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The Ukrainian Migration Wave and the European Labor Market

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Nikhola Umarova

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Univ.-Prof. Philipp Schmidt-Dengler PhD

Zusammenfassung

Die russische Invasion der Ukraine 2022 löste die größte erzwungene Migration innerhalb Europas seit dem Zweiter Weltkrieg aus. Anders als frühere Flüchtlingskohorten erhielten Vertriebene aus der Ukraine im Rahmen der EU-Richtlinie über vorübergehenden Schutz unmittelbaren Zugang zum Arbeitsmarkt. Diese Arbeit untersucht die makroökonomischen Auswirkungen dieses plötzlichen demografischen Schocks auf den europäischen Arbeitsmarkt. Unter Verwendung vierteljährlicher länderspezifischer Paneldaten für 27 EU-Mitgliedstaaten sowie Norwegen und die Schweiz im Zeitraum von Q1 2018 bis Q4 2025 werden sowohl binäre als auch kontinuierliche Difference-in-Differences-(DiD)-Ansätze eingesetzt, um die aggregierten Arbeitsmarktreaktionen zu schätzen. Die Ergebnisse zeigen, dass der europäische Arbeitsmarkt den Anstieg des Arbeitskräfteangebots in erster Linie durch eine Verringerung der Arbeitsmarktanspannung (labor market tightness) und nicht durch eine Verdrängung einheimischer Arbeitskräfte absorbiert hat. Konkret weisen die kontinuierlichen DiD-Schätzungen darauf hin, dass ein Anstieg des Verhältnisses von Geflüchteten zur Bevölkerung um einen Prozentpunkt mit einem statistisch signifikanten Rückgang der Vakanzrate um etwa 0,16 bis 0,20 Prozentpunkte verbunden ist. Demgegenüber bleiben die Effekte auf die aggregierten Beschäftigungs- und Arbeitslosenquoten statistisch insignifikant. Diese Ergebnisse legen nahe, dass Volkswirtschaften im Kontext einer anfänglich hohen Arbeitskräftenachfrage und einer raschen rechtlichen Integration in der Lage sind, plötzliche großskalige Migrationsschocks durch die Besetzung bestehender offener Stellen zu absorbieren, ohne eine erhöhte Gesamtarbeitslosigkeit zu verursachen.

Abstract

The 2022 Russian invasion of Ukraine triggered the largest forced migration within Europe since the Second World War. Unlike previous refugee cohorts, displaced Ukrainians were granted immediate labor market access under the EU Temporary Protection Directive. This thesis examines the macroeconomic impact of this sudden demographic shock on the European labor market. Utilizing quarterly country-level panel data for 27 EU member states, Norway, and Switzerland from 2018-Q1 to 2025-Q4, the study employs both binary and continuous Difference-in-Differences (DiD) frameworks to estimate aggregate labor market responses. The findings reveal that the European labor market absorbed the labor supply shock primarily through a reduction in labor market tightness rather than the displacement of native workers. Specifically, continuous DiD estimates indicate that a 1 percentage point increase in the refugee-to-population ratio is associated with a statistically significant decrease in the job vacancy rate of approximately 0.16 to 0.20 percentage points. Conversely, the effects on aggregate employment and unemployment rates remained statistically insignificant. These results suggest that in the context of high initial labor demand and rapid legal integration, economies can absorb sudden, large-scale migration shocks by filling existing vacancies without generating aggregate unemployment.

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1 Introduction

1.1 Motivation:

Russia's full-scale invasion of Ukraine in February 2022 triggered the largest refugee movement in Europe since the Second World War. Within a short period, millions of Ukrainians left their homes and sought safety across European countries, with a large share entering European Union member states. Because the EU granted displaced Ukrainians immediate access to temporary protection and, in many cases, rapid access to employment, the refugee wave quickly became not only a humanitarian issue but also an economic and labor-market issue.

The economic impact of this movement is double for host-country policymakers. While a demographic shift of this scale risks saturating specific job markets and depressing wages for native workers, the context of 2022 is unique. Because much of Europe was already facing severe labor scarcity and a reduction working-age population, the arrival of displaced Ukrainians offered a potential solution to persistent vacancies. Whether the inflow exacerbated competition or solved existing shortages remains the central tension of the current market conditions.

Empirical evidence detailing the Ukrainian refugee wave's effect on European labor markets remains insufficient, particularly at a high-frequency, quarterly level. Much of the existing literature focuses on earlier refugee episodes, single-country case studies, or lower-frequency data. This leaves an important gap in understanding how the post-2022 Ukrainian inflows affected labor-market dynamics across EU countries in the short run.

Motivated by these competing economic dynamics, this thesis investigates how the post-2022 Ukrainian refugee influx impacted aggregate labour-market outcomes across the European Union. By focusing on employment, unemployment, and job vacancies, it aims to provide a broad picture of how receiving economies adjusted after the outbreak of the war.

1.2 Research question:

The central research question of this thesis is whether the post-2022 inflow of displaced Ukrainians affected aggregate labour-market outcomes in European host countries. Specifically, this research investigates whether key labour-market indicators—employment, unemployment, and job vacancies—diverged between highly exposed and less exposed host countries following the 2022 influx. This analysis employs both binary and continuous measures of refugee exposure to map how European economies absorb sudden, large-scale demographic shocks in the short run.

1 Introduction

These questions reflect the empirical scope of the thesis. The goal is not to identify individual-level effects or to determine which specific demographic groups gained or lost, but rather to estimate average country-level labour-market responses in the short run after 2022. This focus is consistent with the structure of the Eurostat-based country-quarter panel used in the empirical analysis.

1.3 Contribution

This thesis advances the literature in four specific ways. First, it studies the labour-market consequences of the Ukrainian refugee inflow using quarterly country-level panel data, which makes it possible to observe short-run developments around the 2022 shock more closely than would be possible with annual data. Because the refugee inflow occurred suddenly and labour-market access under temporary protection was relatively fast, quarterly data are especially well suited to the research question.

Second, the thesis examines a refugee episode that was triggered by an external geopolitical shock rather than by ordinary economic migration. This makes the Ukrainian case a useful setting for studying how host-country labour markets adjust to a large and abrupt increase in refugee arrivals.

Third, the empirical analysis combines two related difference-in-differences approaches. The first uses a binary treatment design that compares more exposed and less exposed countries after 2022. The second uses a continuous exposure measure based on the intensity of temporary-protection beneficiaries relative to population. This dual approach allows the thesis to compare a simple treatment classification with a more flexible measure of refugee intensity.

Fourth, the thesis considers several labour-market outcomes. By examining employment, unemployment, and job vacancies together, the analysis captures different margins of aggregate labour-market adjustment. In this way, the thesis contributes to the debate on whether refugee inflows primarily create labour-market pressure or whether they may also interact with pre-existing labour shortages in receiving economies

1.4 Roadmap of the thesis

The remainder of the thesis is structured as follows. Chapter 2 presents the institutional background and reviews the relevant literature on migration, forced displacement, and labour-market adjustment. Chapter 3 describes the Eurostat-based country-quarter panel, defines the main variables, and presents the descriptive evidence. Chapter 4 sets out the empirical strategy, including the binary and continuous difference-in-differences specifications. Chapter 5 presents the main results, interprets the estimated effects, and discusses robustness checks. Chapter 6 concludes by summarizing the main findings, drawing out their policy relevance, and discussing the limitations of the analysis together with directions for future research.

2 Institutional Background and Literature Review

2.1 Ukrainian refugee inflows after 2022:

Russia's full-scale invasion of Ukraine began on 24 February 2022. In response to the war, millions of people fled Ukraine, creating the largest displacement crisis in Europe in decades. Official UNHCR reporting defines refugees from Ukraine as people who fled on or after 24 February 2022 and are currently present in host countries under temporary protection, international protection, or other protection-related stay arrangements. For the European Union, the most consistent official measure is the number of people under temporary protection. Eurostat reports that, at the end of January 2026, 4.38 million non-EU citizens who had fled Ukraine were under temporary protection in the EU, and 98.4% of them were Ukrainian citizens. This shows that the refugee inflow was not a short-lived emergency only in early 2022, but a large and persistent presence across EU member states several years after the start of the war.

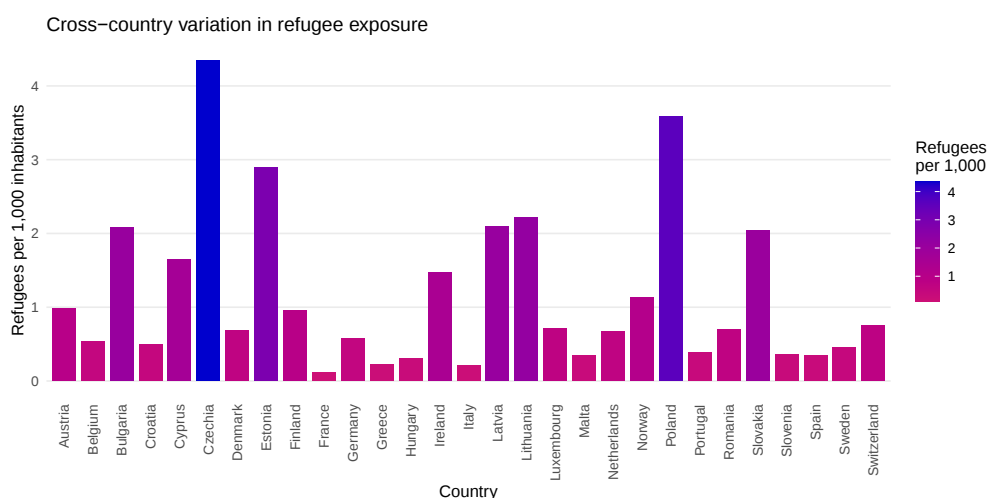


Figure 2.1: Cross-country variation in refugee exposure.

Note: The figure shows refugee exposure measured as the number of Ukrainians under temporary protection per 1,000 inhabitants across sample countries. Exposure is concentrated in a relatively small set of host countries, especially in Central and Eastern Europe.

These figure establish several several underlying patterns. Specifically, the refugee inflow began directly after the invasion, rapidly scaling into a massive demographic shift

that proved highly asymmetric across member states

2.2 EU temporary protection framework:

The legal basis for the EU response was the Temporary Protection Directive, which the Council activated on 4 March 2022 for people fleeing the war in Ukraine. Fundamentally, temporary protection is an emergency mechanism used when many displaced people arrive at once and national asylum systems would struggle to process individual claims quickly enough. Instead of requiring everyone to go through the standard asylum procedure first, the system grants immediate and collective protection.

Temporary protection gives beneficiaries a common set of rights across the EU. These rights include residence, access to housing, medical assistance, education for children, and access to the labour market. Because protection is granted collectively and without waiting for individual asylum decisions, Ukrainians covered by the scheme were able to enter host-country labour markets much faster than under ordinary asylum procedures. EU guidance also explicitly states that people under temporary protection should be able to engage in employed or self-employed activities and that member states should implement these provisions urgently so that arrivals can start working as soon as possible.

Consequently, the Ukrainian influx represented both a humanitarian crisis and an immediate labour-supply shock. Because beneficiaries could work almost immediately, the framework structurally enabled rapid, large-scale labour-market entry across the EU.

2.3 Literature on migration and labor markets:

A large body of research examines how immigration affects the labour-market outcomes of native workers. In standard economic models, an increase in labour supply may reduce wages or employment for natives who are close substitutes for immigrants, while creating complementary effects for other groups and sectors. Results differ across studies. As [Dustmann et al., 2016] argue, differences in results often reflect differences in empirical design, level of aggregation, and the specific parameter being estimated rather than a simple contradiction in the underlying evidence. Empirical evidence indicates that the baseline effects of immigration on native labor-market outcomes are fundamentally small, though these impacts fluctuate sharply across different worker demographics and institutional settings.

An important part of this literature focuses on forced migration. Unlike voluntary economic migration, refugee movements are typically driven by war or political shocks and are therefore less closely linked to economic conditions in receiving countries. For that reason, refugee inflows often provide useful quasi-experimental settings for identifying labour-market effects. Evidence from the Syrian refugee inflow into Turkey shows that the overall wage effects on natives were limited in the short run, but that employment effects were concentrated in particular labour-market segments, especially informal work and disadvantaged groups such as women, younger workers, and the less educated [Ceritoglu et al., 2017]. In the European context, Angrist and Kugler [2003] show that labour-market

2.4 Positioning of This Study:

institutions matter greatly for how immigration shocks are absorbed. Their findings suggest that more rigid labour and product markets may amplify negative employment effects, even when average impacts remain relatively small.

Recent research on the displacement from Ukraine highlights that the post-2022 episode differs in important ways from earlier refugee movements. Ukrainian refugees received comparatively rapid access to residence and employment under the EU temporary protection framework, which meant that the refugee shock could affect host-country labour markets more quickly than in standard asylum settings. At the same time, cross-country outcomes have varied widely. Comparative evidence indicates that labour-market integration depends not only on the characteristics of refugees themselves, but also on host-country conditions such as labour demand, childcare availability, healthcare access, social networks, language environment, and the broader integration strategy pursued by receiving states ([[Kosyakova et al., 2024](#)]).

The emerging causal evidence on Ukrainian refugees also points to limited average short-run effects on native workers, while still allowing for heterogeneous adjustment across groups and margins. Using micro-level data for Czech Republic, [Postepska and Voloshyna \[2025\]](#) find no economically meaningful average effects on native employment, unemployment, or inactivity in the short run. However, they do find an increase in weekly working hours among some local workers, particularly women with secondary education. This result suggests that refugee inflows may generate a combination of competitive and complementary effects, depending on the structure of the local labour market and the characteristics of the workers involved.

The existing evidence makes it clear that labour-market responses to migration diverge sharply based on local economic conditions. Although average effects are generally modest, the impact of any influx depends strictly on the host country's institutional context and pre-existing economic conditions.

2.4 Positioning of This Study:

Existing research therefore shows that migration shocks often have limited average effects on native labour-market outcomes, but that these effects differ across institutional settings, labour-market structures, and worker groups. However, there is a distinct lack of empirical data regarding the immediate macroeconomic adjustments triggered by the post-2022 Ukrainian refugee wave across the broader EU. Much of the available evidence either studies earlier refugee episodes, focuses on single-country case studies, or examines refugee integration rather than broader cross-country labour-market adjustment. To evaluate these short-run dynamics, the present analysis applies quarterly methodological context and previous findings. Entry-level panel data for EU countries and by combining binary and continuous difference-in-differences approaches to examine employment, unemployment, and job vacancies after 2022.

