## Online Annex 1.1. The Long-Run Payoff of Tax Administration Reforms[1]

In recent years low-income developing countries (LIDCs) have made limited progress in ramping up tax capacity needed to achieve the Sustainable Development Goals and manage debt burdens. Despite multiple waves of tax reforms, progress has been sluggish in mobilizing revenues. This annex focuses on one particular aspect, namely the introduction of large taxpayer units, and studies their impact on tax collection across emerging and developing economies (EMDEs).

The Spread of Large Taxpayer Units

Starting in the mid-1990s, many emerging market and developing economies (EMDEs) transformed the structure of their tax administration, often in the context of IMF-supported programs, to secure tax revenue streams and improve taxpayer service (Dom and Miller, 2018). In many countries, Large Taxpayer Units (LTUs) were established, tasked with monitoring, and maintaining relationships with large businesses and, in some cases, high-net-worth individuals (Dom et al. 2022). By 2019, more than 100 low-income developing and emerging economies had introduced a LTU at the national or local level. Adoption waves started in Latin America and Sub-Saharan Africa, following elsewhere later on (Online Appendix Figure 1.1.1.). Based on IMF's ISORA database, the median LTU country in 2019 had 83 full-time employees in their unit, more than half of which with an auditing role, overseeing about 700 taxpayers and more than 60 percent of the net revenues collected by the tax administration.

Online Annex Figure 1.1.1. Large Taxpayer Unit Diffusion by Area
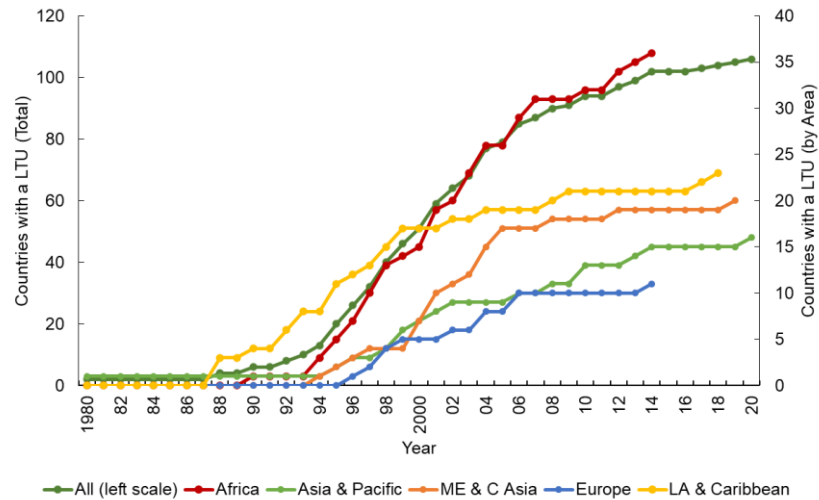
Source: Bachas et al. (2019), Bachas et al. (2022), ISORA (2021), IMF country desk data and staff calculations.

The establishment of a LTU can help raise tax revenues by increasing staff-to-taxpayer ratios among taxpayers with high tax revenue potential, ensuring timely collection, limiting the risk of litigation, simplifying registration, filing, and payment procedures, raising the perceived risk of audit, and thus encouraging voluntary tax compliance. In addition, LTUs often worked as the breaking ground for further reforms, providing the administrative infrastructure to support taxpayer registration campaigns, self-assessment procedures, electronic filing, and the introduction of the VAT (Baer et al. 2002, McCarten, 2004). Yet, partial reforms conflicting with existing administrative structures, a reduced administrative focus on micro- to medium businesses, firm behavioral responses and productivity costs due to the resulting size-dependent nature of tax enforcement might all reduce the collection benefit of introducing a LTU in countries with relatively weak administrations (Almunia and Lopez-Rodriguez,

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[1] Prepared by *Enrico Di Gregorio*.

2018, Bachas et al. 2019, Basri et al. 2021).[2] As a result, cross-country evidence on the tax collection gains from featuring a LTU within the tax administration has thus far been mixed, including both small but positive and null effects (Ebrill et al. 2001, Ebeke et al. 2016, Baum et al. 2017, Chang et al. 2020, Adan et al. 2022).

