

Minimum Wages in a High-Inflation Economy: The case of Turkey

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Aim

- The impact of increases in **minimum wage in Turkey on inflation** (also on unemployment rate, capacity utilisation, trade balance).
- Post-Keynesian/Post-Kaleckian theoretical framework
- Empirical estimation using Structural Vector Autoregression (SVAR) models (monthly data for 2005 – 2024)
- Two distinct inflation measures:
 - Consumer Price Index (CPI) from TurkStat (TÜİK)
 - Cost-of-Living Index (CLI) from the İstanbul Chamber of Commerce (İTO).

Why are we concerned about minimum wages in Turkey?

- Authoritarian character of the Erdoğan regime => Reflected on labour movements
- AKP has consistently and arbitrarily used its authority to postpone strikes on the grounds that they threaten national security and public health (Çelik, 2022). By 2022, 87,000 workers participated in strikes, the number of workers whose strikes were postponed was approximately 2.5 times higher, at 194,000.
- Around $\frac{3}{4}$ of employees work between 50% and 150% of the minimum wage (2023) (DİSK-AR, 2025)
- Significant correlation between monthly growth in labour costs (in construction) and growth in minimum wages (0.99 for 2015-2024)

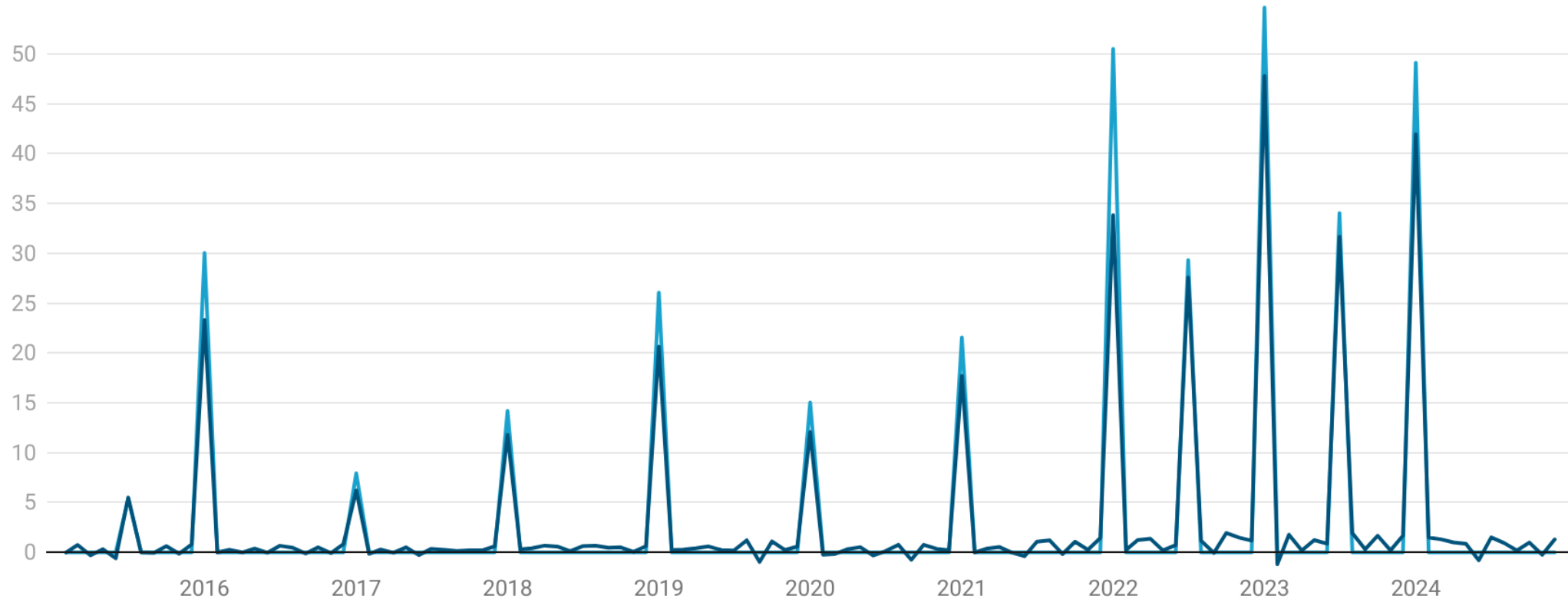
Minimum wages and wage levels in Turkey (2023)

Wage Levels	Estimated Number of Workers	Percentage
Approximately half of the minimum wage (4,500 TL) or less	1,518,174	8.7%
Minimum wage (9,950 TL) or less	7,594,463	43.6%
5% above the minimum wage (10,450 TL) or less	8,337,739	47.8%
10% above the minimum wage (10,950 TL) or less	8,519,201	48.9%
20% above the minimum wage (11,950 TL) or less	11,522,311	66.1%
50% above the minimum wage (14,932 TL) or less	14,491,823	83.1%
Up to 2 times the minimum wage (20,000 TL)	16,131,271	92.5%
More than 2 times the minimum wage	1,302,036	7.5%

Source: The Research Center of Confederation of Progressive Trade Unions of Turkey (DiSK-AR) (2025). Minimum Wage Report 2025

Monthly growth in minimum wage and labour cost index in construction (% , Feb 2015 - Dec 2024)

— Growth in minimum wage (monthly, %) — Growth in labour cost index (% , monthly, construction)