2.5 Methodological Context and Previous Findings:

A central finding of this thesis is that the European labor market primarily absorbed the shock of the Ukrainian refugee influx through a reduction in labor market tightness—specifically via a decrease in job vacancies—rather than through a massive spike in native unemployment. This result stands in contrast to previous literature analyzing sudden migration shocks. For example, studies examining the 2015 Syrian refugee wave frequently observed short-term spikes in unemployment within specific local labor markets as native workers and newly arrived refugees competed for available jobs [Fasani et al., 2018]. The divergence in these findings can likely be attributed to two main factors. First, from a policy perspective, the activation of the EU Temporary Protection Directive in 2022 granted Ukrainian displaced persons immediate access to the labor market, bypassing the lengthy asylum procedures and employment bans that historically hindered the integration of previous refugee cohorts. Second, from an empirical perspective, this thesis utilizes aggregate country-quarter panel data. While this captures broader macroeconomic adjustments—such as firms adjusting their vacancy postings in response to an expanded labor pool—it naturally averages out the localized, micro-level displacement effects often captured in municipality-level studies.

To accurately identify these aggregate labor market responses, this thesis employs both binary and continuous Difference-in-Differences (DiD) specifications. The precedent for treating sudden, exogenous refugee influxes as a binary treatment was famously established by Card [1990] in his seminal analysis of the Mariel Boatlift, where he compared the labor market outcomes of the treated city (Miami) against a control group of four unaffected comparable cities. More recently, (in the published version of this paper) in the context of European refugee crises, [Fasani et al., 2022] successfully applied binary variations of high versus low refugee exposure across European regions to estimate the labor market integration and impacts of forced migrants. By adopting this binary specification, this thesis aligns with established practices for isolating the causal effect of a sudden demographic shock.

However, because the Ukrainian migration wave affected virtually all European countries to varying degrees, a strict binary categorization may obscure the nuanced economic realities of the shock. To address this, the empirical strategy is expanded to include a continuous DiD model. Integrating this continuous measure allows the analysis to capture the full spectrum of demographic exposure rather than a simplified average. This approach is standard in modern spatial correlation literature, which frequently relies on continuous variations of immigrant inflows across different geographic areas to identify labor market impacts [Dustmann et al., 2016]. For instance, Foged and Peri [2016] utilize a continuous treatment variable—the share of refugees across different Danish municipalities over time—to accurately measure the localized wage and employment effects on native workers. By employing a continuous measure such as refugees per 1,000 inhabitants, this thesis leverages the varying intensity of the Ukrainian influx across Europe, providing a more precise and robust estimation of the resulting macroeconomic adjustments.

3 Data and Descriptive Analysis

3.1 Data sources and panel construction:

The unit of observation is a country–quarter, which makes it possible to follow labour-market developments at relatively high frequency around the 2022 refugee shock while still keeping a broad cross-country perspective. In the thesis design, the sample runs from 2018 to 2025, and all series are aligned to a common quarterly grid; monthly series are aggregated at quarters, and variables observed at lower frequency are harmonized to the same time structure so that outcomes, exposure, and controls can be merged into one consistent panel.

The outcome variables come from Eurostat labour-market data [Eurostat, 2023d,c,b,a,e]. Employment and unemployment are drawn from Eurostat Labour Force Survey series, while job vacancies are taken from Eurostat vacancy statistics. Refugee exposure is constructed from Eurostat data on beneficiaries of temporary protection, combined with population data to express the inflow in per-capita terms. The macroeconomic controls also come from Eurostat and include real GDP growth, HICP inflation, and sector-composition measures capturing the structure of employment across major sectors. In this way, the final dataset combines labour-market outcomes, refugee exposure, population denominators, and macro controls in a single country–quarter panel.

In this setting, quarterly data are particularly valuable for two reasons. Primarily, the Ukrainian refugee inflow was sudden, so annual data would hide much of the short-run timing that is central to the identification strategy. Furthermore, quarterly frequency increases the number of within-country observations, which is valuable for later difference-in-differences estimation and for checking whether visible changes around 2022 reflect a genuine break or just normal year-to-year noise. This logic is also consistent with refugee quasi-experiments in the literature, which often rely on quarter-based panels to capture rapid post-shock adjustment.

In practical terms, the panel is close to balanced for the main labour-market outcomes and inflation, while some series contain fewer observations because of source availability. The descriptive tables report 899 country–quarter observations for employment, unemployment, the post dummy, and inflation, fewer observations for vacancies and GDP growth, and a smaller number for the exposure variable, reflecting the fact that refugee-intensity data are concentrated in the post-2022 period.

To make the empirical design transparent, the country sample and the treatment classification are summarized in Table 3.1.

3 Data and Descriptive Analysis

Table 3.1: Treatment classification and refugee exposure across EU countries

Country	Mean exposure (per 1000)	Max exposure (per 1000)	Exposure quantile	High exposure (1 = top quartile)	Treated
Czechia	4.35	23.72	1.00	1	1
Poland	3.59	18.30	1.00	1	1
Estonia	2.89	11.13	0.90	1	1
Lithuania	2.22	16.33	0.90	1	1
Latvia	2.10	8.89	0.90	1	1
Bulgaria	2.08	13.61	0.80	1	1
Slovakia	2.04	10.81	0.80	1	1
Cyprus	1.65	8.66	0.80	1	1
Ireland	1.47	5.17	0.70	0	0
Norway	1.13	2.79	0.70	0	0
Austria	0.98	4.54	0.60	0	0
Finland	0.96	4.58	0.60	0	0
Switzerland	0.75	4.64	0.60	0	0
Luxembourg	0.71	4.83	0.50	0	0
Romania	0.70	2.19	0.50	0	0
Denmark	0.68	4.06	0.50	0	0
Netherlands	0.67	2.64	0.40	0	0
Germany	0.58	1.37	0.40	0	0
Belgium	0.53	2.23	0.40	0	0
Croatia	0.50	2.62	0.30	0	0
Sweden	0.46	1.76	0.30	0	0
Portugal	0.38	2.30	0.20	0	0
Slovenia	0.36	2.28	0.20	0	0
Spain	0.34	1.95	0.20	0	0
Malta	0.34	1.91	0.10	0	0
Hungary	0.31	2.05	0.10	0	0
Greece	0.23	1.58	0.10	0	0
Italy	0.21	1.37	0.00	0	0
France	0.11	0.53	0.00	0	0

3.2 Variable definitions:

Labor-market outcomes. Labor-market outcomes include the employment rate (share of the population aged 15–64 that is employed), the unemployment rate (share of the labor force aged 15–74 that is unemployed), and the job-vacancy rate (share of vacant jobs in total labor demand).

Exposure variable. Refugee exposure is measured as the number of Ukrainians under

3.3 Descriptive statistics:

temporary protection per 1,000 inhabitants in each country and quarter.

Treatment indicator. The treatment indicator is a binary variable equal to one for countries with high exposure to Ukrainian refugee inflows after 2022 and zero for countries with relatively low exposure.

Post-2022 dummy. The post-2022 dummy equals one for all quarters from 2022-Q1 onward and zero for the pre-war period from 2018-Q1 to 2021-Q4.

Control variables. Control variables include real GDP growth, annual inflation measured by the HICP, and sectoral composition captured by the shares of employment in industry, services, and construction.

3.3 Descriptive statistics:

Table 3.2 presents descriptive statistics for the main variables used in the binary difference-in-differences specification.

Table 3.2: Descriptive Statistics (Model 1).

Variable	Mean	SD	Min	Max	Observations
Employment rate (%)	71.21	5.73	49.80	82.60	928
Unemployment rate (%)	4.03	1.71	1.30	12.30	928
Job vacancy rate (%)	2.13	1.13	0.30	6.30	895
Post 2022 period	0.50	0.50	0.00	1.00	928
Treated country (1=high exposure)	0.28	0.45	0.00	1.00	928
GDP growth (%)	2.25	3.76	-10.90	16.30	928
Inflation (HICP, %)	3.70	3.97	-2.27	25.87	928

Note: The table reports summary statistics for the main labour-market outcomes and control variables used in the binary treatment specification.

The summary statistics show a labour-market panel with relatively strong average employment, comparatively low average unemployment, and moderate vacancy rates. Across all country–quarter observations, employment is centered a little above 71 percent, unemployment around 4 percent, and vacancies a little above 2 percent. These averages already suggest that the sample is not dominated by weak labour markets; instead, it covers economies that, on average, entered the post-2022 period with reasonably positive aggregate circumstances.

At the same time, the dispersion is substantial. Employment ranges from below 50 percent to above 82 percent, unemployment from just above 1 percent to above 12 percent, and vacancy rates from near zero to above 6 percent. This variation highlights significant differences across countries and quarters, providing the required cross-sectional and time options for the subsequent difference-in-differences estimation. The control variables also vary widely, especially GDP growth and inflation, reflecting major macroeconomic differences across countries and over time.

3 Data and Descriptive Analysis

The exposure variable is even more unevenly distributed. Its mean is modest relative to the maximum, and the standard deviation is large compared with the mean, which points to a strongly asymmetric distribution. This asymmetric distribution shows that the data is mostly concentrated in certain geographic areas of the demographic shock: while many observations record negligible Ukrainian exposure, the reception burden is heavily clustered in a limited set of host countries.

Because the continuous-treatment specification relies directly on the refugee-exposure measure, Table 3.3 reports descriptive statistics for the country-quarter panel used in Model 2.

Table 3.3: Descriptive Statistics (Country - Quarter Panel, Model 2).

Variable	Mean	SD	Min	Max	Observations
Employment rate (%)	71.21	5.73	49.80	82.60	928
Unemployment rate (%)	4.03	1.71	1.30	12.30	928
Job vacancy rate (%)	2.13	1.13	0.30	6.30	895
Ukrainians per capita	1.15	2.27	0.00	23.72	928
Post 2022 period	0.50	0.50	0.00	1.00	928
Treated country (1=high exposure)	0.28	0.45	0.00	1.00	928
GDP growth (%)	2.25	3.76	-10.90	16.30	928
Inflation (HICP, %)	3.70	3.97	-2.27	25.87	928
Share service (%)	0.73	0.09	0.48	0.95	924
Share agriculture (%)	0.04	0.03	0.00	0.21	924
Share industry (%)	0.23	0.07	0.04	0.38	924

Note: The table reports summary statistics for the country-quarter panel used in the continuous-treatment specification, including the refugee exposure measure and additional controls.

The cross-country exposure table confirms this concentration. Czechia and Poland appear at the top of the exposure distribution, followed by a group of relatively highly exposed countries in Central and Eastern Europe and the Baltics, while countries such as France, Greece, Italy, Portugal, and Spain remain at the lower end. This distribution is important because it creates the contrast used later in both the binary and continuous specifications: some countries face very strong refugee inflows, while others experience much more limited exposure. The exposure pattern reported earlier in Table 3.1 confirms this concentration.

A final descriptive point concerns panel structure. The labour-market outcomes are available for almost the full panel, but vacancies, GDP, and especially refugee exposure have fewer recorded observations. This does not undermine the descriptive picture, but it does mean the panel is not perfectly balanced across every variable, and later regressions are estimated on slightly different samples depending on the outcome and specification

3.4 Time-series plots and comparisons

The time-series figures (in Figure 3.1) provide a first visual impression of how labour-market outcomes evolved over the sample period. The employment series shows the clearest disruption around the pandemic years, with a visible dip in 2020 followed by recovery. Around 2022, there is no obvious collapse in aggregate employment; instead, the dominant visual pattern is continued normalization after the pandemic shock. Unemployment shows the mirror image, with a temporary increase around 2020 and then a decline, while job vacancies rise during the recovery period and remain an important source of cross-country variation into the post-2022 years.

The exposure plots show two descriptive facts particularly clearly. First, refugee exposure becomes a salient feature of the panel from 2022 onward. Second, that exposure is very uneven across countries. The cross-country comparison makes clear that the refugee shock is concentrated in a relatively small set of host countries rather than evenly distributed across Europe. This matters because the later DiD analysis relies on exactly this uneven intensity of exposure.

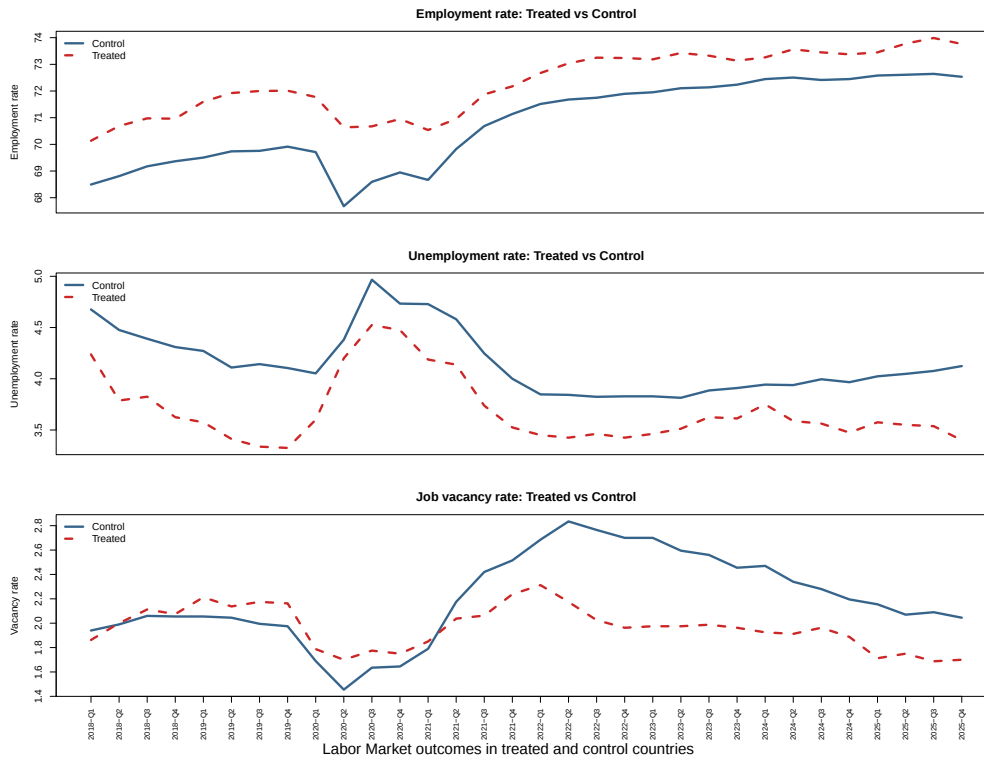


Figure 3.1: Labour Market outcomes in treated and control countries.

