Bahçeşehir Üniversitesi Ekonomik ve Toplumsal Araştırmalar Merkezi
Betam
Research brief 26/284
BAHÇEŞEHİR ÜNİVERSİTESİ
19 August 2026

A tale of two methodologies: The impact of inflation on wages in Türkiye +

Luis Pinedo Caro[1*]

Summary

Controversy has surrounded TÜİK's consumer price index since 2019, with a group of independent researchers creating their own methodology (ENAG) and entering into a cycle of legal battles and public complaints together with Türkiye's main opposition party and other stakeholders that is still ongoing in 2026. This brief examines the impact of these competing methodologies on wage evolution in the country. It finds that TÜİK's and ENAG's deflated series produce sharply divergent pictures of real wage developments, and introduces a third, independent approach — converting wages to euros and deflating them using the Euro Area CPI — whose results suggest that the true evolution of purchasing power likely lies between the two; there was real wage erosion for a while, but purchasing power was recovered after the return to an orthodox monetary policy since 2023.

Introduction

Controversy has surrounded the consumer price index published by the Turkish Statistical Institute (TÜİK) since at least June 2019, when Türkiye's main opposition party filed a parliamentary motion[2] alleging that unprecedented methodological adjustments had damaged the credibility of official inflation figures. What began as a political accusation without empirical counterpart changed qualitatively in September 2020, when a group of Istanbul-based academics founded the Inflation Research Group (ENAG) and began publishing an independent, transparent price index alongside the official one. The gap between the two measures widened sharply over the following years — by March 2022, TÜİK reported annual inflation of 61 percent against ENAG's estimate of 143 percent — and the dispute escalated

[1]+ Çevrimiçi ek dosyalarına Betam web sitesinden ulaşılabilir: https://betam.bahcesehir.edu.tr/2026/08/?

* Luis Pinedo Caro, **Betam**, luis.pinedo@bau.edu.tr

[2] Yahoo News / Reuters: *"Turkish opposition questions credibility of inflation data"* (19 June 2019) — https://www.yahoo.com/news/turkish-opposition-questions-credibility-inflation-141819922.html

from statistical disagreement into open legal confrontation: TÜİK filed a criminal complaint[3] against ENAG in May 2021 for "defaming" the institution, and the ruling party drafted legislation in 2022 that would have imposed prison sentences of up to three years[4] on researchers publishing unapproved economic indicators. The controversy has continued since, including a pending 2024 lawsuit[5] alleging deliberate underreporting of inflation to suppress pension increases, a public admission by Finance Minister Mehmet Şimşek in January 2025[6] that the government had altered basket prices, and a further revision[7] of the CPI methodology in January 2026 that reopened the same debate over timing and credibility.

This dispute has not only political consequences but also direct consequences for the measurement of real wages, yet international organisations have reported on Turkish labour income inconsistently at best. The ILO's Global Wage Report,[8] for instance, has sent mixed signals on this question across recent editions. The 2022–23 edition, published at the height of the ENAG–TÜİK divergence, did not report a country-specific real wage growth figure for Türkiye, mentioning it only in passing among emerging G20 economies with falling real wages in 2020, alongside Indonesia and South Africa. The 2024–25 edition, by contrast, featured Türkiye prominently, reporting real wage growth of 38.8 per cent in 2023 and 27.2 per cent in 2024 — the highest among the economies covered — built entirely on official CPI data, without acknowledging the existence of a credible alternative measure. This shift illustrates how sensitive headline wage figures for Türkiye are to the choice of inflation measure. Moreover, shortly before his dismissal, a former head of TurkStat made remarks alluding to pressure over the figures that, if anything, raise doubts about the validity of the official estimates.[9] This inconsistency in international organization's reporting is in itself notable: it

[3] English bianet: *" TurkStat files complaint against independent Inflation Research Group"* (8 May 2021) — https://bianet.org/english/freedom-of-expression/243775-turkstat-files-complaint-against-independent-inflation-research-group

[4] bne IntelliNews: *"Turkey moving to jail researchers who publish unapproved economic data"* (14 April 2022) — https://www.intellinews.com/turkey-moving-to-jail-researchers-who-publish-unapproved-economic-data-241561/

[5] Nordic Monitor: *"Turkey's inflation data is deliberately underreported, lawsuit alleges, casting doubts on reliability of official statistics"* (25 March 2025) — https://nordicmonitor.com/2025/03/turkeys-inflation-data-is-deliberately-underreported-lawsuit-alleges-casting-doubts-on-reliability-of-official-statistics/

[6] Ibid.