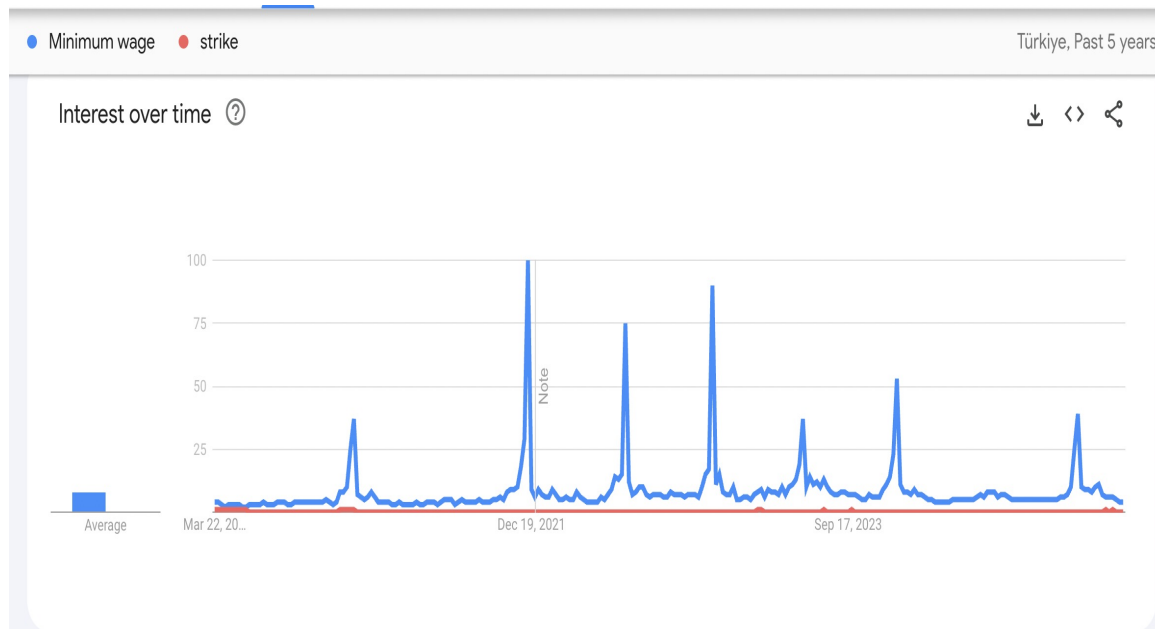


Note: Authors' calculations from Turkstat (2025) and Republic of Türkiye Ministry of Labour and Social Security (2024)

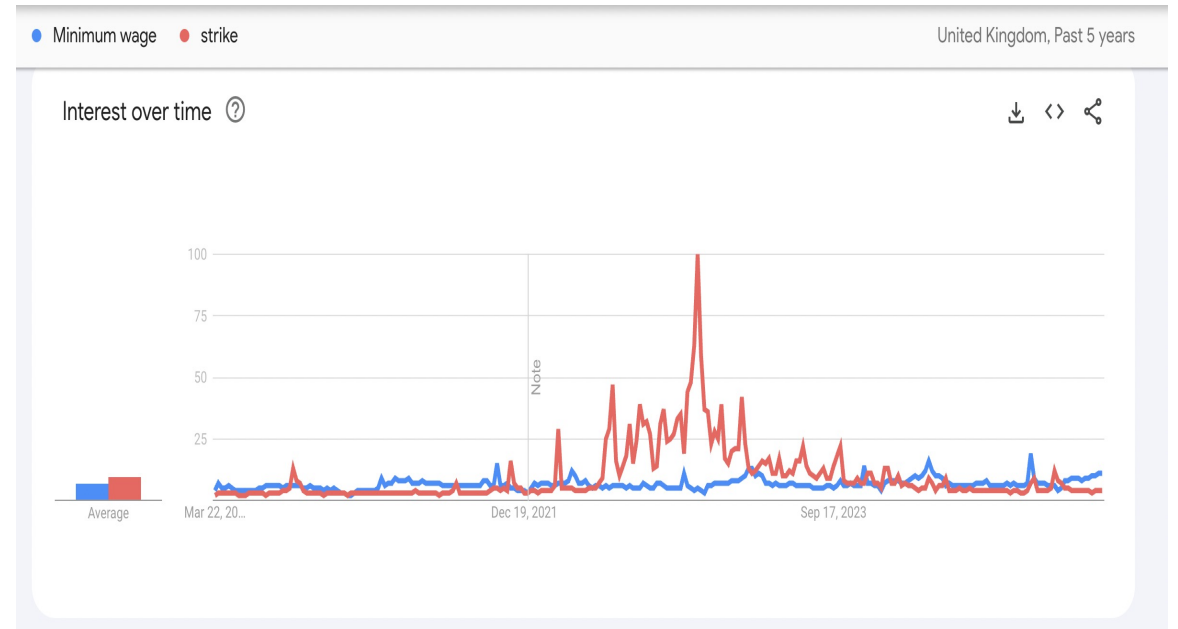
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Google trends (minimum wages vs. strike)

