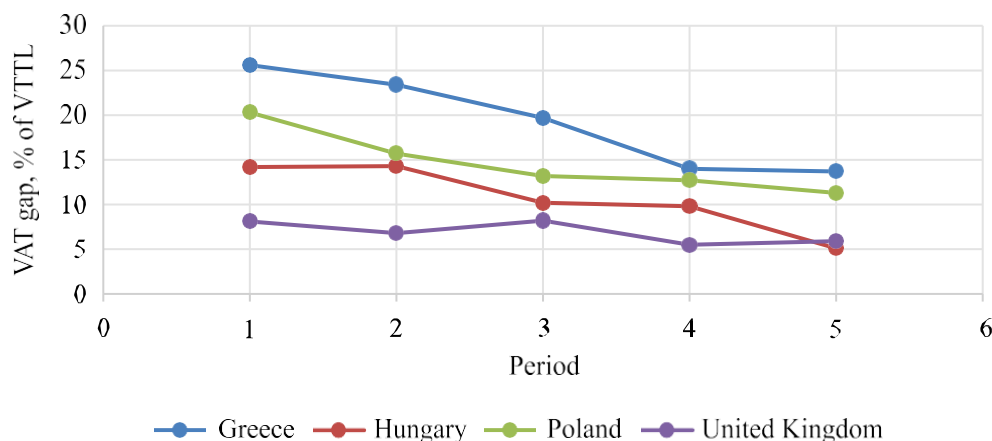


Figure 1 VAT Gap Dynamics (% of VTTL) Around the Reform Year (t-2 to t+2)

Source: own elaboration based on OECD, 2024.

The interpretation aligns with EU-wide assessments: on the eve of the energy shock, the average VAT gap in the European Union had already fallen to 5.3% of VTTL (2021), while cross-country dispersion remained substantial (with the highest values in Romania, Malta, and Greece) (OECD, 2024, pp. 64–70).

Analysis shows that in Poland and Hungary, the implementation of RTIR and JPK_VAT allowed for a reduction in the VAT gap by one-third within two years after the reform, effectively offsetting potential negative effects from price increases.

2. Collection Efficiency (VRR/C-efficiency) and the Fiscal Role of VAT

A panel “snapshot” (Table 1) indicates that differences in VRR account for most of the cross-country variation in VAT receipts. On average across the OECD in 2022, the share of consumption taxes in GDP reached historical highs; however, several countries with “mid-range” VRR continue to forgo a sizable portion of their theoretical potential due to reliefs and non-compliance (OECD, 2024, Foreword; Annex 1.A).

A caveat to the table is that for Japan, New Zealand, and Kazakhstan, official VAT-gap statistics are not regularly published. Consequently, we draw on alternative analytical sources to provide approximate indications of this measure. The World Bank’s Public Finance Review reports projected tax gaps - including for VAT: the domestic VAT gap $\approx$ 70.6%, the “customs” VAT gap $\approx$ 22%, the combined VAT gap $\approx$ 52.6%, and the CIT gap $\approx$ 60.9% (slide “Projected tax gap (percentage)”). These are research projections rather than official gap statistics (World Bank, 2023). Approximate figures for Japan are taken from a macroeconomic study by Peter Morrow, Michael Smart, and Artur Swistak, which estimates domestic VAT gaps using national accounts and import data; for Japan (as well as for New Zealand/Northern Europe/Australia), the resulting gaps are “small and statistically insignificant.” While not an official GST/VAT-gap report, this represents a recognised academic methodology. Likewise, New Zealand’s IRD does not publish annual comprehensive GST-gap figures; earlier literature (Morrow et al., 2022) offers broader shadow-economy-based estimates of the overall “tax gap” (e.g., roughly 6.4–10.2% of total tax liability for New Zealand in 1968–1994, not specific to GST).