Note: The figure plots quarterly employment, unemployment, and job-vacancy rates for treated and control countries from 2018-Q1 to 2025-Q4. This visualization provides a first descriptive impression of how labour-market trajectories evolved using a binary classification, where “treated” represents countries in the top quartile of refugee exposure as defined in Table 3.1.

3 Data and Descriptive Analysis

Comparing high- and low-exposure countries, the plotted series suggest that high-exposure countries generally begin from somewhat stronger labour-market positions. Their employment rates are typically higher, their unemployment rates lower, and their vacancy rates often different in level from those of the low-exposure group. Both groups are affected by the pandemic disruption, but the broad ranking between them remains fairly stable over much of the sample. Around 2022, the main visible difference is not a sharp reversal in employment or unemployment, but rather a change in the vacancy profile and a continuation of pre-existing level differences.

Figure 3.2 presents the same descriptive comparison using exposure-intensity groups, highlighting how labour-market trajectories differ between high- and low-exposure countries over time.

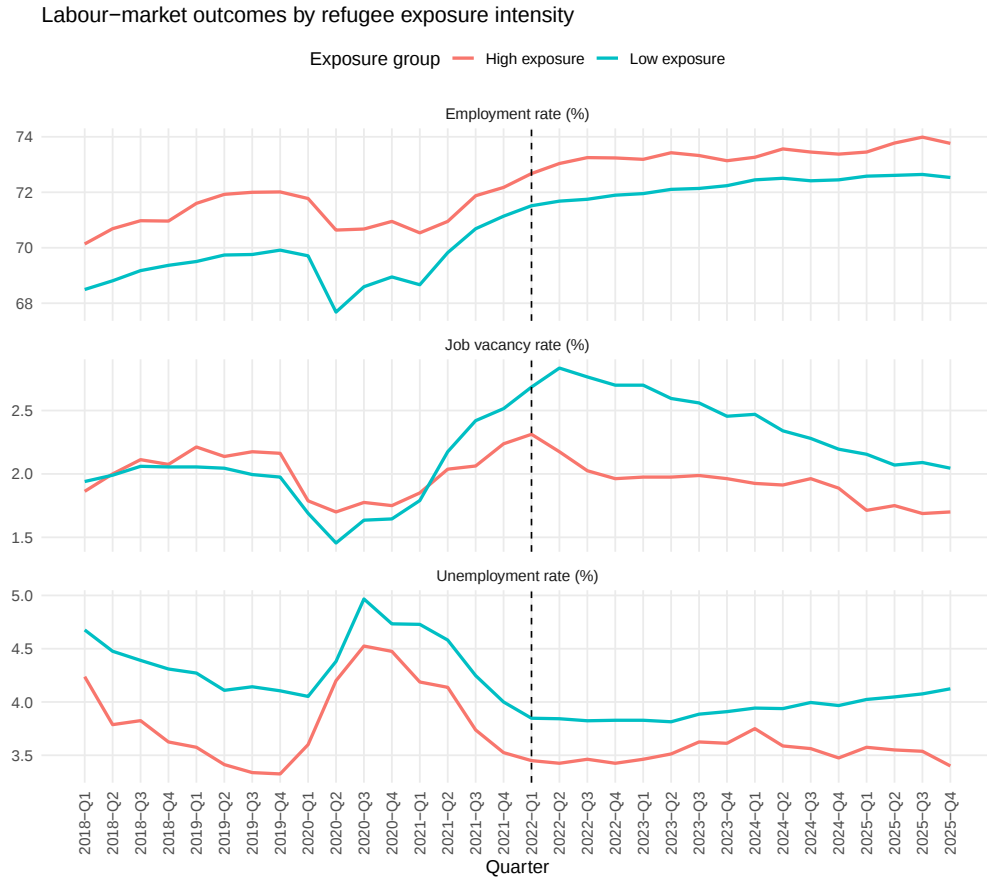


Figure 3.2: Labour-market outcomes by refugee exposure intensity.

Note: This figure compares labour-market trajectories for high-exposure and low-exposure country groups to highlight the dose-response relationship. The vertical dashed line marks 2022-Q1, the start of the post-shock period. It demonstrates that while high-exposure countries initially held stronger labour-market positions, these trends flattened relative to the low-exposure group after the large-scale refugee influx began.

3.4 Time-series plots and comparisons

The model-based comparison by exposure intensity leads to a similar descriptive impression. Before 2022, countries with higher exposure tend to be associated with higher employment and vacancy levels and lower unemployment. After 2022, these relationships appear flatter, especially for employment and vacancies, suggesting that the post-war period weakens the pre-existing positive association between refugee exposure and tight labour-market conditions.

Consequently, the descriptive data supports the use of a difference-in-differences approach. The highly asymmetric distribution of the refugee shock, combined with meaningful baseline variation in labour-market outcomes, provides the necessary cross-sectional and temporal heterogeneity to rigorously identify aggregate treatment effects.

4 Empirical Strategy

4.1 Identification strategy

This thesis exploits the Russian invasion of Ukraine in February 2022 as a natural experiment to identify the causal impact of refugee inflows on labor-market outcomes in European countries. Unlike traditional labor migration, this abrupt influx was driven overwhelmingly by geopolitical push factors rather than economic pull factors in the receiving nations. As a result, refugee inflows can be considered largely exogenous to pre-existing labor-market trends. Although the shock itself was common to all European countries, its impact varied substantially across countries. Some countries received a very large number of Ukrainian refugees, while others experienced much smaller inflows. This uneven geographical exposure allows us to directly isolate the labor-market effects.

The empirical strategy compares labor-market outcomes before and after 2022 across countries that were more strongly affected by Ukrainian refugee inflows and those that were less affected. By focusing on differences over time between these groups, the analysis isolates the effect of refugee inflows from other Europe-wide developments occurring at the same time, such as post-COVID recovery, inflation, or monetary tightening.

4.2 First Model: Binary DiD

The first empirical approach applies a *binary difference-in-differences* (DiD) framework. In this model, countries are divided into two groups: treated and control. A country is considered “treated” if it experienced a particularly high exposure to Ukrainian refugee inflows after 2022, while countries with relatively low inflows serve as the control group. The *baseline regression model* is

$$Y_{c,t} = \alpha_c + \delta_t + \beta(Treated_c \times Post_t) + X_{c,t}\gamma + \epsilon_{c,t}, \quad (1)$$

where

$Y_{c,t}$ labour-market outcome in country c and period t (employment rate, unemployment rate, or job-vacancy rate),

$Treated_c$ Treated: binary indicator equal to 1 for countries in the highest exposure quartile (as detailed in Table 3.1), and 0 otherwise,

$Post_t$ a binary variable coded as 1 for the post-war period (2022-Q1 onward) and 0 for the pre-war baseline (2018–2021),

4 Empirical Strategy

$Treated_c \times Post_t$ the interaction term between the treated group and the post-war period.

The coefficient on this term, β , is the DiD estimator,

$X_{c,t}$ a set of control variables that might change over time and across countries and could affect the labor market. In this study, they include real GDP growth, inflation (HICP), and sectoral composition (the mix of industries in the economy),

α_c denotes country fixed effects to absorb time-invariant unobservables,

δ_c time fixed effects capturing EU-wide shocks affecting all countries (COVID-19, inflation, policy responses),

$\epsilon_{c,t}$ the error term,

γ the coefficients on the control variables. These coefficients measure the effect of each control variable in on the outcome variable, holding other factors constant.

Consequently, the coefficient of interest, β , isolates the average causal effect of the sudden demographic influx. By comparing post-2022 trajectories between the highly exposed and control groups, the binary DiD framework filters out concurrent European macroeconomic shocks. The key idea is that both groups were exposed to the same aggregate European shocks, but only the treated group experienced a large refugee inflow.

The main coefficient of interest captures the average difference in post-2022 labor-market changes between treated and control countries, relative to the pre-2022 period. This coefficient can be interpreted as the average causal effect of high refugee exposure on labor-market outcomes such as employment, unemployment, and job-vacancy rates.

4.3 Second Model: Continuous DiD

To account for the massive heterogeneity in arrival intensity across host nations, the second empirical specification relaxes the binary classification in favor of a *continuous difference-in-differences model*.

In this model, refugee exposure is measured as the number of Ukrainians under temporary protection per 1,000 inhabitants in each country and period. This allows the analysis to capture not only whether a country was affected, but also how strongly it was affected:

$$Y_{c,t} = \alpha_c + \delta_t + \beta_1 UkrPer1000_{c,t} + \beta_2 (Post_t \times UkrPer1000_{c,t}) + X_{c,t}\gamma + \epsilon_{c,t}, \quad (2)$$

where the meaning of α_c , δ_c , $X_{c,t}$, γ and $\epsilon_{c,t}$ are as in Model 1, and

$UkrPer1000_{c,t}$ is the continuous treatment variable. It is the number of Ukrainian temporary protection holders per 1000 inhabitants in country c at time t .

β_1 captures the baseline (pre-war) relationship between exposure intensity and the labour-market outcome.

4.4 Estimation details and assumptions

β_2 measures the additional effect of exposure after the war— continuous-treatment DiD parameter.

The marginal post-war effect of exposure equals $\beta_1 + \beta_2$; the pre-war marginal effect equals β_1 .

The continuous DiD model improves on the binary approach by exploiting variation in the intensity of refugee inflows across countries and over time. It allows labor-market outcomes to respond differently depending on the scale of the inflow, rather than imposing a common treatment effect for all treated countries.

The interaction between refugee exposure and the post-2022 period captures how the marginal effect of refugee inflows changed after the war began. This interaction term represents the additional impact of refugee exposure in the post-war period, beyond any pre-existing relationship between migration intensity and labor-market outcomes. As a result, the continuous model provides a more nuanced assessment of how refugee inflows affected European labor markets.

4.4 Estimation details and assumptions

All empirical specifications include country fixed effects and time fixed effects. Standard errors are clustered at the country level to account for serial correlation in labor-market outcomes within countries over time. Identification relies on the standard parallel trends assumption, the plausibility of which is subsequently evaluated using pre-2022 event-study specifications. This assumption is assessed using pre-2022 trends and event-study evidence presented in the descriptive analysis.

5 Results and Robustness

5.1 Baseline results (Model 1):

The first empirical specification estimates a binary difference-in-differences model in which countries are divided into more exposed and less exposed groups, and the key coefficient of interest is the interaction between treatment status and the post-2022 period. We use this model to test whether labour-market outcomes evolved differently in countries that received stronger refugee inflows after the outbreak of the war in Ukraine. The model is estimated separately for employment, unemployment, and job vacancies, while controlling for country fixed effects, time fixed effects, and the macroeconomic controls described in Chapter 4.

Table 5.1 reports the baseline binary difference-in-differences estimates for employment, unemployment, and vacancies.

The post-2022 refugee shock did not trigger large aggregate labour-market disruptions across the more exposed host countries. For employment, the interaction coefficient is negative, implying that employment developed somewhat less favourably in the treated countries after 2022 than in the less exposed group. However, the coefficient is not statistically significant, because at the 90% confidence level ($0.68 > 0.1$). The same interpretation applies to unemployment. Although the coefficient is positive, indicating a somewhat less favourable post-2022 evolution in more exposed countries, the result is too limited and imprecise to imply a substantial aggregate unemployment effect.

However, the vacancy equation points to a clearer adjustment pattern. The interaction term is negative, suggesting that vacancy pressure declined more in the more exposed countries after 2022. Fundamentally, this indicates that the adjustment to the refugee inflow occurred through reduced labour-market tightness rather than through widespread job destruction. Rather than destroying aggregate employment, the inflow resulted primarily in a weakening of excess labour demand in countries that had previously faced tighter labour markets.

These findings directly provide the descriptive patterns established in Chapter 3. The treated countries generally entered the post-2022 period from somewhat stronger labour-market positions, with relatively higher employment and lower unemployment than the less exposed group. The baseline binary model therefore does not compare identical labour markets, but rather asks whether the post-2022 development in the more exposed group diverged from the pattern observed in the less exposed group once fixed differences and common shocks are taken into account. These estimates confirm that, any relative deterioration remains fundamentally small at the aggregate level.

The baseline estimates confirm that the binary treatment design yields no empirical

Table 5.1: Baseline Difference-in-Differences results Model 1.

Dependent Variables:	emp_rate	unemp_rate	job_vac_rate
<i>Variables</i>			
GDP growth	0.0426 (0.0623)	-0.0285 (0.0269)	0.0048 (0.0130)
Inflation rate	0.0653 (0.0398)	-0.0184 (0.0197)	-0.0120 (0.0143)
Service share	8.26×10^{-5} (0.0005)	6.26×10^{-5} (0.0002)	-2.29×10^{-5} (0.0002)
Agriculture share	-0.0018 (0.0011)	-0.0003 (0.0004)	0.0008** (0.0003)
Industry share	-0.0001 (0.0012)	-0.0002 (0.0006)	6.27×10^{-5} (0.0005)
Treated $\times$ Post-2022	-0.7809 (0.6844)	0.1347 (0.3283)	-0.4980 (0.3515)
<i>Fixed-effects</i>			
country	Yes	Yes	Yes
quarter	Yes	Yes	Yes
<i>Fit statistics</i>			
Observations	928	928	895
R^2	0.96315	0.87710	0.87545
<i>Clustered (country) standard-errors in parentheses</i>			
<i>Signif. Codes: ***: 0.01, **: 0.05, *: 0.1</i>			

Note: The table reports the baseline binary DiD estimates for employment, unemployment, and vacancy outcomes. The coefficient of interest is the interaction between treatment status and the post-2022 period.

evidence of broad aggregate labour-market disruption following the post-2022 refugee inflow. While the coefficients technically indicate a marginal relative decline, they remain too limited and imprecise to imply large average effects across host countries. Still, the vacancy result is more informative, as it suggests that the clearest short-run adjustment may have occurred through reduced labour-market tightness rather than through a substantial deterioration in overall labour-market performance.

Nevertheless, these baseline findings are strictly bounded by the aggregate nature of the country-quarter data. Because the model uses a binary treatment classification, it necessarily simplifies cross-country variation in refugee exposure. Countries within the treated group may still differ substantially in the scale of inflows they received, and valuable cross-country variance is unavoidably lost when exposure is reduced to a simple high-versus-low distinction.