Turkey



United Kingdom



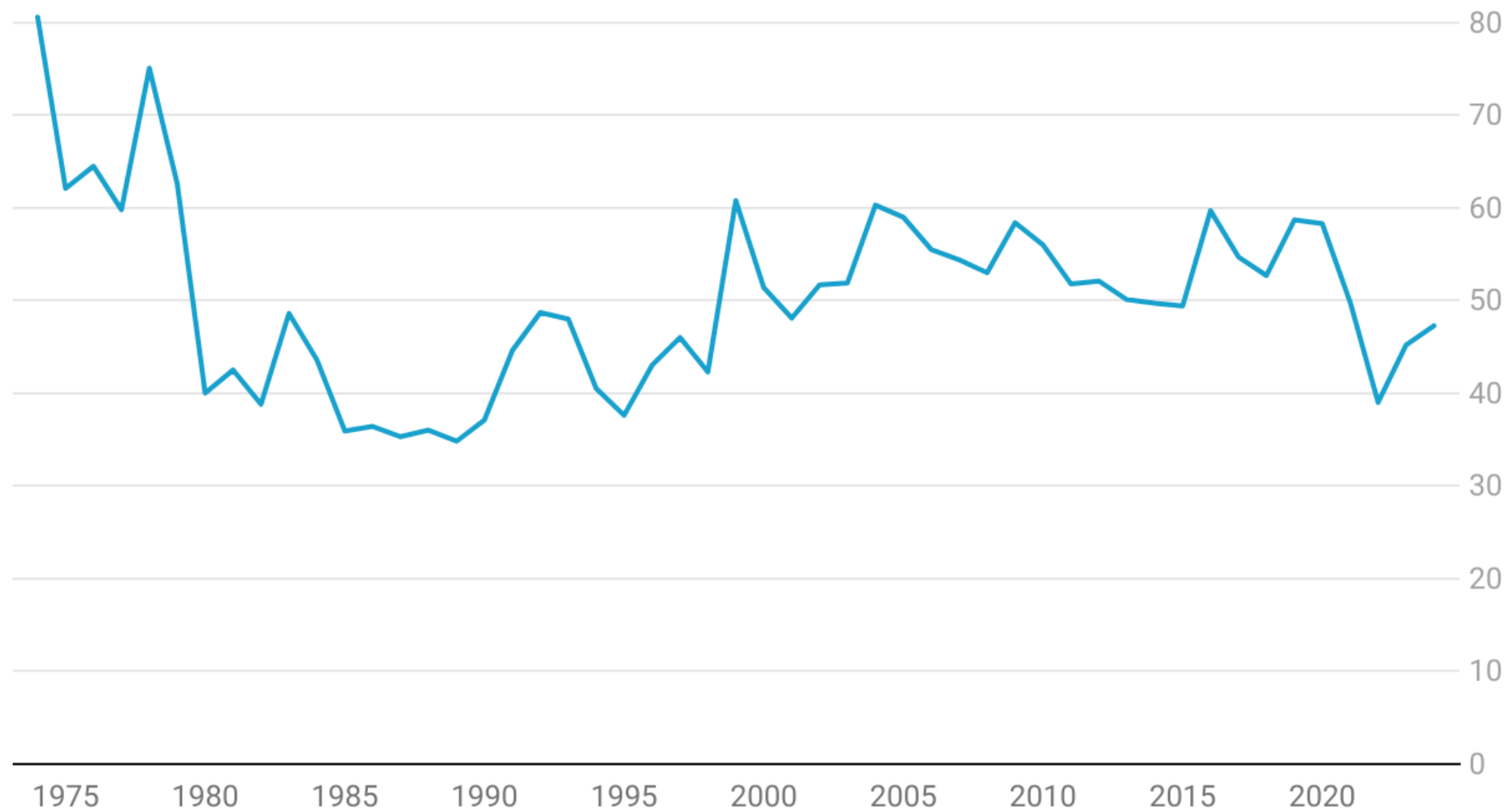
Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term.



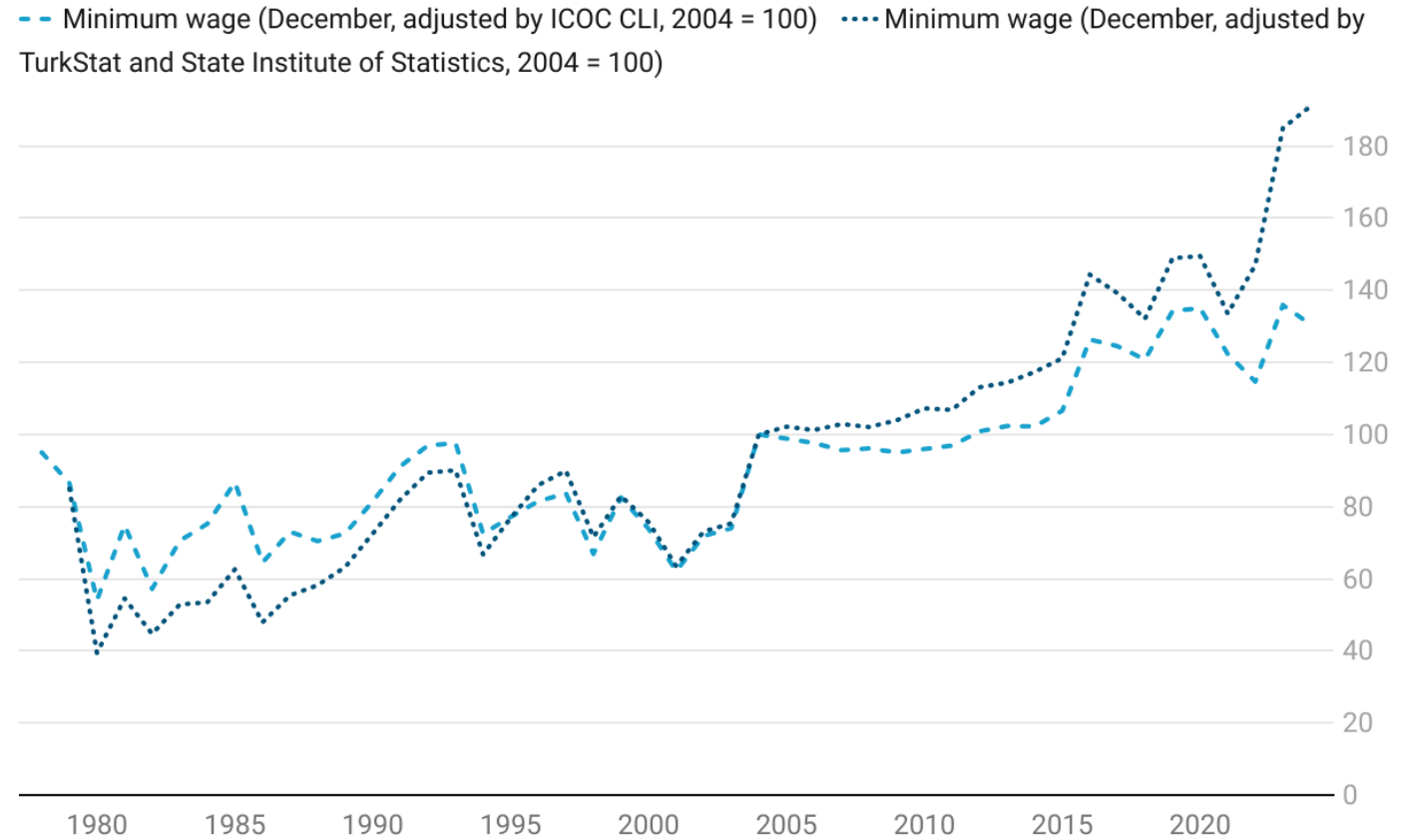
How is minimum wage determined?