Projected tax gap (percentage, %), WB, 2023

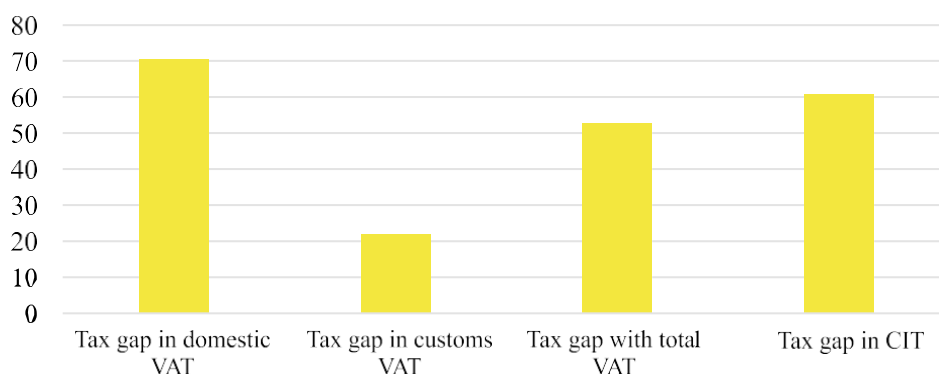


Figure 2. Projected tax gap (percentage, %)

Source: World Bank, 2023

The comparisons presented indicate that cross-country differences in the fiscal yield of VAT are driven far more by coverage and compliance efficiency (VRR/C-efficiency) than by nominal rates. At the “benchmark” end of the spectrum is New Zealand (VRR $\approx$ 0.96), where a moderate rate delivers near-complete extraction of theoretical potential and a high VAT share in GDP ($\approx$ 10%), signalling a broad tax base and minimal leakages. Japan exhibits a high – though lower than New Zealand – level of efficiency (VRR $\approx$ 0.72) alongside a moderate VAT-to-GDP ratio ($\approx$ 7.2%), consistent with the presence of reduced rates and compensatory measures that partially “soften” the net fiscal effect.

Table 2. Efficiency and Fiscal Outcomes

Country	VRR (latest,	C-efficiency (latest, proxy=VRR	VAT revenue (% of GDP, latest)	VAT-to-Consumption (VAT/HH Final Cons.)	VAT Gap (% of VTTL, latest)
Poland	0.46	0.46	7.3	9.6	8.4% (2022, EC VAT Gap 2024)
Hungary	0.62	0.62	10	14.3	2.3% (2022, EC VAT Gap 2024)
Greece	0.47	0.47	9	10.1	13.7% (2022, EC VAT Gap 2024)
United Kingdom	0.49	0.49	6.7	8.9	5.0% (2023/24, HMRC)
Japan	0.72	0.72	7.2	6.7	N/A
New Zealand	0.96	0.96	10	12.6	N/A
Kazakhstan	0.61	0.61	4.75	8.3	52.6

Source: Author’s calculations based on OECD (2024); European Commission (2024); HMRC (2024). For non-EU VAT gaps, used reports of IMF and World Bank.

For the United Kingdom, a stable 20% rate has been accompanied by a multi-year decline in the VAT gap according to HMRC data, corroborating the role of administrative improvements and digitalization in raising actual receipts without changing the statutory rate (OECD, 2024, p. 58).

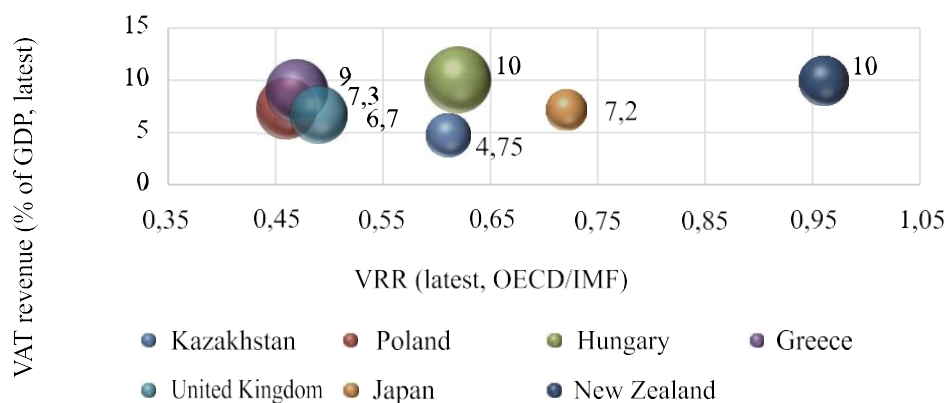


Figure 3. VAT Revenue (% of GDP) vs. VAT Revenue Ratio (VRR): Selected Countries, Latest Year