5.2 Continuous treatment results (Model 2):

Model 2 replaces the simple treated-versus-control distinction with a continuous exposure measure based on the number of Ukrainians under temporary protection per 1,000 inhabitants. Unlike the binary classification, this continuous specification preserves the full distribution of cross-country variation in refugee arrivals. The results show that before 2022, countries with higher Ukrainian presence tended to have somewhat stronger labour market conditions, especially in employment and vacancies. After 2022, however, the interaction term effectively neutralizes this pre-existing advantage by the interaction term, so the post-war marginal relationship becomes close to zero for employment and unemployment.

Table 5.2 reports the continuous-treatment difference-in-differences estimates using refugee exposure intensity as the main treatment variable.

Table 5.2: Continuous Difference-in-Differences results (Model 2).

Dependent Variables:	emp_rate	unemp_rate	job_vac_rate
<i>Variables</i>			
Refugees per 1,000 (per_capita)	0.0467 (0.0562)	-0.0190 (0.0179)	0.0723 (0.0458)
per_capita $\times$ Post	-0.0599 (0.0518)	0.0283* (0.0163)	-0.0755** (0.0300)
Controls	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes
Quarter fixed effects	Yes	Yes	Yes
<i>Fixed-effects</i>			
country	Yes	Yes	Yes
quarter	Yes	Yes	Yes
<i>Fit statistics</i>			
Observations	924	924	891
Within R^2	0.04200	0.04763	0.15989

Clustered (country) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The table reports the estimates from the continuous-treatment specification, where refugee exposure is measured by the intensity of Ukrainian refugee presence relative to population.

Therefore, larger inflows do not generate relatively larger native employment losses. The strongest dose-response appears again in vacancies: higher refugee exposure is associated with a clearer reduction in job-vacancy rates after 2022, while the unemployment response remains weak and statistically indistinguishable from zero. This demonstrates that the primary effect of stronger inflows was not to push natives out of jobs, but to reduce

5 Results and Robustness

excess labour demand in tighter labour markets. As a result, the continuous model reinforces the binary baseline: stronger inflows correspond primarily to a decline in vacancies. The binary model shows that high-exposure countries did not experience large native labour-market losses on average. The continuous model adds that even within the post-2022 period, countries with larger refugee inflows were not systematically hit by higher unemployment. Instead, stronger inflows mainly correspond to a decline in vacancies, which directly confirms that refugee arrivals were absorbed primarily where labour demand had previously been strong.

To clarify this interpretation, Table 5.3 reports the baseline exposure effect, the post-2022 interaction effect, and their sum.

Table 5.3: Continuous DiD (Model 2): β_1 , β_2 , and $\beta_1 + \beta_2$ (SEs in parentheses).

Specification	Employment rate	Unemployment rate	Job vacancy rate
β_1 (per_capita)	0.047 (0.056)	-0.019 (0.018)	0.072 (0.046)
β_2 (per_capita $\times$ Post)	-0.060 (0.052)	0.028* (0.016)	-0.076** (0.030)
$\beta_1 + \beta_2$	-0.013 (0.028)	0.009 (0.016)	-0.003 (0.019)

Notes: Standard errors in parentheses are clustered at the country level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The table reports the baseline exposure effect, the post-2022 interaction effect, and their sum in order to clarify the implied post-2022 marginal effect.

5.3 Interpretation of estimated effects:

In general, the estimated effects confirm that, the post-2022 inflow of displaced Ukrainians did not produce large aggregate disruptions in employment or unemployment across European host countries in the short run. In the binary difference-in-differences specification, the post-2022 treatment interaction is negative for employment, positive for unemployment, and negative for job vacancies. However, the coefficients for employment and unemployment are not sufficiently large or precise to support a strong conclusion of broad aggregate labour-market deterioration. The negative effect on vacancies is more economically meaningful and points to a different adjustment channel. Rather than indicating a sharp worsening of labour-market conditions, the estimates are more consistent with a reduction in labour-market tightness in countries that experienced greater refugee exposure after 2022.

The continuous-treatment model leads to a similar overall interpretation. Once refugee exposure is measured by the intensity of temporary-protection beneficiaries relative to population, the post-2022 interaction remains small for employment and only modest for

5.3 Interpretation of estimated effects:

unemployment. These coefficients provide no evidence of a widespread economic decline in labour-market performance in more exposed countries. The clearest pattern again appears for vacancies, where greater refugee exposure after 2022 is associated with lower vacancy pressure. Thus, this result is important because it redirects the interpretation away from a simple displacement narrative and toward a wide view of labour-market adjustment. In this setting, the most visible aggregate response is not a collapse in employment, but a partial easing of unmet labour demand.

This interpretation is also consistent with the descriptive evidence and the graphical analysis presented earlier in the chapter. The figures do not show a dramatic change in aggregate employment trends after 2022, nor do they indicate an important and constant increase in unemployment in the more exposed countries. Instead, the most noticeable post-2022 pattern is that vacancy pressure appears to weaken more clearly than the other two outcome variables. The graphical proof therefore complements the regression results by showing that the main aggregate adjustment margin is more visible in vacancies than in broad labour-market participation outcomes.

Figure 5.1 illustrates this interpretation by comparing the relationship between refugee exposure and the main labour-market outcomes before and after 2022 in the continuous-treatment framework.

Even where the coefficients are statistically meaningful, they are not large enough to support a narrative of wide aggregate labour-market disruption across Europe. The post-2022 shock matters, but the results suggest that it matters mainly through gradual adjustment in labour demand, especially through lower vacancy pressure, rather than through a large deterioration in employment. This pattern is also consistent with the broader literature, which emphasizes that immigration effects depend on adjustment margins such as vacancies, mobility, task reallocation, and institutional settings, rather than only on direct job competition. Briefly, the Ukrainian refugee inflow had visible but limited aggregate effects at the country level. The estimates do not suggest that greater refugee exposure mechanically translated into significantly higher aggregate unemployment. Instead, they are more consistent with the interpretation that, in more exposed countries, part of the adjustment occurred through reduced labour-market tightness. Therefore, the aggregate impact remains economically insignificant.

However, the external validity of these findings is limited by the specific institutional context of the host countries. The absence of large aggregate effects on employment and unemployment does not imply that no labour-market adjustment occurred. Because the empirical analysis is based on country-quarter averages, the estimates capture only large cross-country patterns and cannot identify whether some workers, sectors, or regions were more affected than others. It is therefore possible that the aggregate results mask offsetting adjustments within countries. Some labour-market effects may also have operated through channels not directly captured by the present outcome variables, such as wages, hours worked, occupational downgrading, or regional reallocation.

In general, the evidence presented in this thesis establishes clear empirical boundaries for the labor-market impact of the shock. The refugee inflow does not appear to have generated a large short-run aggregate employment shock across European host countries.

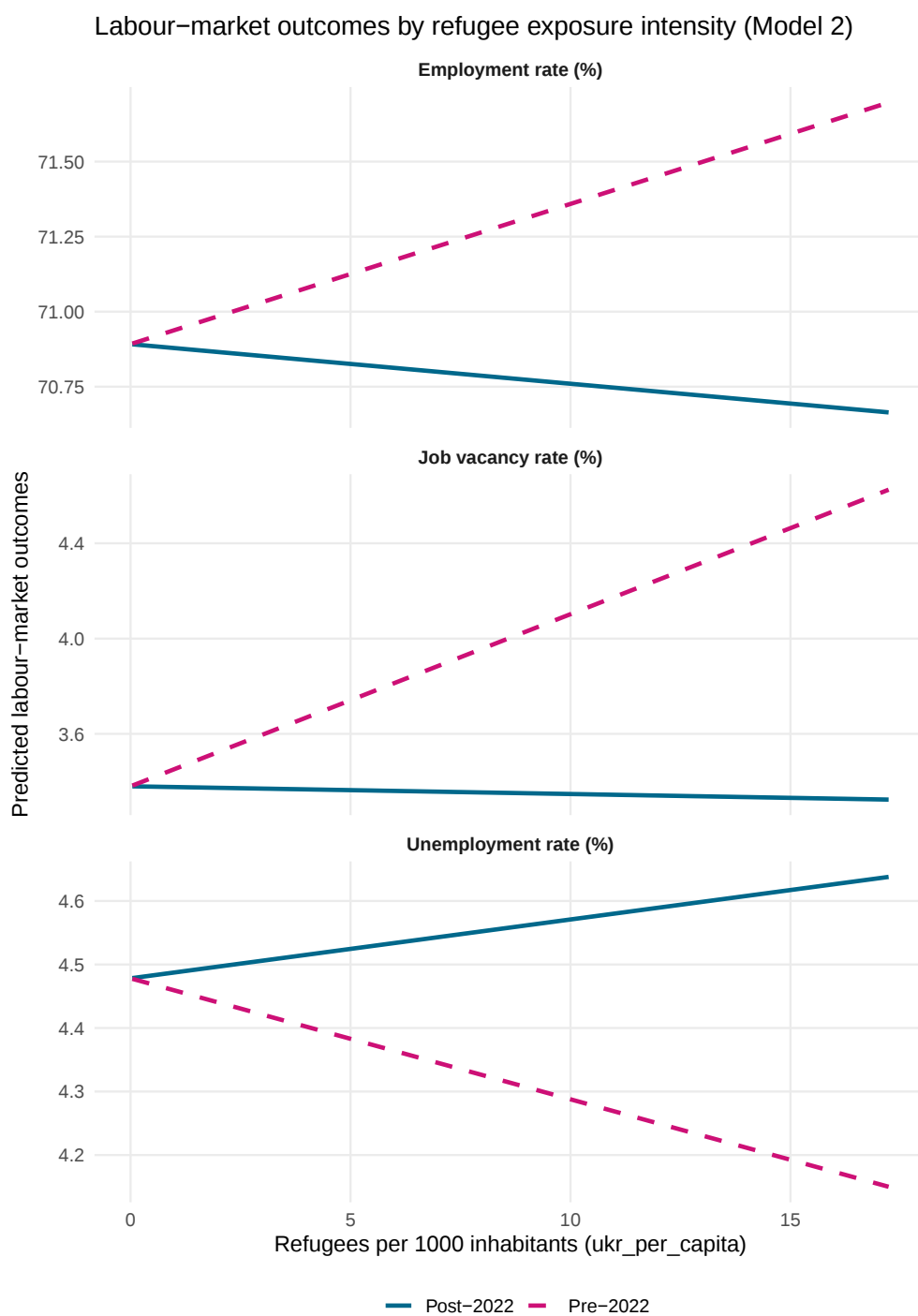


Figure 5.1: Labour-market outcomes by refugee exposure intensity (Model 2).
Note: The figure shows the model-implied relationship between refugee exposure and employment, job-vacancy, and unemployment outcomes in the continuous-treatment specification, separately for the pre-2022 and post-2022 periods.

The strongest and most consistent effect is instead found for vacancies, suggesting that the refugee inflow may have interacted with pre-existing labour shortages and contributed, at least partly, to easing labour-market tightness in more exposed economies. In that sense, the results are more consistent with limited aggregate adjustment than with a strong displacement effect.

5.4 Discussion of Scope and Interpretation

While these results provide a stable macroeconomic picture, the reliance on the results should be interpreted based on the level of aggregation used in the thesis. The empirical analysis is based on country-quarter panel data, which is well suited to identifying broad cross-country patterns around the 2022 refugee shock, but it is less suited to identifying distributional effects within countries. As a result, the estimates in this thesis speak to average labour-market responses rather than to the effects on particular demographic or occupational groups.

This distinction is significant because the migration literature often finds that average effects are modest even when some subgroups experience meaningful adjustment. The absence of large aggregate employment or unemployment effects in this thesis should therefore not be interpreted as evidence that no adjustment took place at all. Instead, it suggests that any labour-market effects of the Ukrainian inflow were either limited in aggregate terms, offset by complementarities and labour demand, or concentrated in margins not fully captured by the present panel, such as wages, working hours, occupations, or specific local labour markets.

From this perspective, the negative vacancy result becomes particularly informative. It suggests that, in the short run, the refugee inflow may have interacted with pre-existing labour shortages in parts of Europe. Refugees were not immediately or completely hired all available jobs, but it is consistent with the view that labour-market adjustment may have occurred partly through reduced tightness rather than through broad declines in employment.

Furthermore, the aggregate nature of this analysis prevents a definitive micro-level mechanism from being established. While the continuous DiD model shows a robust correlation between higher refugee inflows and reduced vacancy rates, this study cannot causally prove that displaced Ukrainians directly filled these specific open positions. The observed reduction in labor market tightness reflects a macroeconomic balancing effect occurring together with the refugee shock. The precise micro-level matching—verifying whether refugees were hired into the specific sectors experiencing these vacancy drops—remains a limitation of this aggregate design.

The entire empirical scope of the thesis is therefore best understood as an aggregate analysis of short-run labour-market adjustment across European host countries. Questions about distributional impacts across education, age, gender, occupations, or regions remain important, but they fall outside the direct empirical reach of the current country-quarter design and are better treated as avenues for future research.

5.5 Robustness checks

To assess whether the main findings are sensitive to treatment definition and model specification, this thesis run several robustness checks for both the binary and continuous difference-in-differences frameworks. This is especially relevant in the present context because the analysis is based on aggregate country-quarter data, where estimated effects may depend on how refugee exposure is classified and how the post-2022 shock is parameterized.

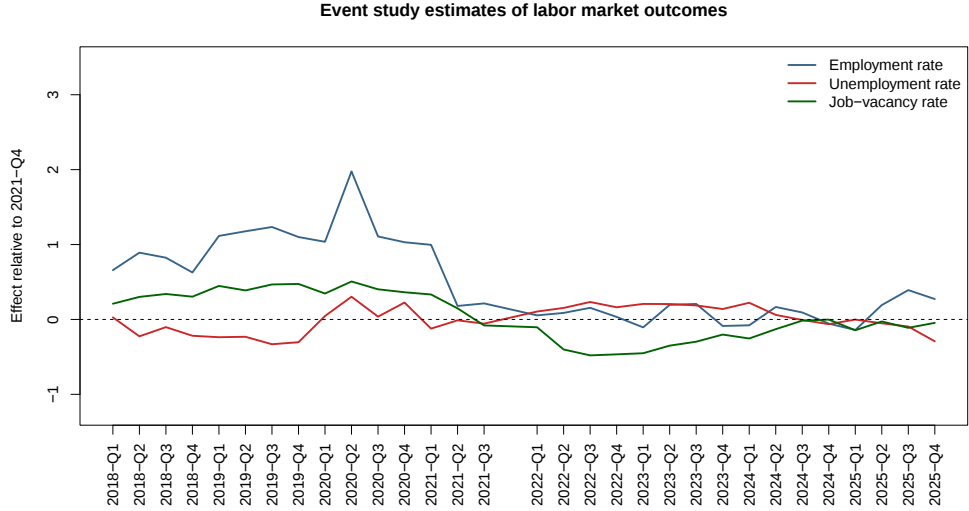


Figure 5.2: Event study estimates of labor market outcomes.