- **Minimum Wage Determination Commission**
- Five government representatives (from the Ministry of Labour and Social Security and other relevant institutions)
- Five employer representatives
- Five worker representatives (typically from major labour unions like TÜRK-İŞ)

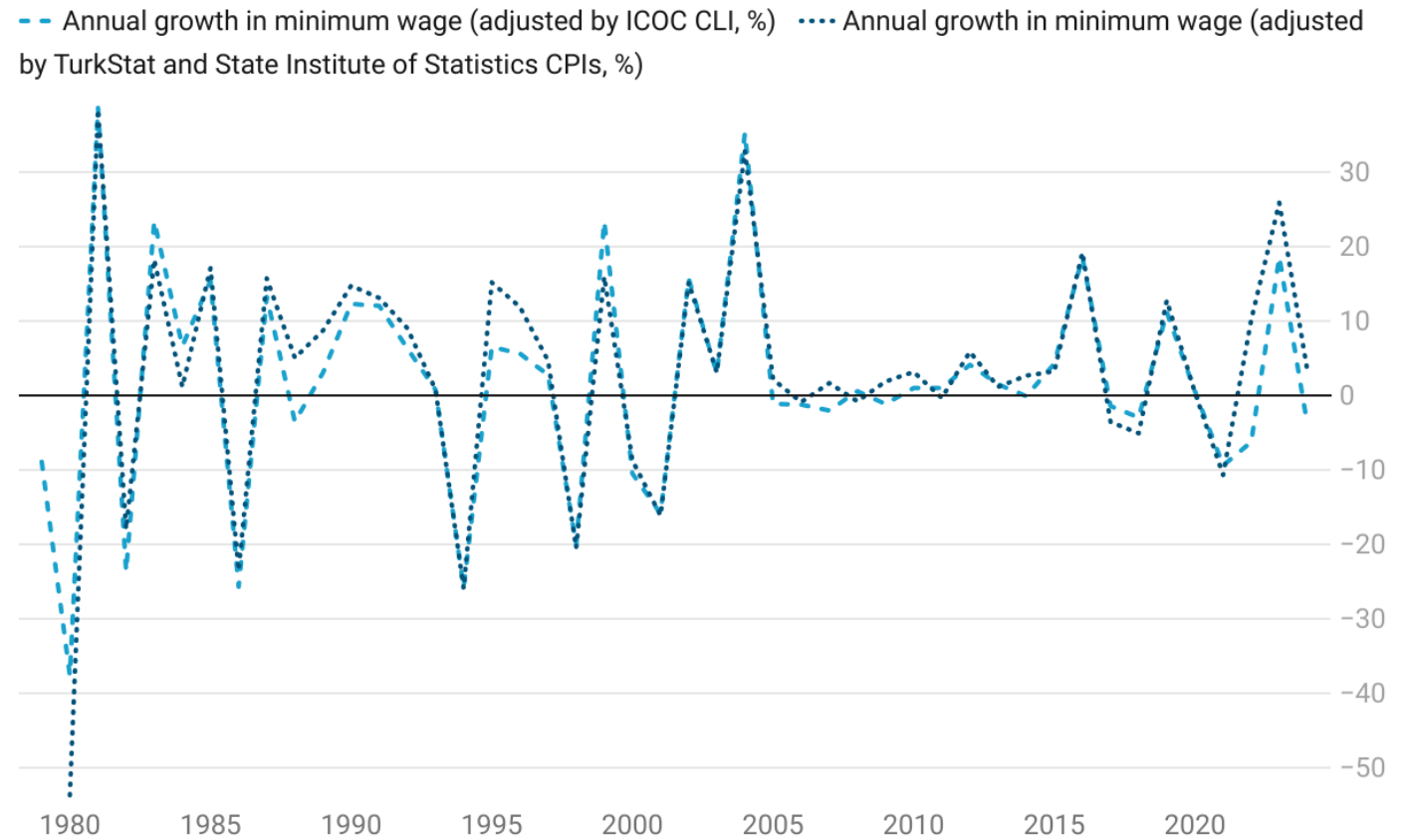
— Annual nominal minimum wage / GDP per capita (%)