Source: own elaboration based on OESD/IMF.

Special attention should be paid to the correlation between VAT refund speed and compliance. In New Zealand (VRR $\approx$ 0.96), the refund period is 23 days, which minimizes business cash gaps and stimulates formalization. Conversely, in Greece and Kazakhstan, long lead times (75 days) create a hidden tax burden that devalues the effect of any administrative simplifications.

3. The Role of Administrative Digitalization

Cross-country differences in the pace of gap compression correlate with the adoption of CTC instruments (electronic invoicing and (near) real-time transaction reporting) and improvements in risk management. The

OECD notes that digital reporting and effective audits materially contribute to lowering the VAT gap by enabling access to data “almost in real time” and strengthening analytical capabilities (OECD, 2024, §2.8.1; §2.8.3).

The institutional evidence presented here confirms that the level of VAT-administration digitalization differs substantially across countries and correlates with both compliance quality and the system’s “friendliness” toward compliant taxpayers. Hungary (RTIR since 2018, full coverage by 2021) and Poland (KSeF slated for 2026; effectively 100% e-filing via JPK/SAF-T) exhibit the most advanced models of transaction control in near-real-time; the United Kingdom brought all taxpayers into Making Tax Digital by 2022, focusing on digital records and end-to-end connectivity. Greece has advanced through the myDATA platform (electronic “books”), but its average refund time remains higher (≈ 75 days) than that of the leaders. Outside the EU, Japan introduced the Qualified Invoice System in October 2023, although return pre-filing services remain limited; New Zealand combines high levels of electronic services with one of the shortest refund times (≈ 23 days for compliant filers). Kazakhstan mandates electronic invoices and has near-universal e-filing coverage, yet is characterized by long refund lead times (≈ 75 days) and the absence of pre-filled returns.

Table 3. Digitalisation of VAT Administration: e-Invoicing, e-Filing, Refunds, and Prefilling

Country	e-invoicing status / year (B2B)	e-filing coverage (% returns)	Average VAT refund time (days)	Pre-filled VAT returns (Y/N/Share)
Poland	KSeF mandatory: large 2026-02-01; rest 2026-04-01	$\approx 100\%$ (JPK/SAF-T since 2016)	40 (target with KSeF rollout)	Limited; KSeF enables structured e-invoices, not full prefill initially
Hungary	RTIR real-time invoice reporting: 2018→2021 full scope	High (NAV online)	40 days (expedited for compliant; indicative)	Partial prefill via NAV Online
Greece	myDATA e-books platform phased from 2021; e-invoices via providers	High (myDATA coverage broad)	75 days; priority refunds mechanisms exist	Partial (myDATA)
United Kingdom	Making Tax Digital for VAT since 2019 (digital records/links)	Broad coverage (MTD phased to all VAT-registered by 2022)	30 days	No; MTD supports digital records but not prefill
Japan	Qualified Invoice System since 2023-10-01	High digital adoption, QI System since Oct 2023	40 days (tax authority SLA/annual reports)	No (limited)
New Zealand	Peppol: central govt must receive e-invoices since Mar 2022; rollout by 2026	Very high; IRD e-services; Peppol in public sector	23 days for compliant filers	Partial prefill for some taxpayers via IRD data (limited)
Kazakhstan	ЭЦФ (electronic invoices) mandatory for VAT payers since 2017	$\approx 100\%$	75 (tax authority SLA/annual reports)	No