Note: The figure plots dynamic estimates for employment, unemployment, and job-vacancy outcomes relative to the pre-treatment period. It helps assess the plausibility of parallel pre-trends and the timing of post-2022 adjustment.

It is important to interpret the pre-2022 trends in light of the severe macroeconomic disruptions caused by the COVID-19 pandemic. As Figure 5.2 illustrates, the pre-treatment period contains important uncertainty, particularly between 2020 and 2021. While the inclusion of time fixed effects in the model captures the average, EU-wide impact of the pandemic, it cannot perfectly account for asymmetric recovery trajectories. Specifically, it is plausible that countries with higher refugee exposure (such as those in Eastern Europe) experienced different post-COVID hiring dynamics than lower-exposure countries. Therefore, the post-2022 reduction in the job-vacancy rate should be interpreted carefully; it likely captures a combination of the exogenous refugee labor supply shock and the natural cooling of a post-pandemic hiring bubble.

The first set of robustness checks concerns the binary treatment model. In the baseline specification, countries are divided into more exposed and less exposed groups, and the key coefficient of interest is the interaction between treatment status and the post-2022 period. Alternative treatment definitions are useful because the binary grouping definitely simplifies cross-country variation in exposure. If the main findings were driven purely by

a particular threshold choice, this would weaken confidence in the baseline interpretation. The robustness exercises therefore test whether the results continue to point in the same general direction when the treatment classification is changed.

Across these alternative binary specifications, the employment and unemployment results remain relatively limited and unstable. In some cases, the coefficients shift in magnitude and significance, which suggests that these outcomes are sensitive to the exact treatment definition. This observation represents a critical baseline for the future analysis. It indicates that the aggregate employment and unemployment effects are not strong enough to be treated as highly robust structural relationships. Rather, they should be interpreted with caution as big reduced-form patterns that vary depending on how exposure is split across countries. The absence of a consistently large treatment effect on these two outcomes make stronger the earlier conclusion that the refugee inflow did not generate a clear aggregate labour- market shock in the form of sharply lower employment or sharply higher unemployment across host countries.

Table 5.4 summarizes the robustness checks for the binary treatment specification.

Table 5.4: Robustness Checks – Binary DiD (Model 1).

Exposure cutoff	emp_rate	unemp_rate	job_vac_rate
Baseline (75%)	-0.781	0.135	-0.498
70% cutoff	-1.214	0.422	-0.417
80% cutoff	-0.669	0.275	-0.343
No controls	-0.714	0.136	-0.532

Note: The table reports alternative specifications for the binary difference-in-differences model, including changes in treatment definition and controls, and shows the resulting interaction estimates for the main outcomes.

The vacancy results are more stable across the binary robustness checks. Although the estimated proportions may vary somewhat from one specification to another, the sign remains more consistently negative than in the case of employment or unemployment. The reason this matters is that it suggests that the vacancy result is not merely an artifact of one particular treatment threshold. Instead, it appears to capture a more persistent relationship between higher post-2022 refugee exposure and lower vacancy pressure. From an economic perspective, this supports the interpretation that labour-market adjustment in more exposed countries was more visible in the reduction of unmet labour demand than in broad aggregate employment losses.

The second set of robustness checks concerns the continuous-treatment specification. This model measures refugee exposure directly through the intensity of temporary-protection beneficiaries relative to population, which avoids the need to impose a binary distinction between treated and untreated countries. However, because the model includes both the exposure variable and its interaction with the post-2022 period, interpretation depends on the joint behaviour of several coefficients. Robustness checks are therefore especially useful here, since they allow the thesis to examine whether the post-2022

5 Results and Robustness

relationship remains similar once the specification is varied.

The continuous-model robustness results broadly confirm the same overall pattern as the baseline estimates. The employment effect remains small and does not indicate a strong aggregate deterioration in more exposed countries. The unemployment effect is also limited and should be interpreted carefully. In some variants it is somewhat more visible than in others, but it is not consistently large enough to overturn the thesis’s main conclusion. In other words, the robustness checks do not support a statement in which stronger refugee exposure systematically translates into significantly worse aggregate unemployment outcomes across Europe.

Table 5.5 summarizes the robustness checks for the continuous-treatment specification.

Table 5.5: Robustness checks: DiD interaction coefficient (Exposure $\times$ Post).

Specification	Employment rate	Unemployment rate	Job vacancy rate
Baseline	-0.037 (0.031)	0.019 (0.014)	-0.040*** (0.012)
Log exposure (log(ukr_per_capita + 1))	-0.569 (0.365)	0.264 (0.175)	-0.421* (0.246)
No controls	-0.030 (0.034)	0.015 (0.014)	-0.046*** (0.011)
Drop top-exposure country	-0.022 (0.039)	0.016 (0.019)	-0.028*** (0.010)

Note: The table reports alternative specifications for the continuous-treatment model and shows the stability of the exposure interaction coefficient across robustness exercises.

Again, the clearest robustness result emerges for vacancies. The negative post-2022 association between refugee exposure and vacancy pressure remains visible across alternative continuous-model specifications, making this the most stable empirical finding in the thesis. This is important because the continuous model is, in many ways, the more informative framework: it uses the intensity of refugee exposure rather than a simple treated-versus-control split, and therefore captures more of the underlying cross-country variation. The fact that the vacancy effect remains negative in this richer setting strengthens confidence in the idea that the refugee inflow may have interacted with pre-existing labour shortages and contributed to some easing of labour-market tightness in more exposed host economies.

At the same time, the robustness checks also show that not every part of the empirical story is equally strong. The employment and unemployment coefficients are more fragile than the vacancy coefficients, and this fragility should be acknowledged openly. In applied work of this kind, such sensitivity is not unusual. The Ukrainian refugee inflow occurred during a period that was also shaped by post-pandemic recovery, inflation, energy shocks, and changes in overall labour demand across Europe. Since the analysis is performed at

the aggregate country-quarter level, estimated effects inevitably reflect the interaction of the refugee shock with these broader macroeconomic developments. For that reason, one should not expect perfect stability across all specifications, especially for outcomes such as employment and unemployment that are influenced by many concurrent factors.

The robustness exercises therefore do not eliminate all uncertainty, but they do help clarify which conclusions are on firmer ground. The main message that survives these checks is that the thesis finds no strong and consistently robust evidence of a large aggregate employment or unemployment shock associated with the post-2022 Ukrainian refugee inflow. The evidence for those two outcomes remains modest and somewhat specification-sensitive. By contrast, the negative vacancy effect is more stable across models and alternative specifications, which makes it the most credible and economically informative result in the analysis.

More generally, this pattern is also possible. If European labour markets entered the period after 2022 with significant unmet labour demand in some sectors and countries, then an increase in labour supply through refugee arrivals do not need to show itself primarily as rising unemployment. Instead, part of the adjustment may occur through lower vacancy pressure, gradual matching, and the absorption of new workers into labour markets that were already experiencing shortages. The robustness checks are consistent with exactly this interpretation. They do not suggest that the refugee inflow caused a large aggregate labour-market gap. Rather, they suggest that the most visible and robust adjustment margin was the vacancy channel.

Alltogether, these tests confirm the stability of the baseline results by showing that its conclusions do not rest on a single narrow specification. At the same time, it also encourages a cautious reading of the results. The most defensible conclusion is not that the labour-market effects were zero in every respect, but that, at the aggregate country level, they were limited in size and most clearly visible in reduced vacancy pressure rather than in broad employment losses or sharply higher unemployment

6 Conclusion

6.1 Summary of findings:

This thesis examined how the post-2022 inflow of displaced Ukrainians affected aggregate labour-market outcomes across European host countries. Using quarterly country-level data and both binary and continuous difference-in-differences specifications, the analysis focused on employment, unemployment, and job vacancies as key indicators of adjustment.

Across both empirical approaches, the results point to a consistent pattern. There is no evidence that higher refugee exposure led to a measurable deterioration in aggregate employment or unemployment in the short run. The estimated effects on these outcomes are small and statistically imprecise, suggesting that the large and sudden increase in labour supply did not translate into broad displacement at the country level.

The clearest adjustment appears in job vacancies. Countries with higher exposure experienced a more pronounced decline in vacancy rates after 2022. This indicates that part of the adjustment occurred through a reduction in labour-market tightness rather than through job losses. In other words, the additional labour supply seems to have interacted with previously strong labour demand, particularly in tighter markets.

All together, the findings submit that the European labour market was able to absorb the refugee inflow without generating large aggregate disruptions. The adjustment mechanism is better described as a rebalancing of labour demand and supply than as a negative shock to employment.

6.2 Policy Implications

The results have several implications for how policymakers think about large-scale refugee inflows. First, they suggest that immediate access to the labour market can play a stabilizing role. In the Ukrainian case, the Temporary Protection Directive allowed displaced individuals to enter employment quickly, which likely contributed to the absence of strong aggregate disruptions. Delayed access, by contrast, may have led to different outcomes.

Second, the findings highlight the importance of initial labour-market conditions. The observed reduction in vacancy pressure is consistent with the idea that many European economies were already experiencing labour shortages prior to 2022. In such a context, additional labour supply can ease capacity constraints rather than intensify competition. This implies that the effects of refugee inflows depend critically on the state of the receiving labour market.

Third, the results caution against interpreting aggregate stability as evidence that no adjustment occurred. Even when employment and unemployment remain stable at the macro level, adjustment may still take place within sectors, occupations, or regions. Policies that support job matching, language acquisition, and recognition of qualifications remain important for ensuring that integration is efficient and does not generate barriers in specific parts of the labour market.

6.3 Limitations and Future Research

The main limitation of this thesis lies in the level of aggregation. By using country-quarter data, the analysis captures broad macroeconomic responses but cannot identify how effects are distributed within countries. It is therefore not possible to assess whether particular groups—such as low-skilled workers, recent entrants, or specific regions—were more affected than others.

A second limitation concerns the set of outcome variables. Employment, unemployment, and vacancies provide a useful overview of labour-market conditions, but they do not capture other important margins of adjustment. Changes in wages, working hours, occupational mobility, or job quality may have played a role but remain outside the scope of this analysis.

Finally, while the difference-in-differences framework isolates relative changes across countries, it cannot fully disentangle the refugee shock from other contemporaneous developments, particularly the post-pandemic recovery and subsequent macroeconomic adjustments. Although time fixed effects account for common shocks, differences in recovery dynamics across countries may still influence the estimates.

Future research could address these limitations by using micro-level data to examine distributional effects within labour markets. Linking refugee inflows to sectoral or regional outcomes would help clarify the mechanisms behind the aggregate patterns observed here. In addition, extending the time horizon would allow for an assessment of medium and long-run effects, which may differ from the short-run adjustments captured in this thesis.

Bibliography

- J.D. Angrist and A.D. Kugler. Protective or counter-productive? Labour market institutions and the effect of immigration on EU natives. *The Economic Journal*, 113:302–331, 2003. URL <https://doi.org/10.1111/1468-0297.00136>.
- D. Card. The Impact of the Mariel Boatlift on the Miami Labor Market. *ILR Review*, 43(2):245–257, 1990. URL <https://doi.org/10.2307/2523702>.
- E. Ceritoglu, H.B. Gurcihan Yunculer, H. Torun, and S. Tumen. The impact of Syrian refugees on natives’ labor market outcomes in Turkey: Evidence from a quasi-experimental design. *IZA Journal of Labor Policy*, 6:5, 2017. URL <https://doi.org/10.1186/s40173-017-0082-4>.
- C. Dustmann, U. Schönberg, and J. Stuhler. The impact of immigration: Why do studies reach such different results? *Journal of Economic Perspectives*, 30:31–56, 2016. URL <https://www.aeaweb.org/articles?id=10.1257/jep.30.4.31>.
- Eurostat. Job vacancy rate by NACE rev. 2 activity – annual data (jvs_a_rate_r2), 2023a. URL https://doi.org/10.2908/JVS_A_RATE_R2.
- Eurostat. Persons in full-time/part-time employment by economic activity (NACE rev. 2) (lfsa_epgan2), 2023b. URL https://doi.org/10.2908/LFSA_EPGAN2.
- Eurostat. Employment and activity by sex and age – annual data (lfsi_emp_a), 2023c. URL https://doi.org/10.2908/LFSI_EMP_A.
- Eurostat. Employment and activity by sex and age – quarterly data (lfsi_emp_q), 2023d. URL https://doi.org/10.2908/LFSI_EMP_Q.
- Eurostat. Total unemployment rate (tps00203), 2023e. URL <https://doi.org/10.2908/TPS00203>.
- F. Fasani, T. Frattini, and L. Minale. (the Struggle for) Refugee Integration into the Labour Market: Evidence from Europe. IZA Discussion Papers 11333, IZA Network @ LISER, Feb 2018. URL <https://ideas.repec.org/p/iza/izadps/dp11333.html>.
- F. Fasani, T. Frattini, and L. Minale. (the Struggle for) Refugee integration into the labour market: evidence from Europe. *Journal of Economic Geography*, 22:351–393, 2022. URL <https://doi.org/10.1093/jeg/1bab011>.

Bibliography

- M. Foged and G. Peri. Immigrants' Effect on Native Workers: New Analysis on Longitudinal Data. *American Economic Journal: Applied Economics*, 8(2):1–34, 2016. URL <https://www.aeaweb.org/articles?id=10.1257/app.20150114>.
- Y. Kosyakova, K. Gatskova, T. Koch, D. Adunts, J. Braunfels, L. Goßner, R. Konle-Seidl, S. Schwanhäuser, and M. Vandenhirtz. Labour market integration of Ukrainian refugees: An international perspective. In *IAB Research Report 16/2024en*. Institute for Employment Research, 2024. URL <https://doi.org/10.48720/IAB.FB.2416EN>.
- A. Postepska and A. Voloshyna. The effect of Ukrainian refugees on the local labour markets: The case of Czechia. *Journal of Population Economics*, 38:30, 2025. URL <https://doi.org/10.1007/s00148-025-01080-9>.