Real net
minimum
wage per year
(December
2004 = 100)



Annual growth in real net minimum wage per year (%)



Inflation

- **Post Keynesian framework**
- Conflict inflation (worker-firm tensions over distribution, real-wage resistance)
- Profit-led inflation, seller's inflation
- Supply shocks (e.g. oil shock, supply bottlenecks) => Rising prices => Reflected on profits
- Currency depreciation (crucial for Türkiye)

Minimum wage hikes => Inflation

- **Cost channel**
- Direct influence of minimum wage on unit labour costs => Increase prices
- *However, these effects would be eased by*
- Reduction mark-ups
- MW => higher labour productivity => lower unit labour costs

Table 1: Proportion of Employees on Minimum Wage or Below by Selected Sectors, and Labor Intensity (% , 2017-2019 Average)

	Proportion of Employees on Minimum Wage or Below *	Personnel Cost/ Production Value
Non-Farm Sectors	42.8	13.0
Industry	50.0	8.9
Manufacturing Ind.	51.7	9.4
Textiles	58.9	11.0
Clothing	72.2	15.5
Leather	67.1	12.2
Furniture	54.4	15.9
Food Products	64.7	7.8
Petro. Products**	19.4	-
Motor Vehicles	24.0	7.1
Other Transport	18.7	13.4
Construction	53.9	9.1
Services	39.1	20.4
Wholesale&Ret.Trade	63.8	21.6
Transpo.&Storage	45.3	12.2
Accomo.&Rest. Ser.	71.6	24.4
Public Admi.**	5.1	-
Education	9.3	53.1
Finance&Insur.**	11.8	-

Source: Central Bank of the Republic of Türkiye (2021)

Minimum wage hikes => Inflation

- **Demand channel**
- **i)** Minimum wage => Aggregate demand (?)
- In the short run
- Consumption (+), Net exports (-), investments (?)
- **ii)** Higher aggregate demand
- Allow firms to increase markup
- Lower unemployment => higher wages => higher unit labour costs

Central Bank of the Republic of
Türkiye (CBRT) Deputy
Governor Cevdet Akçay's
(EBRD, 14 May 2025)

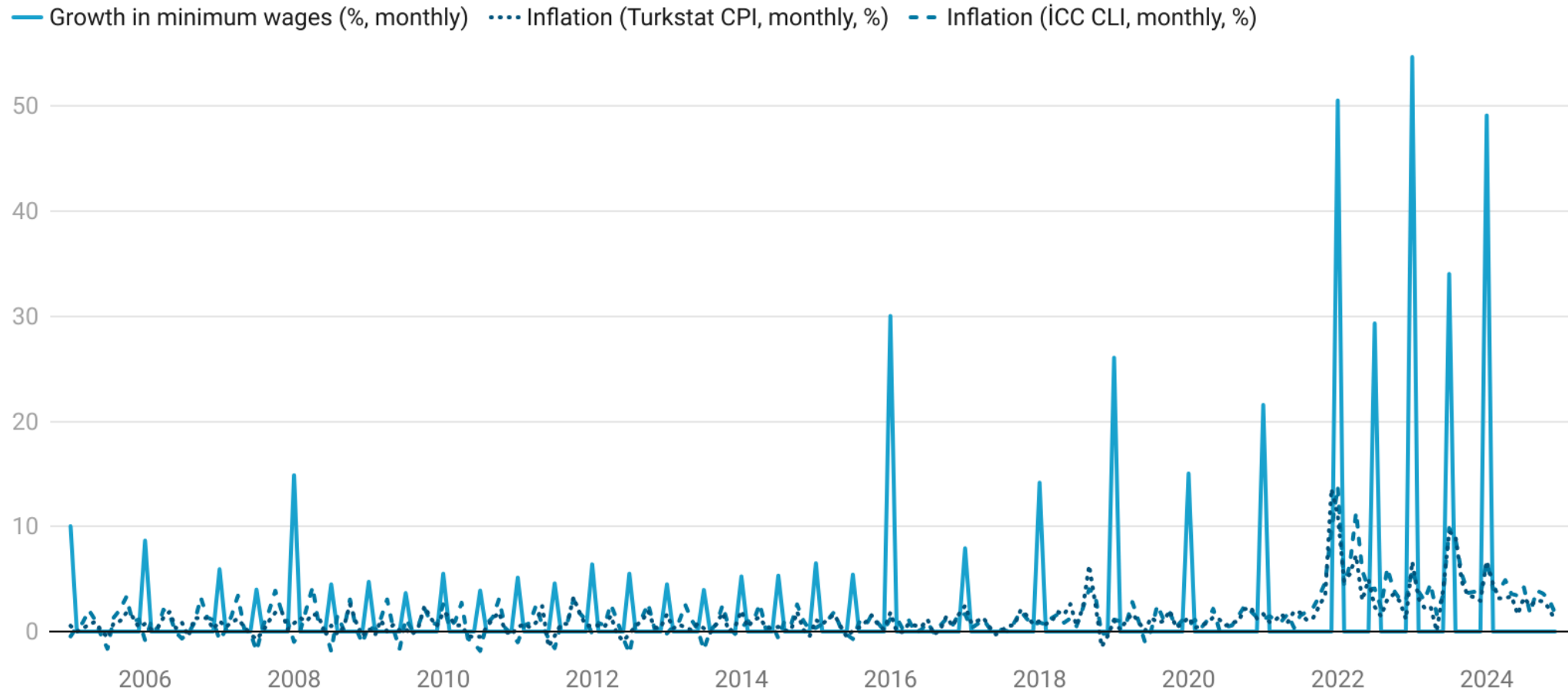
- *“In Turkey, there is no output-inflation tradeoff, which means ‘in order to bring inflation down, you have to sacrifice a lot on the output front’ or ‘if you want to grow faster it’s going to be costing a lot of inflation’ etc.. That tradeoff does not exist in Turkey”.*