Event Study: Methodology and Data

Fiscal and economic data is drawn from the recently published cross-country database on tax collection underlying Bachas et al. (2022) and augmented with information on the effective year of LTU introduction from Bachas et al. (2019), the IMF's ISORA database, and IMF country desks surveyed in the fall of 2022. The analysis focuses only on EMDEs which established a LTU in the two decades surrounding the Great Financial Crisis (1997–2018), before the Covid-19 pandemic. Including only countries which adopted a LTU in this time frame has two potential advantages for the identification of LTU collection effects.[3] First, it prevents potentially unsuitable comparisons with countries that would never adopt a LTU within the sample period, which might be on unique fiscal and institutional trajectories. Second, it zooms in on a rapid phase of LTU diffusion which was conspicuously driven by international tax policy advice and cross-country imitation, thus mitigating to some extent the concern that the decision to reform and the exact adoption year are endogenous to local tax collection trends and their unmeasured determinants. This yields a final sample of 75 EMDEs for which a LTU establishment event can be identified in the sample period.[4]

The analysis is based on an event-study around the year of the LTU establishment. All included countries ultimately adopt a LTU. The structure of the analysis informs on the time dynamic of tax collection in LTU adopters before and after the LTU establishment relative to countries which have yet to reform their administration. The analysis estimates country-year-level panel regressions that take the following form:

$$\left(\frac{T}{Y}\right)_{c,t} = \alpha_c + \gamma_t + \sum_{r=-k}^{+k'} \beta_r \cdot I(R_{c,t} = r) + \delta \cdot X_{c,t} + \varepsilon_{c,t}, \qquad (1)$$

where $\left(\frac{T}{Y}\right)_{c,t}$ is the ratio of collected tax revenues to nominal GDP in country c and year t, multiplied by 100; α_c and γ_t are country and year fixed effects; $X_{c,t}$ is a vector of time-varying, country-specific controls; and $\varepsilon_{c,t}$ is an idiosyncratic error term.[5] $R_{c,t}$ measures the relative time distance of year t in

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[2] Taxpayer inclusion in a LTU usually depends on the size of turnover, profit, or workforce at the firm. When inclusion criteria depend on fixed and known thresholds on a margin that taxpayers can affect, the benefit of better enforcement among included taxpayers can be at least partially outweighed by the cost of underreporting among those who try to fall outside of the criteria.

[3] The first version of the database extends to 2018. In addition, starting the sample period in the second half of the 1990s allows for a more homogeneous and uninterrupted coverage of transition and post-Soviet economies.

[4] Specifically, Sub-Saharan Africa contributes 29 countries, Asian and the Pacific 12, Middle East and Central Asia 15, Europe 9, and Latin America and the Caribbean 10. 56 percent of these countries are emerging economies, and the rest consists of low-income developing countries.

[5] The vector of controls is meant to capture the possible effect of structural and cyclical economic conditions on tax collection. Controls include the logarithm of GDP per capita, the share of trade in nominal GDP, the share of employment in agriculture, the share of value added in the corporate sector, the ratio of unemployment to the labor force, the net flow of FDI as a percentage of GDP, and the dichotomous index of democracy developed by Boix, Miller and Rosato. Results without controls are qualitatively similar to those obtained including these controls, and in some cases their point estimates are larger.

country c from the effective year of LTU introduction, with positive values indicating post-reform years.[6] The coefficients of interest are marked with β_r and capture the relative difference in tax-to-GDP ratios at each reform year r across countries with a LTU and those yet-to-be reformed. By convention, omitting the indicator for the last year before the reform, all β_r coefficients are interpreted relative to the last year without a LTU in order to facilitate pre- vs. post-reform comparisons. Lastly, standard errors are clustered at the country level, that is the level of treatment, as suggested by Bertrand et al. (2004).

The Tax Collection Benefits of LTU Establishments

Online Annex Figure 1.1.2 displays the pattern of the main coefficients. Considering over twenty years of reform events, on average, EMDEs instituting a LTU are observed to gradually increase their total tax-to-GDP ratio from 0.5 percent of GDP in the first year of reform to a maximum of 3.6 percent of GDP after almost two decades of LTU operations relative to countries with later reforms (top-left panel). Considering the mean outcome in years before each country's reform, the maximum estimated effect corresponds to a 20 percent increase in the tax-to-GDP ratio. However, confidence intervals are large and rise in size along with point estimates over the relative reform period, reflecting the increasing uncertainty associated with extrapolating information from fewer LTU events at later treatment dates.