Appendix

Table 1: Robustness of treatment effects

Outcome	Cutoff	Term	Beta	SE	t	CI_low	CI_high
Employment	baseline	treat:post	-0.78	0.68	-1.14	-2.12	0.56
Unemployment	baseline	treat:post	0.13	0.33	0.41	-0.51	0.78
Job vacancy	baseline	treat:post	-0.50	0.35	-1.42	-1.19	0.19
Employment	70%	treat70:post	-1.21	0.61	-1.99	-2.41	-0.02
Unemployment	70%	treat70:post	0.42	0.35	1.20	-0.26	1.11
Job vacancy	70%	treat70:post	-0.42	0.25	-1.67	-0.91	0.07
Employment	80%	treat80:post	-0.67	0.62	-1.08	-1.89	0.55
Unemployment	80%	treat80:post	0.28	0.31	0.89	-0.33	0.88
Job vacancy	80%	treat80:post	-0.34	0.26	-1.30	-0.86	0.18

Table 2: Difference-in-Differences Beta (Treated $\times$ Post-2022) by outcome

Outcome	Beta_term	Beta	SE	t	CI_low	CI_high
Employment rate	Treated $\times$ Post-2022	-0.7809	0.6844	-1.1411	-2.1223	0.5605
Unemployment rate	Treated $\times$ Post-2022	0.1347	0.3283	0.4102	-0.5087	0.7780
Job-vacancy rate	Treated $\times$ Post-2022	-0.4980	0.3515	-1.4169	-1.1870	0.1909

Note: **Beta** is the coefficient on Treated $\times$ Post-2022 (the DiD effect). Standard errors are clustered at the country level.

Table A.1: Main data for Austria

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	8822267	72.9	3.7	3.1	2.5	1.93	136	1032.1	2973.7	0.72	0.03	0.25	—	1.0311
2018-Q2	8822267	73.1	3.5	3	2.5	2.13	139.8	1073.2	2993	0.71	0.03	0.26	—	1.0311
2018-Q3	8822267	73	3.6	3.3	2.5	2.23	142.9	1105.5	3008.7	0.71	0.03	0.26	—	1.0311
2018-Q4	8822267	73.1	3.5	3.6	2.5	2.13	141	1095.8	2998.6	0.71	0.03	0.26	—	1.0311
2019-Q1	8858775	73.6	3.5	3.4	1.8	1.6	141.2	1065.8	2989.5	0.71	0.03	0.25	—	1.1218
2019-Q2	8858775	73.5	3.3	3.4	1.8	1.67	141.6	1098.2	3009.9	0.71	0.03	0.26	—	1.1218
2019-Q3	8858775	73.4	3.3	3.3	1.8	1.37	144	1094.7	3049.8	0.71	0.03	0.26	—	1.1218
2019-Q4	8858775	73.7	3.2	3.3	1.8	1.33	140	1074	3061.7	0.72	0.03	0.25	—	1.1218
2020-Q1	8901064	73.4	3.2	3.2	-6.3	2	146.9	1024.1	3016.3	0.72	0.04	0.24	—	1.1112
2020-Q2	8901064	69.9	4.6	2.4	-6.3	1.07	150.5	1040.8	2921	0.71	0.04	0.25	—	1.1112
2020-Q3	8901064	71.9	4.4	2.7	-6.3	1.47	155.7	1084.6	3014.1	0.71	0.04	0.25	—	1.1112
2020-Q4	8901064	71.7	4.2	2.9	-6.3	1.07	149.4	1076.6	2996.1	0.71	0.04	0.25	—	1.1112
2021-Q1	8932664	71.5	4.8	3.1	4.9	1.5	140	1010.7	2930.6	0.72	0.03	0.25	—	1.1165
2021-Q2	8932664	71.7	4.5	3.6	4.9	2.57	139.1	1065.8	2936.7	0.71	0.03	0.26	—	1.1165
2021-Q3	8932664	73.2	3.8	4.2	4.9	3.1	153.1	1112.5	3018.8	0.7	0.04	0.26	—	1.1165
2021-Q4	8932664	73.3	3.6	4.6	4.9	3.9	142.2	1130.3	2991.6	0.7	0.03	0.27	—	1.1165
2022-Q1	8978929	74.2	3.2	5.2	5.3	5.53	136	1108.6	2996.1	0.71	0.03	0.26	31845	3.55
2022-Q2	8978929	74.2	3	5.3	5.3	7.83	142.3	1141.2	3037.2	0.7	0.03	0.26	40755	4.54
2022-Q3	8978929	73.9	3.3	5.4	5.3	9.9	144.2	1170.1	3061.8	0.7	0.03	0.27	10050	1.12
2022-Q4	8978929	73.8	3.4	5.3	5.3	11.1	134.8	1164.7	3041.8	0.7	0.03	0.27	6870	0.77
2023-Q1	9104772	74.1	3.4	5.1	-0.8	10.6	130.1	1101.3	3073.7	0.71	0.03	0.26	5200	0.57
2023-Q2	9104772	74.2	3.4	4.8	-0.8	8.63	129.7	1135.2	3098.1	0.71	0.03	0.26	4085	0.45
2023-Q3	9104772	74.1	3.7	4.6	-0.8	6.77	128.3	1148.5	3132	0.71	0.03	0.26	4590	0.5
2023-Q4	9104772	74.1	3.5	4.3	-0.8	5.17	113.3	1136.2	3132.6	0.71	0.03	0.26	4300	0.47
2024-Q1	9158750	74.2	3.4	4.4	-0.7	4.13	109.5	1087.8	3125.8	0.72	0.03	0.25	3665	0.4
2024-Q2	9158750	74.1	3.5	4	-0.7	3.27	113.2	1103.9	3148.6	0.72	0.03	0.25	4260	0.47
2024-Q3	9158750	74	3.7	3.8	-0.7	2.37	116.1	1095.4	3193.6	0.72	0.03	0.25	4935	0.54
2024-Q4	9158750	74.1	3.7	3.8	-0.7	1.93	108.7	1087.7	3163.4	0.73	0.02	0.25	4810	0.53
2025-Q1	9197213	74.3	3.8	3.4	0.6	3.3	108.9	1026.5	3179.9	0.74	0.03	0.24	3450	0.38
2025-Q2	9197213	74.4	3.9	3.4	0.6	3.17	113.6	1056.8	3193.1	0.73	0.03	0.24	4065	0.44
2025-Q3	9197213	74.2	4	3.2	0.6	3.9	111.1	1090.7	3190.8	0.73	0.03	0.25	4320	0.47
2025-Q4	9197213	74.5	4.1	2.9	0.6	3.93	107.4	1074.5	3198.3	0.73	0.02	0.25	4505	0.49

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.2: Main data for Belgium

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	11398589	64.1	3.7	3.5	1.9	1.6	35.6	975.9	3597.8	0.78	0.01	0.21	—	0.4058
2018-Q2	11398589	64	3.7	3.5	1.9	2.17	41.9	960.7	3599.4	0.78	0.01	0.21	—	0.4058
2018-Q3	11398589	64.7	3.5	3.6	1.9	2.7	49.3	990.8	3656.8	0.78	0.01	0.21	—	0.4058
2018-Q4	11398589	65.1	3.5	3.5	1.9	2.77	38.3	995.1	3680.9	0.78	0.01	0.21	—	0.4058
2019-Q1	11455519	64.6	3.5	3.6	2.4	2	33.3	970.7	3662.9	0.78	0.01	0.21	—	0.4386
2019-Q2	11455519	65.8	3.3	3.4	2.4	1.67	42.2	1001.1	3713.3	0.78	0.01	0.21	—	0.4386
2019-Q3	11455519	65.5	3.2	3.4	2.4	0.9	43.2	978.6	3738.4	0.79	0.01	0.21	—	0.4386
2019-Q4	11455519	65.2	3.2	3.4	2.4	0.5	38.8	971.3	3727.1	0.79	0.01	0.21	—	0.4386
2020-Q1	11522440	65.2	3.1	3.2	-4.8	0.93	33.6	964.2	3725.3	0.79	0.01	0.2	—	0.4525
2020-Q2	11522440	64.1	3.1	3	-4.8	0	41.8	941.7	3684.6	0.79	0.01	0.2	—	0.4525
2020-Q3	11522440	64.2	3.9	3.2	-4.8	0.43	41.7	949	3738.2	0.79	0.01	0.2	—	0.4525
2020-Q4	11522440	64.2	3.6	2.9	-4.8	0.33	36.5	982.6	3685.3	0.78	0.01	0.21	—	0.4525
2021-Q1	11554767	63.8	4	3.6	6.3	0.83	34.1	963.9	3627.1	0.78	0.01	0.21	—	0.491
2021-Q2	11554767	65.2	3.7	4.2	6.3	2.4	38.9	914.7	3782.5	0.8	0.01	0.19	—	0.491
2021-Q3	11554767	65.9	3.9	4.7	6.3	3.3	43.9	876.4	3915.9	0.81	0.01	0.18	—	0.491
2021-Q4	11554767	66.2	3.6	4.7	6.3	6.37	36.2	924	3889.5	0.8	0.01	0.19	—	0.491
2022-Q1	11617623	66.7	3.3	4.8	4	9.1	29.3	958.9	3869	0.8	0.01	0.2	25930	2.23
2022-Q2	11617623	66.2	3.5	5	4	9.9	38.5	912.3	3894.2	0.8	0.01	0.19	22015	1.89
2022-Q3	11617623	66.5	3.3	4.9	4	11	42	910.4	3970.6	0.81	0.01	0.18	8325	0.72
2022-Q4	11617623	66.8	3.5	4.5	4	11.27	38.6	930.8	3964.8	0.8	0.01	0.19	5630	0.48
2023-Q1	11742796	66.8	3.5	4.7	1.7	5.9	38.5	956.8	3916.5	0.8	0.01	0.19	4300	0.37
2023-Q2	11742796	66.1	3.4	4.6	1.7	2.53	51.9	953	3860.1	0.79	0.01	0.2	3440	0.29
2023-Q3	11742796	66.5	3.2	4.7	1.7	1.6	49.6	957.4	3937.4	0.8	0.01	0.19	4285	0.36
2023-Q4	11742796	66.9	3.4	4.4	1.7	-0.67	50.5	951.5	3969.6	0.8	0.01	0.19	3315	0.28
2024-Q1	11817096	66.4	3.6	4.4	1.1	2.97	37.8	981.5	3878.2	0.79	0.01	0.2	3170	0.27
2024-Q2	11817096	66.7	3.4	4.3	1.1	5.07	43.3	967	3919.3	0.8	0.01	0.2	2865	0.24
2024-Q3	11817096	66.7	3.5	4.2	1.1	4.67	46.7	945.6	3960.8	0.8	0.01	0.19	4135	0.35
2024-Q4	11817096	67.2	3.6	4.2	1.1	4.57	44.9	959.8	3993.2	0.8	0.01	0.19	2965	0.25
2025-Q1	11883495	67.1	3.9	4.1	1	4.13	39.8	988.2	3947	0.79	0.01	0.2	2420	0.2
2025-Q2	11883495	67.9	3.8	3.9	1	2.93	29.1	950.4	4041.3	0.8	0.01	0.19	1890	0.16
2025-Q3	11883495	67.3	3.9	3.8	1	2.63	38	918.9	4053.4	0.81	0.01	0.18	2530	0.21
2025-Q4	11883495	67.3	4	3.5	1	2.43	36.6	944.3	4020.9	0.8	0.01	0.19	1875	0.16

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.3: Main data for Bulgaria

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	6757418	67	3.9	0.9	2.3	1.57	185.8	905	1900.1	0.64	0.06	0.3	—	0.747
2018-Q2	6757418	66.8	3.8	0.9	2.3	2.33	199.6	917.4	1923.4	0.63	0.07	0.3	—	0.747
2018-Q3	6757418	66.8	3.9	0.9	2.3	3.63	209.2	941.5	1924.4	0.63	0.07	0.31	—	0.747
2018-Q4	6757418	66.7	3.6	1	2.3	2.97	185.4	923.2	1916.6	0.63	0.06	0.31	—	0.747
2019-Q1	6664177	69.1	3.5	0.9	3.8	2.5	176.4	858.5	1818	0.64	0.06	0.3	—	1.0007
2019-Q2	6664177	70.4	3.1	0.9	3.8	2.77	189.2	899.1	1847	0.63	0.06	0.31	—	1.0007
2019-Q3	6664177	69.7	3.2	0.9	3.8	2.23	199.1	901.8	1845.7	0.63	0.07	0.31	—	1.0007
2019-Q4	6664177	69.3	3.2	0.9	3.8	2.3	185.9	882.7	1784.9	0.63	0.07	0.31	—	1.0007
2020-Q1	6569275	68.7	3.2	0.6	-3.1	2.97	162.7	835	1734.5	0.63	0.06	0.31	—	1.2042
2020-Q2	6569275	67.6	4	0.8	-3.1	1.07	174.1	835.9	1700.7	0.63	0.06	0.31	—	1.2042
2020-Q3	6569275	68	3.8	0.9	-3.1	0.53	195.1	840.9	1768.3	0.63	0.07	0.3	—	1.2042
2020-Q4	6569275	68.2	3.9	0.7	-3.1	0.3	176.4	854.5	1722.7	0.63	0.06	0.31	—	1.2042
2021-Q1	6532117	68.1	3.6	0.8	7.8	0.23	155.6	852	1655	0.62	0.06	0.32	—	1.4006
2021-Q2	6532117	68.5	3.3	0.8	7.8	2.23	162.9	846.4	1708.1	0.63	0.06	0.31	—	1.4006
2021-Q3	6532117	68.5	3	0.8	7.8	2.9	185.6	856.3	1736.3	0.62	0.07	0.31	—	1.4006
2021-Q4	6532117	68.8	2.8	0.8	7.8	6.03	166.2	835.2	1729.5	0.63	0.06	0.31	—	1.4006
2022-Q1	6482484	69.8	2.8	0.8	4.1	8.87	154.8	803.7	1750.7	0.65	0.06	0.3	30505	4.71
2022-Q2	6482484	70.3	2.7	0.9	4.1	13.43	178.6	823.2	1752.6	0.64	0.06	0.3	88250	13.61
2022-Q3	6482484	70.9	2.5	0.8	4.1	15.17	201.4	874	1773.4	0.62	0.07	0.31	15425	2.38
2022-Q4	6482484	71.4	2.4	0.8	4.1	14.47	167.1	852.9	1795.6	0.64	0.06	0.3	12575	1.94
2023-Q1	6447710	71.2	2.6	0.8	1.7	13.37	143.2	823.5	1790.2	0.65	0.05	0.3	6125	0.95
2023-Q2	6447710	70.7	2.8	0.8	1.7	8.8	159.4	834.9	1754.4	0.64	0.06	0.3	7110	1.1
2023-Q3	6447710	70.7	2.8	0.8	1.7	7.23	172.8	835.8	1798.4	0.64	0.06	0.3	5810	0.9
2023-Q4	6447710	70.5	2.7	0.8	1.7	5.47	146.7	790.2	1782.1	0.66	0.05	0.29	4390	0.68
2024-Q1	6445481	70.7	2.9	0.7	3.4	3.5	133.7	782.8	1783.4	0.66	0.05	0.29	4805	0.75
2024-Q2	6445481	71	2.6	0.8	3.4	2.67	146.7	797.3	1806.5	0.66	0.05	0.29	8130	1.26
2024-Q3	6445481	70.9	2.5	0.8	3.4	2.23	133.6	757.3	1869.4	0.68	0.05	0.27	6940	1.08
2024-Q4	6445481	71	2.5	0.8	3.4	2.03	116.5	719.8	1924.8	0.7	0.04	0.26	4595	0.71
2025-Q1	6437360	70.9	2.3	0.9	3.1	3.9	126.7	741.6	1889.8	0.69	0.05	0.27	3820	0.59
2025-Q2	6437360	70.9	2.2	0.9	3.1	2.93	144.7	764.6	1851.2	0.67	0.05	0.28	5890	0.91
2025-Q3	6437360	70.8	2.3	0.9	3.1	3.67	134	746.2	1894.8	0.68	0.05	0.27	5730	0.89
2025-Q4	6437360	71	2	0.8	3.1	3.67	116	733.1	1892.8	0.69	0.04	0.27	4860	0.75