Minimum wage hikes => Inflation

- **Trade balance channel**
- In the short run
- Higher minimum wage => Higher unit labour cost => Trade deficit
- *Could be eased by*
- Lower markups
- MW => higher labour productivity => lower unit labour costs
- Turkish Lira might not depreciate if financed by capital inflows, reserve assets of CBRT
- But constant trade deficits => Currency depreciation => Inflation.

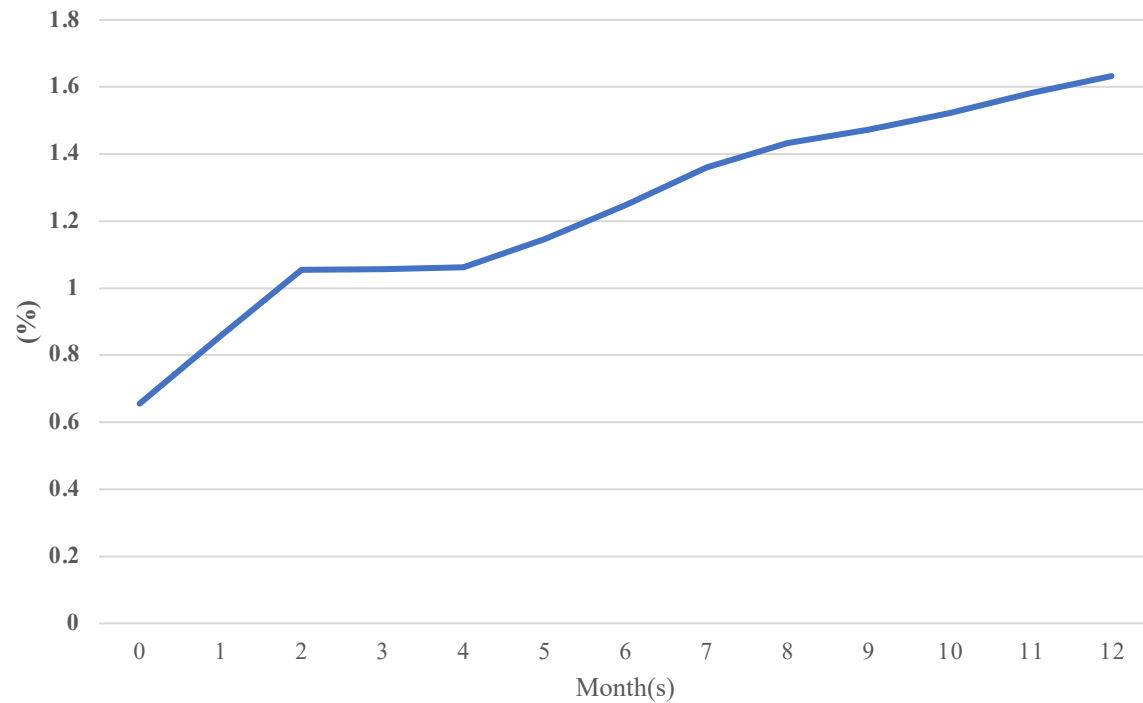
Monthly growth in minimum wages (%) and monthly inflation (% , Turkstat CPI, İstanbul Chamber of Commerce CLI, 2005-2024



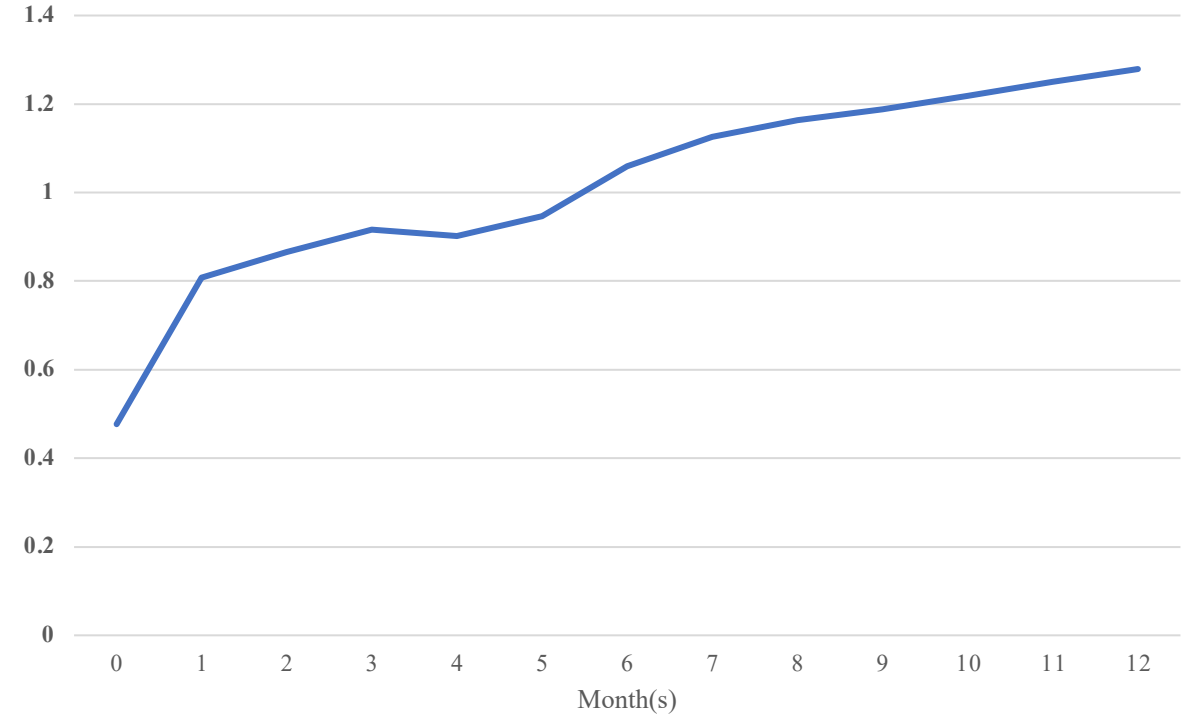
Source: Authors' calculations from data retrieved from Turkstat (2025), İstanbul Chamber of Commerce (2025) and Ministry of Labor and Social Security (2025).
• Created with Datawrapper