Online Annex Figure 1.1.2. Estimated Large Taxpayer Unit Effect on Tax Take
(Percent of GDP, axis scales differ by panel)
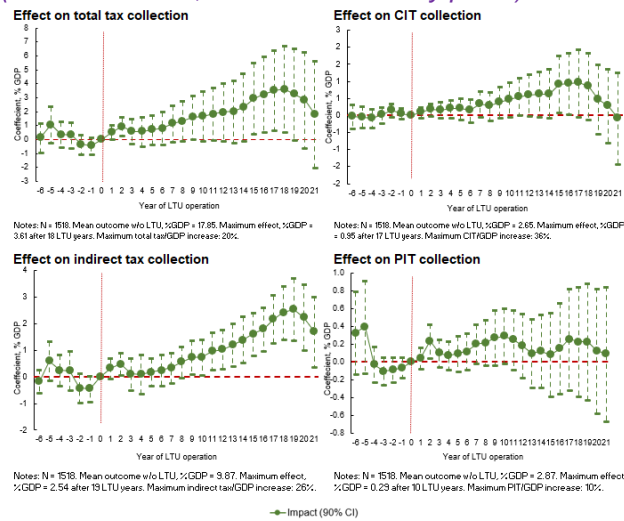
Source: Bachas et al. (2019), Bachas et al. (2022), IMF country data and staff calculations.
Note: The event-study focuses on 75 non-advanced economies introducing a LTU between 1997 and 2018. The last year before the LTU establishment is marked with a vertical red line.

The data allows for a decomposition of the total tax effect into that on key tax bases.[7] By improving monitoring and administrative relations with large businesses, a LTU might raise the collection of taxes usually associated with the income and value added produced by firms, such as corporate income taxes (CIT) and indirect taxes, as well as the reporting of taxes withheld or remitted by firms as third parties, such as personal income taxes of their employees. The remaining panels of Online Annex Figure 1.1.2 replicate the event-study estimation for each of these taxes. The overall tax collection effect is mostly driven by the concurrent increase in CIT and indirect tax revenues, with both coefficient size and significance growing with LTU experience (top-right and bottom-left panel). This is consistent with the early country survey in Ebrill et al. (2001), which noted that VAT collection efforts seemed more successful in the presence of a LTU. On the other hand, no significant effect pattern emerges in the case

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[6] Equation (1) is estimated with k such that the two earliest pre-reform years are not assigned an indicator, allowing for the joint identification of year fixed effects and relative reform year effects in a fully dynamic model without never-treated units (Borusyak et al. 2021). All other available relative reform year effects are estimated, except in the reference year just before each LTU reform, but only a few pre-reform coefficients are plotted in Online Annex Figure 1.1.2 for ease of representation.

[7] Total taxes include corporate income, personal income, indirect, wealth and property taxes, as well as social security or payroll contributions and other minor taxes. Indirect taxes include both consumption and production taxes, such as sales taxes, VAT, tariffs and trade taxes and excises (Bachas et al. 2022).

of personal income taxes (bottom-right panel). Given the risk that LTUs might draw away administrative resources from non-corporate taxpayers, the analysis suggests that LTUs in EMDEs might have had, on average, only limited cost in terms of personal income tax collection.[8] These results highlight the value of improving tax administration in the long run, especially given the constraints on raising tax rates due to global tax competition (Bachas et al. 2022). They also provide a possible explanation for the mixed evidence on the effectiveness of LTUs in the literature: the larger collection benefits of better monitoring and servicing corporate taxpayers seem to materialize over longer stretches of time, albeit with considerable variability in gain size.

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[8] Performing heterogeneity analysis in an event-study setting can be problematic when sample size and the number of events is limited, so results are reported for the full sample only. For reference, estimation with restricted samples suggest that LTU gains are concentrated in emerging markets and countries with less than 40 million inhabitants, but stable CIT gains appear in large countries, too. LTUs established after the Great Financial Crisis are associated with relatively faster gains. Gains in the CIT are observed across most surveyed regions, while indirect tax gains are especially pronounced in Latin America.