[7] Central Bank of the Republic of Türkiye (CBRT), "Revisions to the 2026 Consumer Price Index and Their Implications," *Merkezin Güncesi* (CBRT Blog), 4 February 2026, available at: https://tcmbblog.org/wps/wcm/connect/blog/en/main+menu/analyses/revisions+to+the+2026+consumer+price+index+and+their+implications

[8] ILO: *"Global Wage Report: Data"* — https://www.ilo.org/publications/global-wage-report-data

[9] Sait Erdal Dinçer, TurkStat's chairman before his dismissal in January 2022.*"*Al Jazeera, *"Erdogan sacks statistics chief after record annual inflation"* (29 January 2022) — *https://www.aljazeera.com/economy/2022/1/29/erdogan-sacks-statistics-chief-after-record-inflation*

leaves policymakers and researchers either with no number or with a single, contested number as the only available benchmark for a question — how much purchasing power have Turkish workers actually gained or lost — that plainly does not have a single, uncontested answer and whose results affect more than 20 million wage earners.

This research brief attempts to shed light on the debate by relying on both competing sources of inflation data. Using TÜİK's Household Labour Force Survey microdata alongside both, the official TÜİK CPI and the independent ENAG index, it constructs and compares real wage monthly series for the minimum and average wage in Türkiye between 2015 and 2025. More importantly, it further introduces a third, independent cross-check — converting nominal Turkish lira wages into euros at the contemporaneous spot exchange rate and deflating them using the Euro Area CPI — to assess the two competing domestic narratives against a benchmark that depends on neither. This addition enriches the debate not by taking sides, but rather by allowing the comparison to attribute just merits to each method and period.