Our empirical estimates: The impact of 10% increase on minimum wages on percentage point increase in prices (ILO CLI, TURKSTAT CPI)

ILOC CLI



TURKSTAT CPI



How does MW affect inflation

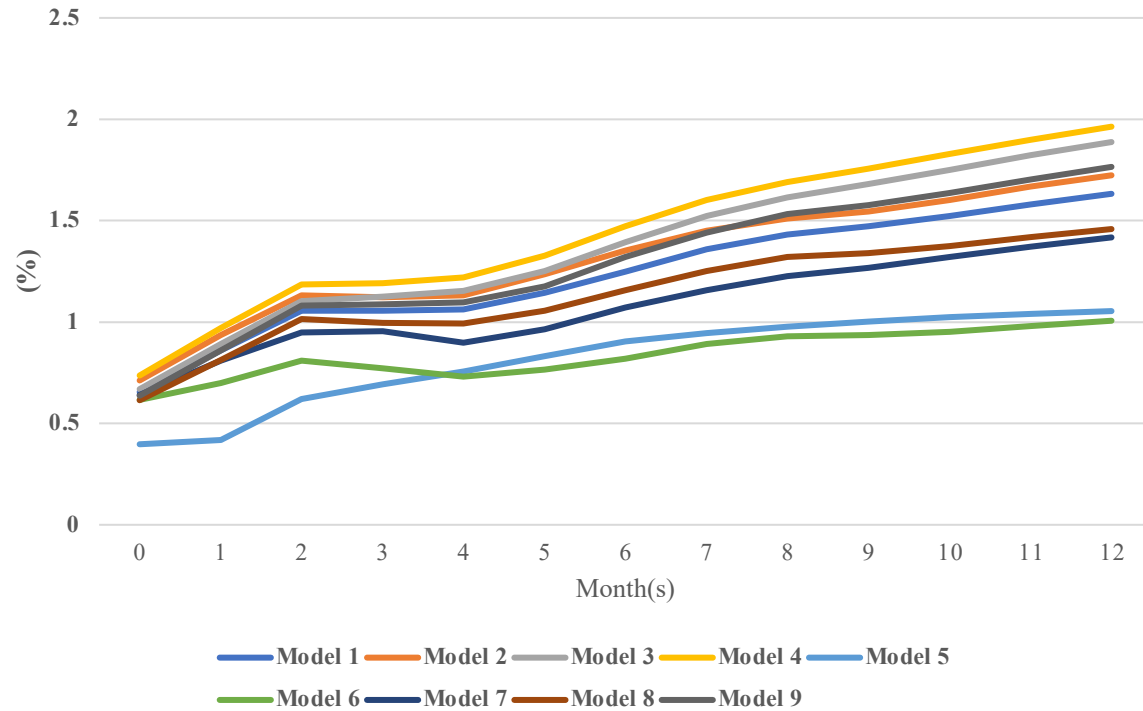
- **Weak evidence on demand channel**
- Impact of MW on capacity utilisation, industrial output and retail sales is insignificant and negligible
- Also insignificant affect from demand => inflation
- The effects in the short-run are possibly through **cost channel**.

Nine Empirical Models (AIC for number of lags)