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.4: Main data for Croatia

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	4014341	60	5.3	1.7	2.9	1.1	86.3	395.9	983.5	0.67	0.06	0.27	–	0.3373
2018-Q2	4014341	60.5	4.6	1.8	2.9	1.8	77.6	419.5	1022.1	0.67	0.05	0.28	–	0.3373
2018-Q3	4014341	60.7	4.6	1.7	2.9	1.97	90.2	401.6	1041.3	0.68	0.06	0.26	–	0.3373
2018-Q4	4014341	61.1	4.4	1.6	2.9	1.33	79.9	404.9	988.1	0.67	0.05	0.27	–	0.3373
2019-Q1	3968676	62.2	3.8	1.6	3.1	0.83	81.3	440.6	976.7	0.65	0.05	0.29	–	0.5805
2019-Q2	3968676	61.5	3.7	1.5	3.1	0.77	87.4	403.4	1015.9	0.67	0.06	0.27	–	0.5805
2019-Q3	3968676	61.9	3.6	1.5	3.1	0.7	91.2	387.5	1046.5	0.69	0.06	0.25	–	0.5805
2019-Q4	3968676	62.4	3.8	1.4	3.1	0.9	71.5	409.7	1016.9	0.68	0.05	0.27	–	0.5805
2020-Q1	3933511	62.4	3.5	1.1	-8.3	1.17	71.3	438.3	989.6	0.66	0.05	0.29	–	0.6264
2020-Q2	3933511	61.9	3.9	0.7	-8.3	-0.4	90.2	401.8	993	0.67	0.06	0.27	–	0.6264
2020-Q3	3933511	62.4	4.6	1.3	-8.3	-0.43	101.8	404	1003.6	0.66	0.07	0.27	–	0.6264
2020-Q4	3933511	62.2	4.9	1.2	-8.3	-0.17	87.1	423.2	963.8	0.65	0.06	0.29	–	0.6264
2021-Q1	3893026	62.3	5.3	1.2	12.6	0.77	93.6	425.5	928.8	0.64	0.06	0.29	–	0.6178
2021-Q2	3893026	63.5	4.7	1.7	12.6	2.23	101.5	413.5	986.5	0.66	0.07	0.28	–	0.6178
2021-Q3	3893026	64.4	3.9	1.7	12.6	3.1	106.9	431	1000.6	0.65	0.07	0.28	–	0.6178
2021-Q4	3893026	65.3	3.5	1.7	12.6	4.6	96.2	445.4	980.9	0.64	0.06	0.29	–	0.6178
2022-Q1	3862305	65.3	3.7	1.7	7.3	6.37	88.4	446.5	960.2	0.64	0.06	0.3	4615	1.19
2022-Q2	3862305	64.9	4.3	1.7	7.3	10.8	82	428.8	1010.3	0.66	0.05	0.28	10135	2.62
2022-Q3	3862305	64.9	4.2	1.6	7.3	12.63	94.9	391.7	1040.5	0.68	0.06	0.26	2790	0.72
2022-Q4	3862305	65.9	3.9	1.6	7.3	12.8	83.6	396.3	1037.6	0.68	0.06	0.26	1575	0.41
2023-Q1	3850894	65.4	3.9	1.7	3.8	11.57	69.4	412.3	1005.2	0.68	0.05	0.28	1485	0.39
2023-Q2	3850894	65.8	3.5	1.6	3.8	8.5	65	431.3	1042.9	0.68	0.04	0.28	1765	0.46
2023-Q3	3850894	65.3	3.6	1.6	3.8	7.93	72.1	411.7	1045.1	0.68	0.05	0.27	950	0.25
2023-Q4	3850894	66.7	3.4	1.6	3.8	5.87	62.8	392.1	1076.5	0.7	0.04	0.26	690	0.18
2024-Q1	3861967	68.6	3	1.6	3.8	4.83	62.7	418.6	1100.9	0.7	0.04	0.26	645	0.17
2024-Q2	3861967	68.5	3	1.7	3.8	4.17	70.9	447.3	1107.2	0.68	0.04	0.28	1070	0.28
2024-Q3	3861967	68	3.2	1.5	3.8	3.13	64.2	427.1	1105.4	0.69	0.04	0.27	960	0.25
2024-Q4	3861967	68.1	2.9	1.6	3.8	4.03	73.3	401.2	1104.7	0.7	0.05	0.25	735	0.19
2025-Q1	3874350	68.8	3	1.4	3.2	4.7	73.3	420.9	1102.9	0.69	0.05	0.26	625	0.16
2025-Q2	3874350	68.5	3.1	1.4	3.2	4.23	61.2	423.8	1136.7	0.7	0.04	0.26	735	0.19
2025-Q3	3874350	68.9	2.7	1.5	3.2	4.57	62	410.6	1159.8	0.71	0.04	0.25	955	0.25
2025-Q4	3874350	69	2.9	1.5	3.2	4.03	75.4	409.2	1127.4	0.7	0.05	0.25	850	0.22

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.5: Main data for Cyprus

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	878601	67.3	6.5	1	6.3	-0.77	5.5	62.1	303.8	0.82	0.01	0.17	—	4.4423
2018-Q2	878601	68.8	5.3	1.3	6.3	0.8	6.3	61.9	319.8	0.82	0.02	0.16	—	4.4423
2018-Q3	878601	69	5.6	2.1	6.3	1.6	8	61.1	320.1	0.82	0.02	0.16	—	4.4423
2018-Q4	878601	69.1	5.3	1.3	6.3	1.5	6.6	65	317.9	0.82	0.02	0.17	—	4.4423
2019-Q1	890194	70.9	5.4	1.8	5.9	1.33	7.8	66.9	319.6	0.81	0.02	0.17	—	4.7035
2019-Q2	890194	71.5	4.8	1.6	5.9	0.57	8.9	71.2	327.5	0.8	0.02	0.17	—	4.7035
2019-Q3	890194	71.5	4.9	1.9	5.9	0.07	8.5	74.4	324.9	0.8	0.02	0.18	—	4.7035
2019-Q4	890194	71.8	4.5	1.7	5.9	0.23	10.6	76	326.4	0.79	0.03	0.18	—	4.7035
2020-Q1	902429	71.7	4.7	1.9	-3.2	0.6	8	76.6	323	0.79	0.02	0.19	—	4.5998
2020-Q2	902429	70.7	4.9	1	-3.2	-1.6	10.3	80.1	319.7	0.78	0.03	0.2	—	4.5998
2020-Q3	902429	70.6	5.7	1.6	-3.2	-2.27	9.3	79.8	319.2	0.78	0.02	0.2	—	4.5998
2020-Q4	902429	70.8	5.7	1.6	-3.2	-1.1	8.5	77.7	327.8	0.79	0.02	0.19	—	4.5998
2021-Q1	914476	70.2	5.4	1.9	11.4	-0.47	10.1	77.3	318.4	0.78	0.02	0.19	—	5.0007
2021-Q2	914476	71.3	5.5	2.4	11.4	1.63	9.3	75.5	335.2	0.8	0.02	0.18	—	5.0007
2021-Q3	914476	73.2	4.7	2.2	11.4	3.2	9.1	73.9	349	0.81	0.02	0.17	—	5.0007
2021-Q4	914476	73.3	4.5	2.7	11.4	4.63	8.1	71.9	354.4	0.82	0.02	0.17	—	5.0007
2022-Q1	929764	73.8	4.1	3.1	8.3	5.67	8.5	74.7	352.3	0.81	0.02	0.17	665	0.72
2022-Q2	929764	73.8	4.5	2.6	8.3	8.8	9.3	73.1	359.9	0.81	0.02	0.17	8050	8.66
2022-Q3	929764	74.4	4.5	2.1	8.3	9.73	8.9	73.8	364.8	0.82	0.02	0.16	2235	2.4
2022-Q4	929764	74.6	4.8	2.2	8.3	8.1	8.8	71.8	368.3	0.82	0.02	0.16	1505	1.62
2023-Q1	949084	75.2	4.4	2.7	3.6	6.53	10	72.6	369.2	0.82	0.02	0.16	2625	2.77
2023-Q2	949084	75.3	4.2	2.8	3.6	3.43	9.4	71.2	379.2	0.82	0.02	0.15	1760	1.85
2023-Q3	949084	75.3	4.1	2.8	3.6	3.27	10.7	68.8	382.1	0.83	0.02	0.15	1275	1.34
2023-Q4	949084	74.8	4	3	3.6	2.63	9.6	71.8	376.2	0.82	0.02	0.16	880	0.93
2024-Q1	966365	75.1	3.8	2.9	3.9	1.93	9.4	72.7	373.2	0.82	0.02	0.16	730	0.76
2024-Q2	966365	75.3	3.5	2.9	3.9	2.7	9.2	73.5	383.9	0.82	0.02	0.16	640	0.66
2024-Q3	966365	76.1	3.3	3.4	3.9	2.07	7.8	75.4	389.8	0.82	0.02	0.16	990	1.02
2024-Q4	966365	75.6	3.3	3.1	3.9	2.3	9	74.8	382.6	0.82	0.02	0.16	475	0.49
2025-Q1	982966	76.6	3.3	2.8	3.8	2.43	8.1	76.9	384.2	0.82	0.02	0.16	1075	1.09
2025-Q2	982966	76.7	3.2	3.2	3.8	0.77	8.9	77.4	395.2	0.82	0.02	0.16	945	0.96
2025-Q3	982966	77.1	3	2.9	3.8	0.03	9.1	75.7	397.7	0.82	0.02	0.16	500	0.51
2025-Q4	982966	77.1	3	3	3.8	0.13	8.5	76.6	399.4	0.82	0.02	0.16	650	0.66

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.6: Main data for Czechia

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	10610055	74.4	1.5	4.9	2.8	1.77	139.4	1943.6	3021.9	0.59	0.03	0.38	–	12.4051
2018-Q2	10610055	74.8	1.5	5.4	2.8	2.07	146.6	1949.3	3035.2	0.59	0.03	0.38	–	12.4051
2018-Q3	10610055	74.9	1.5	5.8	2.8	2.23	144.1	1942.3	3058.2	0.59	0.03	0.38	–	12.4051
2018-Q4	10610055	75.2	1.4	6	2.8	1.73	138.1	1977	3048.8	0.59	0.03	0.38	–	12.4051
2019-Q1	10649800	75.2	1.3	6.3	3.6	2.33	141.1	1937.9	3062.2	0.6	0.03	0.38	–	13.6538
2019-Q2	10649800	75.1	1.3	6.2	3.6	2.47	132.8	1936.7	3057	0.6	0.03	0.38	–	13.6538
2019-Q3	10649800	75.1	1.4	6.2	3.6	2.6	133.9	1937.1	3064.8	0.6	0.03	0.38	–	13.6538
2019-Q4	10649800	75.1	1.4	6	3.6	2.93	131.8	1949.3	3057.4	0.59	0.03	0.38	–	13.6538
2020-Q1	10693939	75	1.3	5.7	-5.3	3.7	126.8	1923	3060.5	0.6	0.02	0.38	–	15.4828
2020-Q2	10693939	74.3	1.6	5.5	-5.3	3.27	132	1926.1	2992.1	0.59	0.03	0.38	–	15.4828
2020-Q3	10693939	74.1	1.9	5.2	-5.3	3.47	131.5	1916	3024.5	0.6	0.03	0.38	–	15.4828
2020-Q4	10693939	74.1	2	5	-5.3	2.7	132.2	1900.4	3021	0.6	0.03	0.38	–	15.4828
2021-Q1	10494836	74	2.1	4.9	4	2.2	131.5	1888.7	2985.9	0.6	0.03	0.38	–	18.4421
2021-Q2	10494836	73.9	2	4.9	4	2.77	125.9	1894.6	2988	0.6	0.03	0.38	–	18.4421
2021-Q3	10494836	74.6	1.8	5.1	4	3.27	125.4	1897.9	3068.2	0.6	0.02	0.37	–	18.4421
2021-Q4	10494836	75	1.5	5	4	5	131	1871.7	3094.4	0.61	0.03	0.37	–	18.4421
2022-Q1	10516707	75.5	1.5	5.1	2.8	10.23	126.5	1851.4	3003.8	0.6	0.03	0.37	249465	23.72
2022-Q2	10516707	75.4	1.5	4.9	2.8	15	126.6	1849.7	3017.5	0.6	0.03	0.37	127435	12.12
2022-Q3	10516707	75.6	1.5	4.5	2.8	17.4	127.1	1858.8	3045.8	0.61	0.03	0.37	49655	4.72
2022-Q4	10516707	75.3	1.5	4.2	2.8	16.5	125.8	1864	3036.5	0.6	0.03	0.37	35520	3.38
2023-Q1	10827529	75.1	1.7	3.9	0	18	130.6	1782.6	2923.2	0.6	0.03	0.37	31040	2.87
2023-Q2	10827529	75.4	1.7	3.8	0	12.67	131.1	1769.8	2983.1	0.61	0.03	0.36	24385	2.25
2023-Q3	10827529	75	1.7	3.6	0	9.53	133.2	1769.1	2990.8	0.61	0.03	0.36	25265	2.33
2023-Q4	10827529	74.9	1.8	3.5	0	8.37	132.7	1770.3	2994.9	0.61	0.03	0.36	17800	1.64
2024-Q1	10900555	75.4	1.8	3.3	1.3	2.37	140.4	1800.1	3072.5	0.61	0.03	0.36	18920	1.74
2024-Q2	10900555	75.6	1.7	3.3	1.3	2.7	136.2	1792.7	3045.2	0.61	0.03	0.36	25235	2.32
2024-Q3	10900555	75.4	1.7	3.3	1.3	2.57	139	1798	3066.1	0.61	0.03	0.36	28280	2.59
2024-Q4	10900555	75.4	1.8	3.2	1.3	3.13	138.9	1801	3069.7	0.61	0.03	0.36	19395	1.78
2025-Q1	10909500	75.8	1.7	1.9	2.6	2.8	135.5	1792	3106.3	0.62	0.03	0.36	14570	1.34
2025-Q2	10909500	76.1	1.9	2	2.6	2.27	135.9	1778.9	3128.1	0.62	0.03	0.35	19950	1.83
2025-Q3	10909500	75.7	2	2	2.6	2.3	132.5	1782.8	3149	0.62	0.03	0.35	31200	2.86
2025-Q4	10909500	75.3	2.1	1.9	2.6	1.97	126.7	1749.4	3164.2	0.63	0.03	0.35	23675	2.17