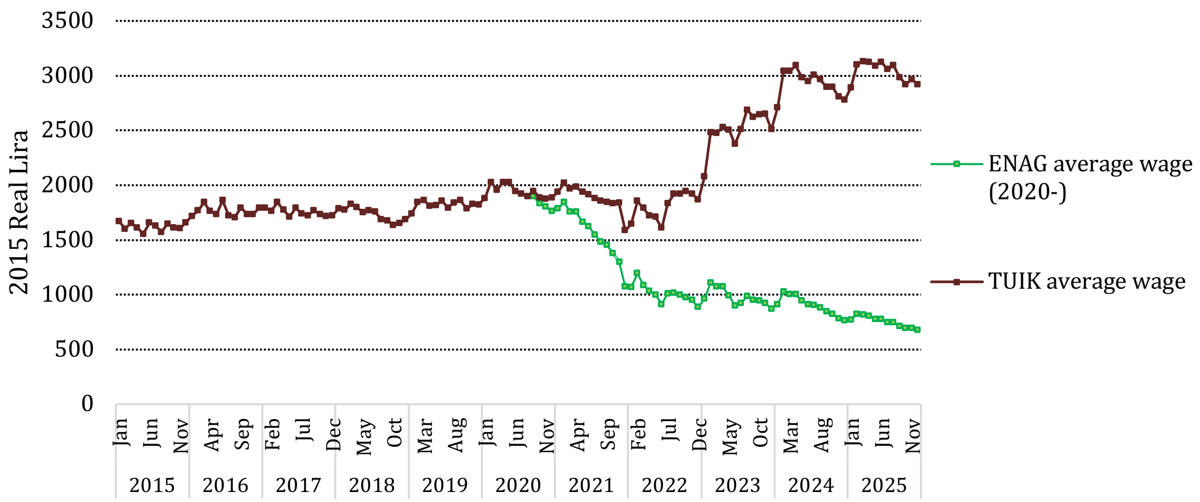
1. *TÜİK vs. ENAG wage evolution*

Real wages are constructed by deflating nominal net (take-home) wages from TÜİK's Household Labour Force Survey (HLFS) microdata[10] using two alternative price indices, rebased to constant 2015 lira. The TÜİK series applies the official CPI throughout; the ENAG series applies ENAG's independent CPI rates from their inception. Because ENAG has only published a monthly index since September 2020, no independent alternative to TÜİK existed before that date — a point already noted in the Introduction. For this reason, Figures 1 and 2 show a single, TÜİK-deflated line before September 2020, and two diverging lines from that point onward, rather than presenting a fabricated pre-2020 ENAG series.

The contrast between the two deflated series is stark for both wage measures, but particularly severe for the minimum wage (Figure 2). Under the official TÜİK CPI, real minimum and average wages broadly recover their 2015 level by the mid-2020s, rising by 66.1 and 74.8 per cent respectively over the full period. Under the ENAG CPI, both series instead fall by roughly 60 per cent over the same horizon — a divergence of over 130 percentage points driven by the choice of deflator, since the underlying nominal wage series is identical in both cases.

[10] The monthly wage series was constructed and harmonized from TÜİK's Household Labour Force Survey microdata by deploying custom temporal identification algorithms based on household IDs alongside rescaled sampling weights (2015–2025).

Figure 1. Average wage, real wages, constant 2015 TRY

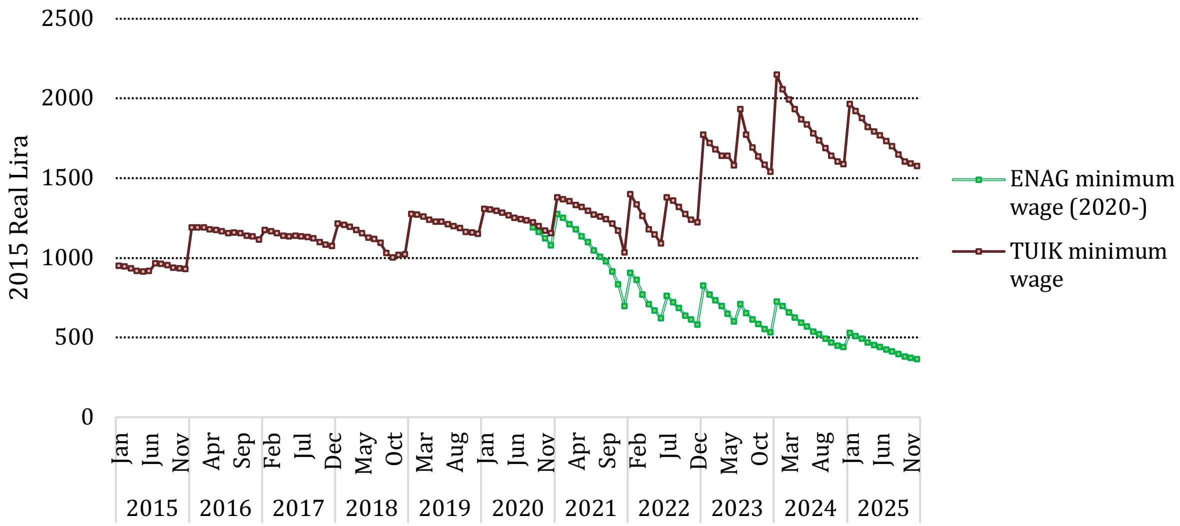


Source: Turkstat Household Labour Force Survey microdata (2015-2025), Turkstat Consumer Price Index, ENAG Inflation Research Group inflation rates and author's own calculations. ***Notes:*** Average wages are obtained from the HLFS microdata and converted to constant lira of 2015 using, respectively, Turkstat official CPI and ENAG alternative CPI rates.