Online Annex 1.2. Fiscal Consolidations During Times of High versus Low Inflation[1]

This annex explains the methodology to estimate the impact of fiscal consolidation on fiscal outcomes depending on the level of inflation used for Figure 1.14 in the main text. Panel local projection methods are used to estimate the dynamic impact of fiscal consolidation events on fiscal aggregates. Local projection estimations (Jordà, 2015) are applied to an unbalanced panel of 25 advanced and emerging market economies from 1985 to 2016. We follow the empirical specification of Carriere-Swallow et al (2018), with a key difference as our focus is on analyzing state-dependence arising from inflation. In particular, the following two-way (country and year) fixed effect specification is estimated as follows:

$$Ln(Y_{i,t+h}) - Ln(Y_{i,t-1}) = \alpha_i^h + \tau_t^h + \beta^h FC_{it} + D(\gamma^h Inflation_{it} + \lambda^h FC_{it} * Inflation_{it}) + \sum_{p=0}^{P} \delta_p^h X_{i,t-p} + \varepsilon_{i,t+h}$$

where y_{t+h} denotes the outcome variable for forecast horizons h taking values -1 up to 4 years ahead, and $h=0$ is the first year of fiscal consolidation (*FC*). The specification controls for lags of real GDP growth and real GDP per capita (from the World Economic Outlook database) and a lag of the fiscal consolidation dummy (due to serial correlation), and clusters standard errors at the country level. The specification also allows for nonlinearities in the impact of fiscal consolidations depending on the level of inflation (when dummy indicator *D* takes value 1). Results can be interpreted as a difference-in-difference framework that identifies the effect of fiscal consolidations on macro-fiscal variables, allowing for state-dependence relating to inflation. Fiscal consolidation episodes are defined using a news-based narrative approach, as proposed by DeVries et al (2011).[2] This method considers discretionary fiscal measures that are primarily motivated by a desire to reduce the budget deficit and improve long-term fiscal health and not by a response to prospective economic conditions.[3] It has the advantage of being more exogenous than approaches that rely on changes in cyclically-adjusted primary balances (CAPB) or other attempts to account for the cycle through filtering methods.[4] Fiscal consolidation events are measured either as a dummy indicator that equals 1 in the first year of the consolidation or an estimate of the magnitude of consolidation, with data obtained from DeVries et al (2011), Alesina et al (2015) and David et al (2018).[5]

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[1] Prepared by *Andresa Lagerborg*.

[2] A news-based approach to identify fiscal consolidations is adopted by DeVries and others (2011) for the sample period 1978-2009, and Alesina and others (2015) extends this data for the period 2009–14, identifying 60 episodes spanning 17 OECD countries. David and others (2018) further identify 76 fiscal consolidation episodes in 14 countries in Latin America and the Caribbean during 1989–2016.

[3] Fiscal adjustment episodes are deemed exogenous if they are (i) geared towards reducing the budget deficit; (ii) politically motivated with reasons that are independent from the state of the business cycle; and (iii) prompted by a long-run economic trend, e.g., reducing the sustainability gap of public finances induced by population ageing. Adjustments induced by short-run countercyclical concerns are considered endogenous and thus excluded.

[4] Cyclically adjusted changes in fiscal policy can be motivated by a desire to respond to cyclical fluctuations, raising reverse causality concerns and likely biasing the analysis toward finding evidence of expansionary effects. In contrast, the narrative approach identifies measures motivated primarily by deficit reduction and to put public debt on a more sustainable path and are therefore less to be systematically correlated with other developments affecting output in the short term.

[5] Jordà (2015) shows that results are highly robust to using a dummy indicator or estimates of fiscal consolidation measures as a share of GDP. Moreover, since on average consolidations measured 1 percent of GDP, the magnitude of responses was comparable. While Jordà (2015), uses fiscal consolidation events as an instrument for the change in the cyclically adjusted primary balance, this analysis instead estimates their direct impact (without an IV-approach) to maintain a larger sample of countries (especially EMs have limited CAPB data), similar to Carriere-Swallow et al (2018).

Online Annex 1.3. Assessing Sectoral Exposures to Energy Cost Shocks[1]

This annex provides the calculations for Figure 1.19, panel 2 in Chapter 1.