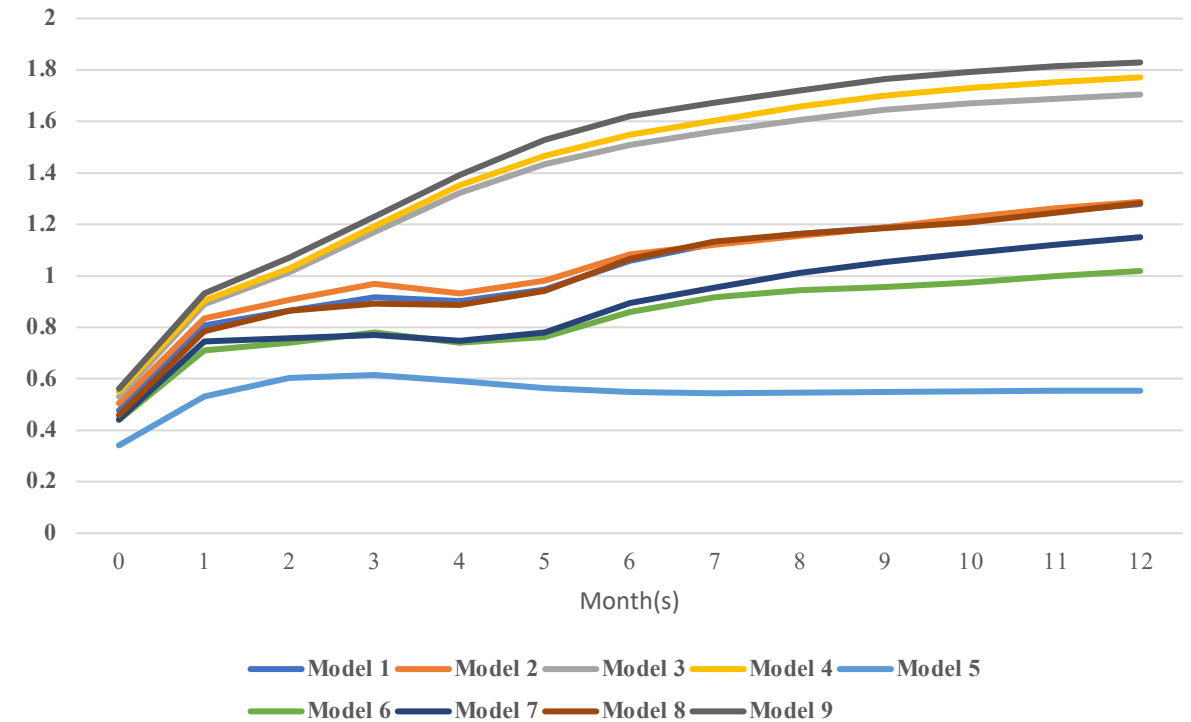
- **Model 1:** Main model as in Figure 1 (ICOC CLI and TURKSTAT CPI 4 lags)
- **Model 2:** $\Delta\log(\text{output industry})$ as demand variable (ICOC CLI and TURKSTAT CPI 4 lags)
- **Model 3:** Model 1 with changes in seasonally adjusted capacity u. and unemp (ICOC CLI 4 lags; TURKSTAT CPI 3 lags)
- **Model 4:** $\Delta\log(\text{output industry})$ as demand variable, seasonally adjusted output industry and unemp (ICOC CLI 4 lags; TURKSTAT CPI 3 lags)
- **Model 5:** Main model as in Figure 1, post-2018 (ICOC CLI 2 lags; TURKSTAT CPI 1 lag)
- **Model 6:** $\Delta\text{capacity}$ & Δunemp contemporaneously affect $\Delta\log(\text{USD/TRY})$ (ICOC CLI and TURKSTAT CPI 4 lags)
- **Model 7:** $\Delta\log(\text{retail sales volume})$ as demand variable (ICOC CLI and TURKSTAT CPI 4 lags)
- **Model 8:** Model with change in seasonally adjusted trade balance as in Figure 6 (ICOC CLI and TURKSTAT CPI 4 lags)
- **Model 9:** Model as in Figure 6 with changes in seasonally adjusted trade balance, capacity and unemp (ICOC CLI 4 lags; TURKSTAT CPI 3 lags)

The impact of 10% increase on minimum wages on percentage point increase in prices (ILOCLI, TURKSTAT CPI)

ILOCLI



TURKSTAT CPI



The impact of
10% increase
in minimum
wages on
trade balance

Impact of 10% increase in minimum wages on trade balance (million USD)				
	Model 8 (ICOC CLI)	Model 9 (ICOC CLI)	Model 8 (TURKSTAT CPI)	Model 9 (TURKSTAT CPI)
Contemporaneous	-456.9	-476.0	-447.0	-472.2
Quarterly	-922.2	-1025.9	-955.5	-1145.3
6 months	-938.0	-1268.9	-1066.0	-1672.1
Yearly	-949.8	-1961.6	-1180.4	-2340.3
Impact of 10% increase in minimum wages on trade balance (trade balance/GDP, %)				
	Model 8 (ICOC CLI)	Model 9 (ICOC CLI)	Model 8 (TURKSTAT CPI)	Model 9 (TURKSTAT CPI)
Contemporaneous	-0.05	-0.06	-0.05	-0.05
Quarter	-0.11	-0.12	-0.11	-0.13
6 months	-0.11	-0.15	-0.12	-0.19
Year	-0.11	-0.23	-0.14	-0.27

Note: Average GDP for 2007–2024 from World Bank (2025) are used in trade balance-to-GDP calculations.

Minimum wage hikes => Unemployment rate

- Significant literature on cases where minimum wages don't affect employment negatively. (Card and Krueger, 1995; Dube, 2019, Cengiz et al., 2019)
- Minimum wage hikes increase labour supply, while reducing turnover rates and associated costs for firms.
- VERY POPULAR TOPIC in economics
- For Türkiye, Gürcihan Yüncüler and Yüncüler (2016) and Işık et al. (2020) determine that higher minimum wages lead to greater informality but do not result in overall employment declines
- We also find
- A 10% rise in the minimum wage **increases unemployment rate only by 0.15 percentage points** within a year.

Conclusions

- **10% increase in the minimum wage raises annual inflation by 1 to 2 percentage points** within a year (1.6 ppt in our main model).
- **Insignificant and very small effect through demand-side factors** such as capacity utilization, industrial growth, or retail sales.
- According to our main model, a 10% rise in the minimum wage **increases unemployment rate only by 0.15 percentage points** within a year.
- 10% rise in the minimum wage leads to an increase in the trade deficit ranging from 950 million to 2.3 billion USD (**equivalent to 0.1% to 0.3% of average GDP**) within a year.