Both series also display a pronounced sawtooth pattern, reflecting Türkiye's practice of adjusting the minimum wage once or twice a year rather than continuously indexing it to inflation. This is consistent with evidence that wages around the minimum are largely acyclical, while the rest of the wage distribution — including average wages — responds more flexibly to economic conditions (Aldan and Gürcihan Yüncüler, 2016). Using the ENAG-deflated series, the average intra-year fall in the real minimum wage — measured from the peak reached immediately after each wage adjustment to the bottom reached just before the next one — was 22.9 per cent between 2015 and 2025, and exceeded 35 per cent in each year from 2022 to 2024. In other words, a minimum wage earner typically lost close to a quarter of their purchasing power over the course of a year simply through inflation eroding a wage that was fixed in nominal terms between adjustments. The equivalent intra-year fall for the average wage was smaller, at 16.9 per cent, consistent with average wages being renegotiated more frequently and more heterogeneously across firms and sectors than the single, centrally set minimum wage.

The wage series presented above point to the same underlying tension documented for employment statistics, but with starker consequences for living standards. When average and minimum wages are deflated using the official TÜİK CPI, both series recover most of their 2015 purchasing power by the mid-2020s, with the average wage ending the period above its starting level. When the same nominal wages are deflated using the independent ENAG price index, however, both series decline almost monotonically after 2021, ending 2025 at a fraction of their earlier real value. Since the two calculations differ only in the price index applied, the gap between them is, by construction, a direct measure of the cumulative divergence between official and independent inflation estimates.

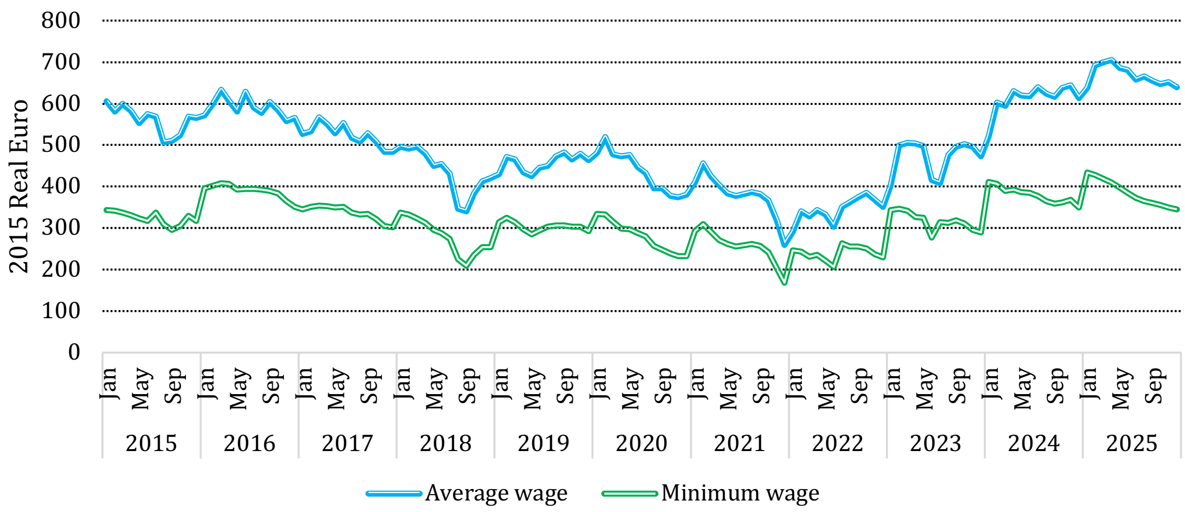
Figure 2. Minimum wage, real wages, constant 2015 TRY



Source: Ministry of Labour and Social Security, Turkstat Consumer Price Index, ENAG Inflation Research Group inflation rates and author's own calculations. ***Notes:*** Minimum wages obtained from the Ministry of Labour and Social Security and converted to constant lira of 2015 using, respectively, Turkstat official CPI and ENAG alternative CPI rates.