Source: Author’s compilation based on: OECD (2023), *Tax Administration Series* (n.d.); Poland MoF/KAS (2025); KSeF mandate communications & JPK guidance (n.d.); NAV (2018–2024), *Online Számmla/RTIR*; AADE/gov.gr (2021–2024), *myDATA guidance*; HMRC (2019–2025), *Making Tax Digital and VAT repayments service standards*; Japan NTA (2023–2025), *Qualified Invoice System*; MBIE/IRD NZ (2022–2025), *e-Invoicing (Peppol) and refunds*; Kazakhstan (State Revenue Committee, 2017–2025), *ESF/e-invoicing and VAT refunds*. Refund timelines indicate service standards or typical processing times; «expedited/priority» applies to compliant/priority claims; «prefill» refers to availability of pre-population features.

Comparable conclusions are presented in the Tax Administration 2023 series: there is no universal “standard” of tax administration; however, the fastest progress is observed in jurisdictions where digitalization is embedded in day-to-day processes and leverages FTA/ISORA technological initiatives (OECD, 2023, pp. 15–23).

4. Outside the EU: New Zealand and Japan

In countries without comparable official VAT-gap estimates - New Zealand and Japan - the effect of rate increases is assessed via VRR and VAT-to-GDP (Table 3).

New Zealand exhibits a very high VRR at a 15% GST rate and a stable VAT share in GDP, consistent with the “package” reform of 2010 and broad adoption of digital payments/administration. The 2010 GST hike (12.5→15%), accompanied by compensatory measures, was embedded in an already “clean” system with a broad base and high

compliance. $VRR \approx 0.96$ and $VAT\text{-to-GDP} \approx 10.0\%$ indicate that the rate increase operated within a framework of minimal leakages. The package design (personal income tax cuts and indexed transfers) smoothed the price spike and supported the consumption base - reflected in a persistently high VAT share in GDP after the reform. In regimes with very high VRR, the additional "revenue" effect of a rate hike is closer to proportional (because leakages are limited), though the risk of a short-run CPI impulse rises - mitigated by the package architecture.

Japan increased its consumption tax from 5% to 8% in 2014 and from 8% to 10% in 2019, introducing a reduced rate on food. With a VRR of about 0.72 and VAT-to-GDP near 7.2%, efficiency is relatively high but below New Zealand's, reflecting reduced rates, exemptions, and behavioral responses. Tax hikes triggered pre-emptive purchases and short-term consumption declines, temporarily distorting revenues. The introduction of the Qualified Invoice System (e-invoicing) is expected to improve administration and support more stable revenue growth in subsequent years. Overall, in multi-rate systems, part of the rate effect is offset by relief measures and behavioral reactions, while stronger administration enhances long-term efficiency.

5. Digital Payments and Transaction "Transparency"

Consistent with the hypothesis that a more "transparent" payments environment strengthens compliance, trends in the use of digital payments (Findex 2025) support the interpretation that greater digital turnover facilitates administration and narrows opportunities for evasion. In 2024, in low- and middle-income countries, the share of adults who made or received at least one digital payment reached 62% (nearly double the 2014 level), and among account holders it reached 82% (World Bank, 2025, pp. 167–168).

Table 4. VAT Registration Thresholds and Cashless Payment Penetration (Latest Available Year)

Country	Registration threshold (local currency)	Share of cashless retail payments (BIS Red Book, latest)
Poland	PLN 200,000 turnover (small VAT taxpayer)	$\approx 65\%$ cashless share of retail payments (2023)
Hungary	HUF 12,000,000 (small taxpayers regime; to confirm)	TBD (BIS CPMI Red Book country dataset)
Greece	EUR 10,000 (small supplier threshold; to confirm)	$\approx 38\%$ cashless at POS (ECB 2022 $\approx$ cash 62%)
United Kingdom	GBP 90,000 (from Apr 2024)	$\approx 88\%$ cashless (cash 12% in 2023)
Japan	JPY 10,000,000 prior-year taxable sales (general threshold)	42.8% (2024)
New Zealand	NZD 60,000 per 12 months	proxy: cards preferred 67% of respondents, 2024
Kazakhstan	KZT 78,640,000 per 12 months, from 2026-01-01: KZT 41,5 mln. tenge	85.8% (2024)

Source: Author's compilation based on OECD (Consumption Tax Trends 2024; country VAT guidance), BIS CPMI Red Book, ECB/SPACE, UK Finance, METI/Japan, RBNZ/MBIE, National Bank of Kazakhstan.