To analyze the susceptibility of firms and workers to the energy cost shock, we use data from Eurostat structural business statistics (SBS), which provide information on business structure and performance on an annual basis in the EU-27 area. This data includes information on the number of enterprises, number of employees, gross operating surpluses, personnel costs, and costs of goods and services at the NACE Rev 2. aggregate classification levels. We use data at the NACE 2-digit classification level for our analysis and limit our analysis to the industry and construction aggregates, for which energy cost information is reported separately from the overall cost of goods and services. Given the unusual changes in economic activity that occurred in 2020, which make it an unsuitable base year for projections, we use 2019 data as a base for our analysis.[2]

To identify sectors at risk, we create imputed sectoral-level energy costs based on information about energy costs reported at the NACE 2-digit sector level combined with the actual energy prices. Energy price inflation is calculated at the country level, using Eurostat data on producer price indices for the energy sector. Imputed energy costs in 2022 are thereafter estimated by inflating energy costs reported by sectors in 2019 by the amount of energy price inflation observed between 2020Q1 and 2022Q3. Using imputed energy costs in 2022, imputed gross operating surpluses are estimated at the sector level for 2022, using the simplifying assumption that non-energy costs, personnel costs and revenues increase in the same proportion between 2019 and 2022. Hence, the change in imputed operating surplus in 2022 is lower than 2019 by the amount of increased energy costs in 2022.[3] We define at-risk sectors as sectors where the imputed operating surplus in 2022 is negative.

Using Eurostat data on number of enterprises and number of employees within sectors identified as at-risk, we can identify employment and enterprises at risk. Consequently, given our assumptions, variation in levels of exposure to the energy shock between countries and sectors is driven by the cost of energy inputs at the country level, profitability margins at the sector level, and the number of employees and enterprises in at-risk sectors.[4]

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[1] Prepared by *Salma Khalid*

[2] Presently, data is only available until 2020.

[3] Imputed Operating Surplus 2022 = Operating Surplus 2019 – (Imputed Energy Costs 2022 – Energy Costs 2019)

[4] Given data limitation in the availability of production indices and producer price indices at the NACE 2-digit level in several countries in the sample, we encounter too much data loss in attempting to relax our assumptions on operating surpluses rising proportionately with non-energy and personnel costs.

Online Annex 1.4. The Budget Effects of 2022 Inflation Surprises[1]

This annex studies the implications of 2022 inflation surprises on debt and deficit, incorporating the institutional features including country-specific indexation practices and tax system. An accounting exercise is used to quantify the "immediate" effects of 2022 inflation surprises on primary balances and debt-to GDP across select economies. The effect of an inflation surprise on the primary balance as a share of GDP is approximated by:

$$\Delta \left(\frac{r-x}{y} \right) = \Delta\pi^{\text{cpi}} * \frac{\epsilon^r r - \sum_i \epsilon_i^x x_i}{y} - \Delta\pi^{def} * \frac{r-x}{y}. \qquad (1)$$

where r is revenue, x primary expenditure (with i indexing individual expenditure items), y nominal GDP, $\Delta\pi^{\text{cpi}}$ the CPI inflation surprise, $\Delta\pi^{\text{def}}$ the GDP deflator surprise, ϵ^r the revenue elasticity to inflation, and ϵ_i^x the primary expenditure item elasticity to inflation. The first term in the equation captures the impacts on nominal revenue and expenditure, and the second term the nominal GDP denominator channel.

The effect of the inflation surprise on the debt-to-GDP ratio is:

$$\Delta \left(\frac{d}{y} \right) = -\Delta\pi^{def} * \frac{d}{y} - \Delta \left(\frac{r-x}{y} \right) \qquad (2)$$

where d is nominal debt. The first term captures the nominal GDP denominator channel, and the second term the primary balance channel. For these accounting exercises, several assumptions are made. For instance, the effects of inflation on budget components are assumed to be linear.[2] Another assumption used is that expenditure and revenue respond to CPI inflation, whereas nominal GDP adjusts one-to-one with the surprise in the GDP deflator growth. The assumed revenue elasticity is $\epsilon^r = 1$, in line with empirical estimates (Garcia-Macia 2023). The elasticity ϵ_i^x differs by country and expenditure item. Non-indexed primary expenditure is assumed fixed in nominal terms ($\epsilon_{non-indexed}^x = 0$), i.e., there is no active policy accommodation of inflation. Instead, indexed primary expenditure responds to the relevant CPI shock for each expenditure item ($\epsilon_{indexed}^x > 0$), although potentially not one-to-one in the concurrent year.