As a robustness check that does not depend on either Turkish price index, wages were also converted into euros at the contemporaneous spot exchange rate and deflated using the Euro Area CPI. This series avoids the dispute over which domestic index is correct, at the cost of introducing exchange-rate volatility. It shows a path broadly consistent with the ENAG-deflated series in direction, including a pronounced trough around the December 2021 currency crisis, but a subsequent recovery that leaves both minimum and average wages, in real euro terms, modestly above their 2015 starting point by the end of the sample. This suggests that part of the apparent divergence between the TÜİK- and ENAG-based series reflects genuine currency depreciation rather than domestic inflation alone, and that the ENAG-deflated series, if anything, may overstate the depth of the loss in internationally comparable terms, while the TÜİK-deflated series understates it.

Figure 3. Average and minimum wage, real wages, constant 2015 EUR



Source: European Central Bank, Ministry of Labour and Social Security, Turkstat Household Labour Force Survey microdata (2015-2025), and author's own calculations. ***Notes:*** Average wages obtained from the HLFS microdata, minimum wages from the Ministry of Labour and Social Security, both converted to constant Euro of 2015 after applying the contemporaneous spot exchange rate and then deflated using the Euro Area Consumer Price Index.

Taken together, these three series illustrate why the choice of deflator is not a technical detail but a substantive empirical question with direct welfare implications. Whether Turkish workers experienced a broad recovery in purchasing power or a prolonged and severe erosion depends materially on which inflation measure is used, underscoring the same caution urged elsewhere in this brief regarding the interpretation of official statistics during the post-2018 period.

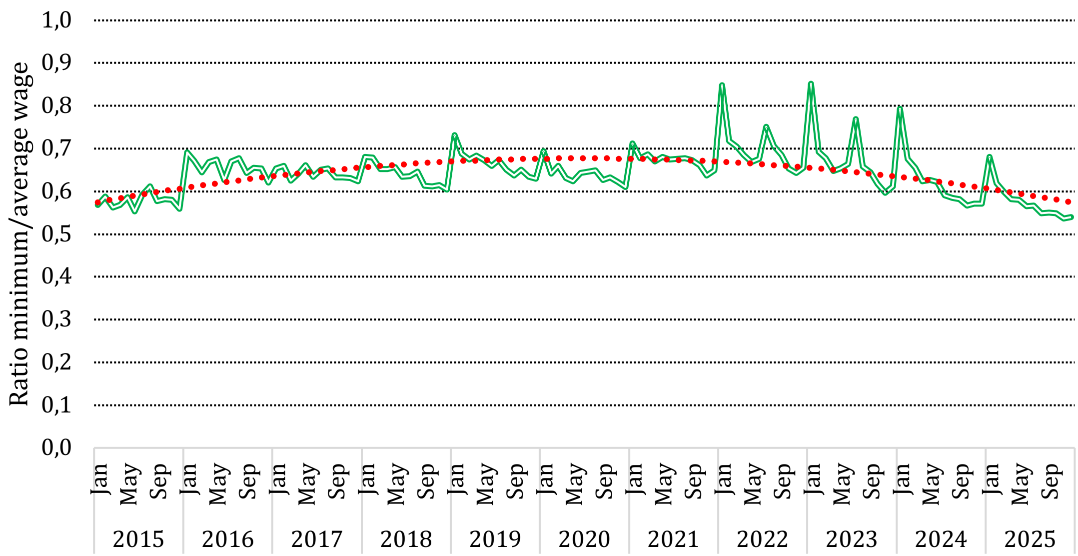
2. Calculating the cost borne by employees

To quantify the cumulative cost of the past decade for Turkish workers, this section calculates the gap between the observed real euro wage and a counterfactual trend under three alternative growth assumptions, for both the average and the minimum wage earner. The euro-denominated wage series is used throughout, rather than either the TÜİK- or ENAG-deflated lira series, precisely to isolate the calculation from the domestic inflation dispute and any bias, in either direction, that either index may carry.

From 2023 onward, economic policy shifted decisively toward monetary orthodoxy under Finance Minister Mehmet Şimşek. This shift coincided with a marked change in wage-setting behaviour: rather than continuing the emergency-style minimum wage hikes of 2021-2023 — visible in the graph as sharp January spikes pushing the minimum-to-average ratio as high as

0.85 — policymakers allowed the minimum wage to grow at a more moderate, sustainable pace. Average wages, freed from the need to compensate for currency collapse, revalued strongly in real euro terms, while the minimum wage grew more modestly. The net effect was a return of the minimum-to-average wage ratio to close to its 2015 level (0.577 in 2025, against 0.578 in 2015) — not through a collapse in the minimum wage's real value, but through the average wage outpacing it once the orthodox policy regime took hold.