This trend reflects the OECD's view that post-pandemic digitalization has helped reduce VAT gaps. Higher VAT thresholds narrow the pool of small taxpayers and shift enforcement toward larger firms, while widespread cashless payments increase transparency and reduce evasion.

The United Kingdom and Kazakhstan combine high thresholds with very high cashless shares, easing pressure on micro-businesses and supporting digital compliance. Greece, by contrast, has a low threshold and limited cashless use, leading to broader coverage but higher monitoring costs and greater cash-related risks. Japan shows effective targeting with a high threshold but still has room to improve via further digitalization, while Poland occupies a mid-range position with potential gains from expanding e-invoicing.

Overall, the most effective VAT collection occurs where moderate thresholds are paired with a highly cashless economy, strengthening compliance without overburdening administration.

The data confirm the hypothesis that transaction "transparency" is the foundation for rate increases. In the UK and Kazakhstan, a high share of cashless payments ($>85\%$) creates a digital base allowing for risk-oriented monitoring unavailable in economies dominated by cash.

6. Comparative Cross-Country Conclusion

In jurisdictions where rate increases were paired with the introduction of CTC/e-invoicing and service enhancements (pre-filled returns, faster refunds), the VAT gap contracted substantially and durably (Hungary, Poland; later but noticeably also Greece). This pattern is broadly consistent with OECD cross-country findings on the role of digitalization in reducing shortfalls (OECD, 2024).

In countries with a stable statutory rate and steady administrative improvements (the United Kingdom), VAT revenue growth has been driven by a declining VAT gap, without additional rate hikes (OECD, 2024).

In systems with very high VRR (New Zealand), rate increases translate into outcomes closer to proportional revenue gains, whereas in multi-rate systems with compensatory measures (Japan) results are more “saw-toothed” owing to behavioral effects and the design of reliefs.

At the OECD level, differences in C-efficiency/VRR and institutional architecture explain VAT revenues to a greater extent than nominal rates themselves (OECD, 2024, Foreword; Annex 1.A), corroborating the study’s core hypothesis on the primacy of base efficiency and compliance.

DISCUSSION

Empirical VAT-gap trends over the $t-2...t+2$ period confirm that tax base breadth and compliance efficiency matter more than the nominal rate. Where rate increases were paired with digital tools (e-invoicing, real-time reporting, pre-filled returns), VAT gaps declined and revenues rose (Hungary, Poland, the United Kingdom; more moderately Greece). Outside the EU, New Zealand shows near-proportional gains due to very high VRR, while Japan’s multi-rate system dampens short-term effects due to reliefs and behavioral responses. Overall, rate hikes alone rarely ensure sustainable gains without reducing policy and compliance gaps.

Key drivers of VAT efficiency:

- Digitalization (e-invoicing, real-time reporting) → higher transparency and compliance
- Improved taxpayer services (pre-filled returns, fast refunds) → better liquidity and voluntary compliance
- Cashless payments → lower evasion and administrative costs

Limitations: Results may reflect overlapping reforms (digitalization, tax changes, inflation). For New Zealand and Japan, proxy indicators (VRR, VAT-to-GDP) are used instead of direct VAT-gap data.

Policy implications

European Union:

Rate increases are justified only under “mature” systems (high VRR $\geq 0.65-0.70$, strong digital coverage, stable refunds, limited exemptions). Otherwise, priority should be digital reforms (CTC/ViDA), faster refunds, and replacing reduced rates with targeted social support.