Impacts of Inflation by Country and Expenditure Item

Using the information in Online Annex Table 2.2.1 of Annex 2.2 (see also Balasundharam, Kayastha, and Poplawski-Ribeiro 2023), Online Annex Figure 1.4.1 shows how indexation of tax brackets and expenditure items (public wages, pensions, and social transfers) has impacted primary balances across a select group of countries at different income levels. In the select sample of countries, the effects of indexation are strongest for those that automatically index their wage bill, such as Belgium, followed by those that index their pensions and have a large pension expenditure such as Italy. For emerging economies, the impact of indexation is relatively small because the inflation surprises were generally smaller, except for Türkiye. In general, the impact of indexation of social transfers is small because they generally account for a small share of expenditure.

[1] Prepared by Daniel Garcia-Macia and Vybhavi Balasundharam.

[2] This is just an approximation that may be less fitting for certain channels, such as tax bracket creep, where the elasticity of revenue depends on the shape of the income distribution and may vary depending on the inflation level. However, this estimate aims to provide the best approximation with available macro data.

Online Annex Figure 1.4.1. Contribution of FY2022 Inflation Surprises to FY2022 and 2023 Primary Balances through Indexation of Expenditure Items and Tax Brackets
(Percent of GDP)
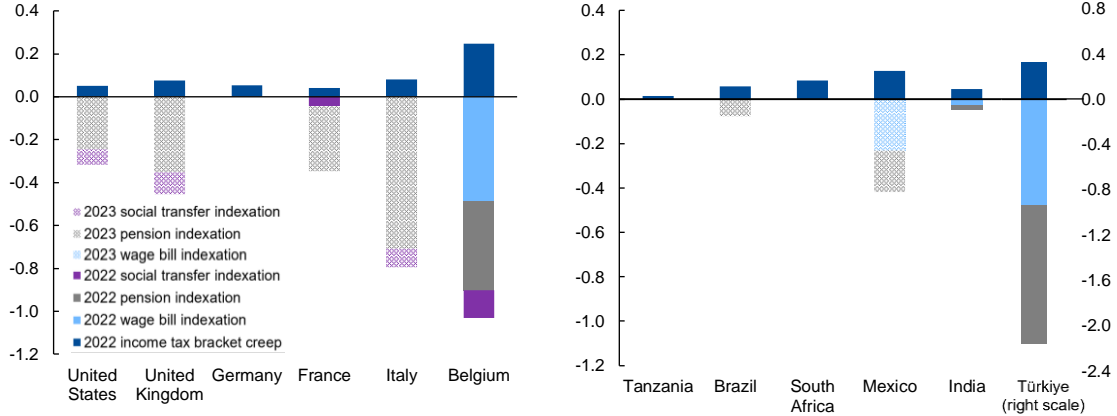
Source: IMF staff calculations.
Note: The reference point is the FY 2022 budget that was announced towards end-2021/early-2022 prior to the inflation surprise. Estimates are based on country-specific automatic indexation practices and do not include discretionary adjustments that countries have made in response to the inflation surprise. Social transfers only include programs that have automatic indexation. Estimates for bracket creep use changes in average earnings if available and the GDP deflator surprise otherwise. The contribution of expenditure items is based on the relevant CPI measure used for indexation in each country. The estimate for 2023 pension indexation costs for Italy is an upper bound, as higher pensions are receiving a lower cost-of-living adjustment.