Figure 4. Ratio minimum to average wage in Türkiye



Source: TurkStat Household Labour Force Survey microdata and Ministry of Labour and Social Security.

The proportional damage to minimum wage earners, while still severe in absolute terms, is smaller than for average wage earners when measured relative to current income: the flat-scenario loss is equivalent to roughly 2.4 months of the 2025 minimum wage, against 12.5 months of the 2025 average wage, rising to 29 and 39 months, respectively, under the G20 emerging-peer scenario. This is consistent with the policy pattern documented in Figure 4: successive governments repeatedly intervened with large, discrete minimum wage hikes at moments of acute currency stress, in effect using the minimum wage as a social buffer, while average wages were left to adjust more gradually through ordinary labour market bargaining.

This protective strategy was not without risk. Allowing the minimum wage to rise sharply toward the average wage compresses the wage structure from below, as already observed at the regional level in Turkey (Gürsel, Uysal and Kökkızıl, 2016). Such compression can, in turn, weaken the earnings premium associated with experience, qualifications and formal education. Sustained over time, such compression can damage incentives to invest in skills, encourage informal employment where minimum wage rules bind less tightly, and contribute to the migration of skilled workers seeking wage differentials more commensurate with their qualifications abroad. The subsequent decline in the minimum-to-average ratio from 2023 onward, discussed below, can be read as a partial unwinding of this compression once the acute phase of the crisis had passed.

The three scenarios in Table 1 are intended as a plausible bracket rather than point estimates. The flat (0 per cent real growth) scenario is a lower bound, showing the loss that would remain even under the minimal assumption that wages should simply have kept pace with prices since 2015. The Eurozone-peer and G20 emerging-peer scenarios are both plausible upper reference points — the former reflecting a mature-economy comparator, the latter a catching-up economy comparator more structurally similar to Türkiye, albeit one whose average already includes Türkiye's own weak performance and is, if anything, a conservative benchmark. The true counterfactual most plausibly lies within this bracket.

Table 1. Net area loss, 2015-2025

	Average wage			Minimum wage		
Scenario	Total loss €	Monthly loss €	% wage lost	Total loss €	Monthly loss €	% wage lost
Flat (0%)	8,343	63.2	11.3	907	6.9	2.1
Eurozone peer	10,399	78.8	13.6	2,093	15.9	4.8
G20 emerging peer	26,233	198.7	28.5	11,231	85.1	21.2

Notes: The table calculates the difference between a counterfactual wage based on the shown scenarios and the actual wage seen in the country; it adds up the difference between 2015 and 2025 and reports it monthly and overall.

Using the Central Bank of the Republic of Turkey's own reported household savings rate of 10.9 per cent of disposable income,[11] and the average real euro wage level observed in 2025, recovering the lost purchasing power implied by the flat (0 per cent growth) scenario — the most conservative bound considered — would take an average wage earner an estimated 9.5 years of saving, and a minimum wage earner 1.8 years.[12] Under the G20 emerging-peer scenario — the upper bound, and if anything a conservative one, since Türkiye's own weak wage performance is itself included in that peer average — the equivalent figures rise to 30.0

[11] See Betti, Ceritoğlu, Küçükbayrak & Sevinç (2022).

[12] The saving capacity of a minimum wage earner is arguably lower than that of the average person in the country and the figure could even be higher in terms of impact. A conservative assumption is taken here consistent with the spirit of the brief. The rather low savings rate in comparison with other countries is explained in Ceritoğlu & Cılasun (2017).

years for the average wage earner and 22.3 years for the minimum wage earner.