Kazakhstan:

With a 12% VAT rate and existing e-invoicing, the priority is efficiency, not rate hikes:

Expand digital controls and risk-based audits

Reduce exemptions with targeted transfers

Regulate platform economy and e-commerce

A rate increase should come only after measurable VRR growth and stable administration.

Poland:

A strong compliance case with a shrinking VAT gap. Focus should be on:

- Successful rollout of mandatory KSeF (2026)
- Faster refunds via risk-based systems
- Reducing exemptions

Further rate increases are unnecessary; efficiency gains remain the main lever.

CONCLUSION

In conclusion, the comparative analysis indicates that durable increases in VAT revenue potential arise primarily where rate hikes are embedded in a “mature” institutional environment: high collection efficiency (VRR), deployed CTC instruments (e-invoicing/near-real-time reporting), predictable refund timelines, and a reduced policy gap. Under such conditions (e.g., Hungary; with a lag - Poland and Greece), the VAT gap narrows markedly and persistently; where the rate is held constant but administration improves consistently (the United Kingdom), revenue performance strengthens without further rate increases. In systems with very high VRR (New Zealand), the revenue response to a rate increase is close to proportional, whereas in economies with multi-rate structures and compensatory measures (Japan) the short-run effect is partially offset by behavioral responses.

For the European Union, the overarching priority is to complete the digital agenda (ViDA/CTC), rationalize reliefs, and accelerate refunds. For Poland, the main source of additional gains lies in high-quality KSeF implementation and targeted optimization of reliefs, rather than in further rate increases. For Kazakhstan, the implication is unambiguous: the first steps should strengthen compliance and base transparency (CTC, pre-filled returns, expedited refunds, rationalized reliefs), while any discussion of a rate increase becomes appropriate only after measurable VRR gains and a stabilized price environment.

Directions for future research. Further research may extend the present analysis along several dimensions. First, expanding the empirical base to include a broader set of emerging and developing economies would allow testing the robustness of the “efficiency-first, rate-second” sequencing under different institutional conditions. Second, future studies could apply micro-level data (firm-level VAT reporting, sectoral compliance patterns) to

better capture heterogeneous behavioral responses to VAT rate changes and digital compliance tools. Third, a promising avenue lies in assessing the long-term effects of digital tax administration (CTC, e-invoicing, pre-filled returns) on tax morale, voluntary compliance, and the shadow economy. Fourth, incorporating dynamic macroeconomic factors—such as inflation expectations, consumption elasticity, and income distribution effects—would deepen understanding of the transmission mechanisms between tax policy and revenue outcomes. Finally, for Kazakhstan, further research could focus on evaluating the impact of ongoing digitalization reforms, including the development of the digital tenge, on VAT efficiency, tax transparency, and regional tax capacity formation.

The results of the study suggest that under conditions of low administrative efficiency ($VRR < 0.60$), a VAT rate increase will lead not to revenue growth, but to the expansion of the shadow sector and an inflationary shock. For Kazakhstan, transitioning to pre-filled returns and reducing refund times to OECD averages (30–40 days) is a prerogative for fiscal sustainability before any rate hike.

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ПОВЫШЕНИЕ СТАВОК НДС И НАЛОГОВЫЙ ПОТЕНЦИАЛ: СРАВНИТЕЛЬНЫЕ ДАННЫЕ ПО ЦЕНТРАЛЬНОЙ И ВОСТОЧНОЙ ЕВРОПЕ С ВНЕШНЕЕВРОПЕЙСКИМИ ОРИЕНТИРАМИ

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Аннотация

В статье представлена комплексная сравнительная оценка повышения стандартных ставок налога на добавленную стоимость (НДС) за последние пятнадцать лет, а также анализируется их прямое влияние на налоговый потенциал различных европейских и неевропейских стран. В отличие от традиционных фискальных подходов, сфокусированных преимущественно на стандартных моделях эластичности, данное исследование доказывает, что устойчивый долгосрочный рост доходов не обеспечивается механическим увеличением номинальной налоговой ставки. Напротив, фискальная эффективность достигается за счет синергии систем непрерывного контроля транзакций (СТС), систематического сокращения неэффективных налоговых льгот и повышения ликвидности корпоративного сектора благодаря предсказуемым и оптимизированным механизмам возврата налога.