Online Annex Figure 1.4.2. Simulated Effects of FY2022 Inflation Surprises on FY2022 Primary Balances and Debt
(Percent of GDP, unless stated otherwise)
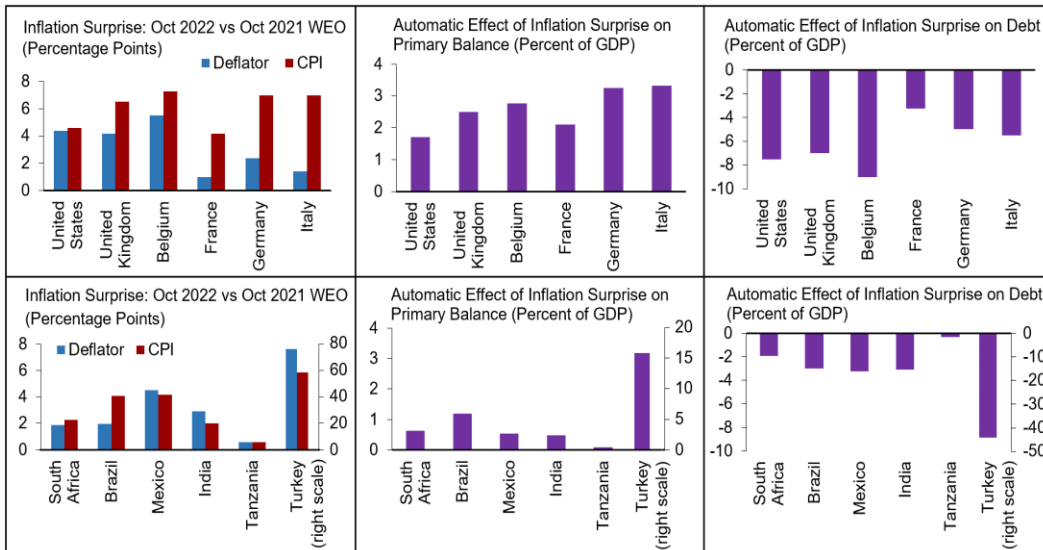
Source: IMF staff calculations based on the World Economic Outlook database.
Notes: Inflation surprises (either CPI or GDP deflator) in the October 2022 vs. the October 2021 World Economic Outlook. Inflation surprises increase primary expenditure in 2022 with spending items indexation. Revenue is assumed to grow one-to-one with the CPI inflation surprise, and nominal GDP with the GDP deflator growth surprise.

Applying Equations (1) and (2) above, Online Annex Figure 1.4.2 shows the overall impact of inflation surprises in 2022 on primary balances and debt in the same year. Inflation surprises created an "automatic" improvement in primary balances and public debt in 2022. For primary balances the boost is around 1.5 to 3 percentage points of GDP for advanced economies and about 0.4 percentage points of GDP in most of the analyzed emerging and developing economies. For debt, the reduction is even larger with the combination of the improvement in primary balances as well as the marked rise in the nominal GDP denominator. In the select advanced economies, the drop in debt can reach up 9 percentage points of GDP (Belgium), whereas in most of the select emerging market and developing economies the reductions are smaller as so where the inflation surprises.[3]

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[3] Other factors contributed to the reduction in those debt ratios in recent years, notably the real economic recovery since the most acute phase of the COVID-19 pandemic (Gaspar, Medas, and Perrelli 2022). The underlying fiscal stance in 2022 of the select countries differed from the one implied by automatic contributions from inflation.

References

Adan, H., J.M. Atsebi, N. Gueorguiev, J. Honda, and M. Nose. 2023. "Revisiting the Revenue Yields from Tax Administration," IMF, mimeo.

Afonso, A. and J. Alves. 2022. "Are fiscal consolidation episodes helpful for public sector efficiency?" Working Papers REM 2022/0230, ISEG - Lisbon School of Economics and Management, REM, Universidade de Lisboa. https://ideas.repec.org/p/ise/remwps/wp02302022.html

Alesina, A., C. Favero, and F. Giavazzi. 2015. "The Output Effect of Fiscal Consolidation Plans". *Journal of International Economics*, Vol. 96(S1), S19–S42.

Alesina, A., C. Favero, and F. Giavazzi. 2019. "Effects of Austerity: Expenditure- and Tax-Based Approaches". *Journal of Economic Perspectives*, 33(2): 141–62.

Almunia, M. and D. Lopez-Rodriguez, 2018. "Under the Radar: The Effects of Monitoring Firms on Tax Compliance," *American Economic Journal: Economic Policy* 10, pp. 1–38.

Auerbach, A. J. and Y. Gorodnichenko. 2012. "Measuring the Output Responses to Fiscal Policy". *American Economic Journal: Economic Policy*, Vol. 4, No. 2, pp. 1–27.

Bachas, P., R. Fattal Jaef, and A. Jensen. 2019. "Size-Dependent Tax Enforcement and Compliance: Global Evidence and Aggregate Implications," *Journal of Development Economics* 140, pp. 203–22.

Bachas, P., M. Fisher-Post, A. Jensen, and G. Zucman, 2022. "Globalization and Factor Income Taxation," *NBER working paper* No. 29819.

Baer, K., O. Benon, and J. Toro, 2002. "Improving Large Taxpayers' Compliance: A Review of Country Experience," *IMF Occasional Papers*, No. 2002/006.