A striking feature of the flat-scenario estimate is its proximity to Türkiye's household savings rate: the 11.3 per cent loss estimated for the average wage earner under the most conservative counterfactual is almost identical to the 10.9 per cent of disposable income Turkish households typically save. This suggests a plausible, if indirect, reading of the result — that even under the most cautious assumptions, the erosion of real wages did not primarily displace ordinary consumption, but rather absorbed what would otherwise have been the average worker's entire savings margin. No equivalent coincidence holds for the minimum wage, whose flat-scenario loss (2.1 per cent) falls well short of the savings rate, consistent with minimum wage earners having little to no savings margin to erode in the first place.

3 *Conclusions*

The divergence documented throughout this brief is, in the end, a story of two starkly different pictures of the same decade. Deflating nominal wages with the official TÜİK CPI implies that both the average and minimum wage grew by roughly 75 and 66 per cent, respectively, in real terms between 2015 and 2025. Deflating the same nominal wages with the independent ENAG CPI implies instead a collapse of around 60 per cent in both series over the same period. These are not small differences of degree; they are opposite conclusions about whether Turkish workers are, on net, better or worse off than a decade ago.

Because both domestic indices are, to different degrees, contested, this brief also constructed a third, non-partisan benchmark: nominal wages converted into euros at the contemporaneous exchange rate and deflated using the Euro Area CPI, a measure that depends on neither TÜİK nor ENAG. This series is a useful arbiter precisely because it is external to the domestic dispute.

The euro-based series suggests that neither domestic narrative is fully correct on its own. Real wages in euro terms fell sharply during the 2018–2022 period, consistent with the view that official TÜİK inflation understated the true cost-of-living pressures Turkish households faced during those years. From 2023 onward, however, the euro-based series recovered strongly and now sits close to, and for the average wage above, its 2015 level — a trajectory much closer to TÜİK’s account of the post-2023 period than to ENAG’s, which continues to show a deep and unrecovered loss. This points to a plausible middle-ground reading: TÜİK likely understated inflation during the pre-2023 crisis years, while ENAG's estimates may have overstated the extent of the post-2023 deterioration.

The magnitude of the damage documented in Table 1 is, under any of the three scenarios considered, substantial. The range of saving-years lost by the average employee is bounded between 9.5 and 30 and for minimum wage earners between 1.8 and 22.3. The true figure most plausibly lies within these bounds, but even at the lower end, the loss represents a multi-year setback in household savings capacity that is difficult to reconcile with any account of the past decade as one of rising prosperity.

Taken together, these findings point to one overarching conclusion: the coexistence of two competing, mutually contradictory inflation measures imposes real costs on Türkiye, both on individual workers, who cannot reliably know whether their wages are keeping pace with the cost of living, and on the credibility of economic policymaking more broadly. Restoring trust in a single, credible consumer price index — whether through methodological reform at TÜİK, independent oversight, or some combination of the two — is not merely a statistical housekeeping matter. It is a precondition for protecting workers' purchasing power and for restoring the basic public trust that any functioning economy requires.

References

Aldan, A. and Gürcihan Yüncüler, H. B. (2016). Real Wages and the Business Cycle in Turkey. CBRT Working Paper No. 16/25. Central Bank of the Republic of Turkey, Ankara.

Betti, G., Ceritoğlu, E., Küçükbayrak, M. and Sevinç, Ö. (2022). Central Bank of the Republic of Turkey Household Finance and Consumption Survey Methodology. CBRT Working Paper No. 22/01. Central Bank of the Republic of Turkey, Ankara.

Ceritoğlu, E. and Cılasun, S. M. (2017). Have Our Views on the Savings Gap Changed After the National Income Revision? CBRT Blog, Central Bank of the Republic of Turkey.

Gürsel, S., Uysal, G. and Kökkızıl, M. (2016). Regional Effects of the Minimum Wage Increase. Betam Research Brief, Bahçeşehir University.

International Labour Organization (2022). Global Wage Report 2022–23: The Impact of Inflation and COVID-19 on Wages and Purchasing Power. ILO, Geneva.

International Labour Organization (2024). Global Wage Report 2024–25: Is Wage Inequality Decreasing Globally? ILO, Geneva.