Эмпирический анализ охватывает разнообразный макроэкономический опыт стран Центральной и Восточной Европы (ЦВЕ), Великобритании, Японии и Новой Зеландии, подчеркивая различные результаты их фискальных реформ. На основе этих международных ориентиров в исследовании сформулирован комплекс стратегических приоритетов для Республики Казахстан. Автор подчеркивает, что рационализация существующих налоговых льгот и внедрение передовых инструментов цифровизации являются обязательными предварительными условиями, которые необходимо полностью реализовать до введения любого потенциального повышения ставки. Это позволит гарантировать, что будущие корректировки налоговой политики поддержат общую экономическую стабильность и административную прозрачность.

Ключевые слова: НДС; потенциал налоговых поступлений; разница в НДС; VTTL; Коэффициент поступления НДС (VRR); С-эффективность; электронное выставление счетов.

**ҚҚС СТАВКАЛАРЫН КӨТЕРУ ЖӘНЕ САЛЫҚТЫҚ ПОТЕНЦИАЛ:
ОРТАЛЫҚ ЖӘНЕ ШЫҒЫС ЕУРОПА ЕЛДЕРІНДЕГІ САЛЫСТЫРМАЛЫ ДЕРЕКТЕР
МЕН ЕУРОПАҒА ЕНБЕЙТІН ЕЛДЕР БОЙЫНША САЛЫСТЫРУ****Байғазина Д.***

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Аңдатпа

Мақалада соңғы он бес жылдағы қосылған құн салығының (ҚҚС) стандартты мөлшерлемелерін арттыруға кешенді салыстырмалы бағалау жүргізіліп, олардың еуропалық және еуропалық емес бірқатар елдердің салықтық әлеуетіне тигізетін тікелей әсері талданады. Негізінен стандартты серпінділік модельдеріне бағытталған дәстүрлі фискалдық тәсілдерге қарағанда, бұл зерттеу кірістердің тұрақты әрі ұзақ мерзімді өсімі номиналды салық мөлшерлемесін механикалық түрде өсіру арқылы қамтамасыз етілмейтінін дәлелдейді. Керісінше, фискалдық тиімділікке транзакцияларды үздіксіз бақылау (СТС) жүйелерінің синергиясы, тиімсіз салықтық жеңілдіктерді жүйелі түрде қысқарту және салықты қайтарудың болжамды әрі оңтайландырылған тетіктері арқылы корпоративтік сектордың өтімділігін арттыру есебінен қол жеткізіледі. Эмпирикалық талдау Орталық және Шығыс Еуропа (ОШЕ) елдерінің, Ұлыбританияның, Жапонияның және Жаңа Зеландияның әртүрлі макроэкономикалық тәжірибесін қамтып, олардың фискалдық реформаларының әртүрлі нәтижелерін көрсетеді. Осы халықаралық тәжірибелер негізінде зерттеуде Қазақстан Республикасы үшін стратегиялық басымдықтар жиынтығы тұжырымдалған. Автор қолданыстағы салықтық жеңілдіктерді оңтайландыру және озық цифрландыру құралдарын енгізу – кез келген ықтимал мөлшерлеме өсіміне дейін толықтай жүзеге асырылуы тиіс міндетті алғышарттар екенін баса айтады. Бұл болашақтағы салық саясатының өзгерістері жалпы экономикалық тұрақтылық пен әкімшілік ашықтықты қолдауын қамтамасыз етеді.

Түйін сөздер: ҚҚС; салық түсімдерінің әлеуеті; ҚҚС алшақтығы; VTTL; ҚҚС Түсімдерінің Коэффициенті (VRR); С-тиімділік; электрондық шот-фактура.