Balasundharam, Vybhavi, Arika Kayastha, and Marcos Poplawski-Ribeiro. 2023. "Inflation Indexation: Current International Practices." IMF Working Paper, forthcoming, International Monetary Fund, Washington, DC.

Baum, A., M. Poplawski Ribeiro, and A. Weber. 2012. "Fiscal Multipliers and the State of the Economy". *IMF Working Paper* No. WP/12/286 (Washington: International Monetary Fund).

Baum A., S. Gupta, E. Kimani, and S. Tapsoba, 2017. "Corruption, Taxes and Compliance," *IMF Working Papers*, WP 17/255.

Basri, M. C., M. Felix, R. Hanna, and B. A. Olken. 2021. "Tax Administration versus Tax Rates: Evidence from Corporate Taxation in Indonesia," *American Economic Review*, 111 (12): 3827–71.

Bertrand, M., E. Duflo, and S. Mullainathan. 2004. "How Much Should We Trust Differences in-Differences Estimates?" *Quarterly Journal of Economics* 119.4, pp. 249–75.

Borusyak, K., X. Jaravel, and J. Spiess, 2021. "Revisiting Event Study Designs: Robust and Efficient Estimation," working paper.

Carrière-Swallow, Y., A. C. David, and D. Leigh. 2018. "The Macroeconomic Effects of Fiscal Consolidation in Emerging Economies: Evidence from Latin America," *IMF Working Paper* No. WP/18/142 (Washington: International Monetary Fund).

Chang, E., E. Gavin, N. Gueorguiev, and J. Honda. 2020. "Raising Tax Revenue: How to Get More from Tax Administrations?" *IMF Working Papers*, WP 20/142.

Chooi, A., 2022. "Mobilizing Revenue: Strengthening Large Taxpayer Administration," Asian Development Bank, *The Governance Brief*, issue 48.

David, A.C. and D. Leigh. 2018. "A New Action-based Dataset of Fiscal Consolidation in Latin America and the Caribbean". *IMF Working paper* 18/94 (Washington, DC: International Monetary Fund).

David, A., J. Guajardo, and J. Yépez, 2022, "The Rewards of Fiscal Consolidations: Sovereign Spreads and Confidence Effects," *Journal of International Money and Finance*, Vol. 123, 102602.

Devries, P., J. Guajardo, D. Leigh, and A. Pescatori. 2011. "A New Action-based Dataset of Fiscal Consolidation". IMF Working Paper.

Dom, R., A. Custers, S. Davenport, and W. Prichard, 2022. *Innovations in Tax Compliance: Building Trust, Navigating Politics, and Tailoring Reform*. Washington, DC: World Bank.

Dom, R., and Miller, M., 2018. "Reforming Tax Systems in the Developing World. What Can We Learn from the Past?" Overseas Development Institute, June 2018 Report.

Ebeke, C., M. Mansour, and G. Rota Graziosi. 2016. "The Power to Tax in Sub-Saharan Africa: LTUs, VATs, and SARAs," *FERDI working paper* No. 154.

Ebrill, L., M. Keen, J.P. Bodin, and V. Summers, 2001. *The Modern VAT,* Washington, DC: International Monetary Fund.

Fossat, P. and M. Bua 2013. "Tax Administration Reform in the Francophone Countries of Sub-Saharan Africa," *IMF Working Papers*, WP 13/173.

Garcia-Macia, Daniel. 2023. "The Effects of Inflation on Public Finances." IMF Working Paper, forthcoming, International Monetary Fund, Washington, DC.

Gaspar, Vitor, Paulo Medas, and Roberto Perrelli. 2022. "Riding the Global Debt Rollercoaster." IMF blog, December 12, International Monetary Fund. Washington DC, available at https://www.imf.org/en/Blogs/Articles/2022/12/12/riding-the-global-debt-rollercoaster.

International Monetary Fund. 2022. "Fiscal Consolidation: Taking Stock of the Literature." Note. Fiscal Affairs Department.

Jordà, O. 2015. "A Time for Austerity". *The Economic Journal.*

McCarten, W., 2004. "Focusing on the Few: The Role of Large Taxpayer Units in the Revenue Strategies of Developing Countries," World Bank, working paper.

Molnár, M. 2012. "Fiscal Consolidation: What Factors Determine the Success of Consolidation Efforts?" *OECD Journal: Economic Studies*, Vol. 2012/1, pp. 123–49.