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.7: Main data for Denmark

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	5781190	73.6	3.6	—	1.9	0.5	40.4	493.7	2121.1	0.8	0.02	0.19	—	2.0266
2018-Q2	5781190	74.2	3.6	—	1.9	0.93	47.1	488.8	2158.2	0.8	0.02	0.18	—	2.0266
2018-Q3	5781190	74.5	3.3	—	1.9	0.73	58	498.9	2158.1	0.79	0.02	0.18	—	2.0266
2018-Q4	5781190	74.2	3.6	—	1.9	0.7	60.1	508	2129.8	0.79	0.02	0.19	—	2.0266
2019-Q1	5806081	74.4	3.6	—	1.7	1.17	44.7	494.4	2155.5	0.8	0.02	0.18	—	2.191
2019-Q2	5806081	75	3.5	—	1.7	0.7	51.7	489.1	2189.6	0.8	0.02	0.18	—	2.191
2019-Q3	5806081	75.4	3.4	—	1.7	0.43	58.3	496.1	2196.6	0.8	0.02	0.18	—	2.191
2019-Q4	5806081	75.2	3.5	—	1.7	0.67	59.6	491	2183.8	0.8	0.02	0.18	—	2.191
2020-Q1	5822763	74.8	3.4	—	-1.8	0.6	46.7	478.1	2186.1	0.81	0.02	0.18	—	2.2019
2020-Q2	5822763	74	3.8	—	-1.8	-0.03	42.5	482.4	2150.9	0.8	0.02	0.18	—	2.2019
2020-Q3	5822763	74.3	4.4	—	-1.8	0.43	49.3	510.6	2134.4	0.79	0.02	0.19	—	2.2019
2020-Q4	5822763	74.6	4.1	—	-1.8	0.37	52.4	509.5	2153.2	0.79	0.02	0.19	—	2.2019
2021-Q1	5840045	73.9	4.2	—	6.5	0.6	46.6	496.3	2120.3	0.8	0.02	0.19	—	2.3484
2021-Q2	5840045	75.6	3.6	—	6.5	1.77	42.5	527.7	2174	0.79	0.02	0.19	—	2.3484
2021-Q3	5840045	75.8	3.3	—	6.5	1.97	46.7	533.6	2186.2	0.79	0.02	0.19	—	2.3484
2021-Q4	5840045	76.5	3.2	—	6.5	3.47	52	520.6	2216.5	0.79	0.02	0.19	—	2.3484
2022-Q1	5873420	76.4	3.1	—	0.4	5.4	52.5	506.3	2211.9	0.8	0.02	0.18	1220	0.21
2022-Q2	5873420	77	3.1	—	0.4	8.23	46.3	522.5	2236.7	0.8	0.02	0.19	23835	4.06
2022-Q3	5873420	77	3.3	—	0.4	10.2	56	540.8	2236.1	0.79	0.02	0.19	4405	0.75
2022-Q4	5873420	76.8	3.3	—	0.4	10.23	49.3	526	2256.7	0.8	0.02	0.19	3110	0.53
2023-Q1	5932654	76.7	3.4	—	0.6	8	44.6	534.7	2249.3	0.8	0.02	0.19	2715	0.46
2023-Q2	5932654	76.2	3.5	—	0.6	3.63	52.9	525	2245	0.8	0.02	0.19	2035	0.34
2023-Q3	5932654	76.7	3.5	—	0.6	2.03	53.1	553.7	2221.2	0.79	0.02	0.2	1935	0.33
2023-Q4	5932654	76.8	4.3	—	0.6	0.1	40.6	523.1	2281.5	0.8	0.01	0.18	1655	0.28
2024-Q1	5961249	77.2	4.3	—	3.5	0.77	41.2	525.3	2294.5	0.8	0.01	0.18	1885	0.32
2024-Q2	5961249	77.4	4.5	—	3.5	1.47	43.9	521.4	2321.4	0.8	0.02	0.18	2315	0.39
2024-Q3	5961249	77.4	4.8	—	3.5	1.2	36.2	514	2289.9	0.81	0.01	0.18	2865	0.48
2024-Q4	5961249	76.8	4.8	—	3.5	1.67	30.3	540.9	2240.9	0.8	0.01	0.19	2510	0.42
2025-Q1	5992734	76.9	4.7	—	2.9	1.6	36.3	549.9	2268.1	0.79	0.01	0.19	2625	0.44
2025-Q2	5992734	77.5	4.7	—	2.9	1.6	34.3	537.2	2310.6	0.8	0.01	0.19	1915	0.32
2025-Q3	5992734	77	4.8	—	2.9	2.1	42.9	541.5	2299.5	0.8	0.01	0.19	3260	0.54
2025-Q4	5992734	76.2	4.7	—	2.9	2	43.5	512.6	2303.9	0.81	0.02	0.18	5865	0.98

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.8: Main data for Estonia

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	1319133	74.6	4.7	1.9	3.7	3.23	18	168	366	0.66	0.03	0.3	—	7.8339
2018-Q2	1319133	75.2	3.6	1.9	3.7	3.3	19.5	161.7	368.2	0.67	0.04	0.29	—	7.8339
2018-Q3	1319133	74.5	3.9	1.8	3.7	3.43	23	159.9	369.9	0.67	0.04	0.29	—	7.8339
2018-Q4	1319133	75.7	3.3	1.9	3.7	3.67	20.3	167.4	379.1	0.67	0.04	0.3	—	7.8339
2019-Q1	1324820	75	3.2	2	3.7	2.3	19.1	171.3	359.9	0.65	0.03	0.31	—	8.7121
2019-Q2	1324820	75	3.6	1.8	3.7	2.97	20.5	156.1	372.9	0.68	0.04	0.28	—	8.7121
2019-Q3	1324820	75.8	2.9	1.8	3.7	2.1	21.2	159.3	380.9	0.68	0.04	0.28	—	8.7121
2019-Q4	1324820	76.2	3.1	1.9	3.7	1.67	20.1	169	383.8	0.67	0.04	0.29	—	8.7121
2020-Q1	1328976	75.5	3.5	1.5	-2.9	1.53	18.3	157.1	382	0.69	0.03	0.28	—	9.6939
2020-Q2	1328976	73	5.1	1.3	-2.9	-1.43	19.3	149.5	347.1	0.67	0.04	0.29	—	9.6939
2020-Q3	1328976	73.7	5.7	1.3	-2.9	-1.3	17.3	155.3	366.6	0.68	0.03	0.29	—	9.6939
2020-Q4	1328976	74.1	5.7	1.6	-2.9	-1.27	18	156.5	379.2	0.68	0.03	0.28	—	9.6939
2021-Q1	1330068	73.4	4.8	1.6	8.3	0.57	17.1	154.1	372.4	0.69	0.03	0.28	—	10.7378
2021-Q2	1330068	73.1	4.8	1.7	8.3	2.83	15.8	139.6	365.5	0.7	0.03	0.27	—	10.7378
2021-Q3	1330068	74.5	4.3	1.7	8.3	5.43	13.7	148	372.5	0.7	0.03	0.28	—	10.7378
2021-Q4	1330068	75.3	3.8	2	8.3	9.13	13.4	156.4	383.7	0.69	0.02	0.28	—	10.7378
2022-Q1	1331796	76	3.9	2.2	-1.2	12.47	14.9	157.6	391.7	0.69	0.03	0.28	13915	10.45
2022-Q2	1331796	76.1	4.3	2.1	-1.2	20.4	17.4	153.6	394	0.7	0.03	0.27	14820	11.13
2022-Q3	1331796	76.4	4.3	1.9	-1.2	24.17	15.9	168.8	390.2	0.68	0.03	0.29	7565	5.68
2022-Q4	1331796	77.1	4	2	-1.2	20.47	16.3	162.8	398.4	0.69	0.03	0.28	5375	4.04
2023-Q1	1365884	76.4	3.8	1.9	-2.7	17.33	15.9	150.5	421	0.72	0.03	0.26	2705	1.98
2023-Q2	1365884	76.4	4.9	1.8	-2.7	11.13	16.4	167.2	413.1	0.69	0.03	0.28	2040	1.49
2023-Q3	1365884	76	5.6	1.9	-2.7	4.8	16.6	161.3	413.5	0.7	0.03	0.27	2315	1.69
2023-Q4	1365884	76	4.7	1.7	-2.7	4.47	16.4	139.2	374.4	0.71	0.03	0.26	1695	1.24
2024-Q1	1374687	75.6	5.6	1.6	-0.1	4.5	21.3	121.9	387.8	0.73	0.04	0.23	1290	0.94
2024-Q2	1374687	76.3	5.6	1.6	-0.1	3	23.3	125	400.1	0.73	0.04	0.23	1430	1.04
2024-Q3	1374687	75.5	5.8	1.6	-0.1	3.37	19	145	392.7	0.71	0.03	0.26	1730	1.26
2024-Q4	1374687	75.4	5.6	1.6	-0.1	4.13	17	134.7	385.8	0.72	0.03	0.25	1630	1.19
2025-Q1	1369995	74.6	6.1	1.6	0.6	4.4	10.9	98.5	393.9	0.78	0.02	0.2	1265	0.92
2025-Q2	1369995	75.2	5.8	1.7	0.6	4.73	14.8	120.6	385.8	0.74	0.03	0.23	1330	0.97
2025-Q3	1369995	76.3	5.5	1.5	0.6	5.7	21.6	141.4	382.1	0.7	0.04	0.26	1520	1.11
2025-Q4	1369995	75.3	4.8	1.6	0.6	4.4	8.6	117.9	389.9	0.76	0.02	0.23	1500	1.09

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.9: Main data for Finland

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	5513130	70.4	5.6	2.1	1.2	0.77	74.9	528.6	1774.9	0.75	0.03	0.22	—	0.8685
2018-Q2	5513130	71	4.9	2.2	1.2	1	83.4	551.6	1846	0.74	0.03	0.22	—	0.8685
2018-Q3	5513130	71.5	4.8	2.3	1.2	1.4	87	566.2	1827.3	0.74	0.04	0.23	—	0.8685
2018-Q4	5513130	71.6	4.4	2.2	1.2	1.47	76.5	546.7	1819.6	0.74	0.03	0.22	—	0.8685
2019-Q1	5517919	71.9	4.4	2.2	1.3	1.2	78.7	516.8	1827.8	0.75	0.03	0.21	—	0.9991
2019-Q2	5517919	71.7	4.5	2.2	1.3	1.3	85.6	553.9	1855.4	0.74	0.03	0.22	—	0.9991
2019-Q3	5517919	72	4.4	2.2	1.3	1.07	85.1	551.3	1865.9	0.75	0.03	0.22	—	0.9991
2019-Q4	5517919	72.3	4.5	2.2	1.3	0.93	80.5	523	1852.1	0.75	0.03	0.21	—	0.9991
2020-Q1	5525292	72.3	4.5	2.2	-2.5	1.07	75.9	518.7	1834.6	0.76	0.03	0.21	—	1.1969
2020-Q2	5525292	69.8	5	1.6	-2.5	-0.1	78.7	547.2	1798.3	0.74	0.03	0.23	—	1.1969
2020-Q3	5525292	71.1	5.5	1.8	-2.5	0.43	78.5	547.6	1823.4	0.74	0.03	0.22	—	1.1969
2020-Q4	5525292	71.4	5.4	2	-2.5	0.2	77.2	530.7	1812.3	0.75	0.03	0.22	—	1.1969
2021-Q1	5533793	71.8	5.4	2.1	2.7	1.1	79.2	507	1783.6	0.75	0.03	0.21	—	1.547
2021-Q2	5533793	72.4	5.4	2.4	2.7	2.13	89.5	541.8	1838.7	0.74	0.04	0.22	—	1.547
2021-Q3	5533793	72.8	4.9	2.8	2.7	1.9	85.3	543.4	1847.1	0.75	0.03	0.22	—	1.547
2021-Q4	5533793	73.8	4.7	3	2.7	3.17	83.9	515	1858.8	0.76	0.03	0.21	—	1.547
2022-Q1	5548241	73.9	4.6	3.1	0.8	4.77	74.1	517.5	1849.3	0.76	0.03	0.21	2795	0.5
2022-Q2	5548241	74.3	4.4	3.1	0.8	7	78.9	535	1919.6	0.76	0.03	0.21	25410	4.58
2022-Q3	5548241	74.3	4.9	2.8	0.8	8.1	85.7	546.6	1877	0.75	0.03	0.22	10270	1.85
2022-Q4	5548241	74.7	4.7	2.5	0.8	8.77	74.7	553.1	1871.9	0.75	0.03	0.22	6425	1.16
2023-Q1	5563970	74.4	4.6	2.5	-1.3	7.53	64.4	543	1847	0.75	0.03	0.22	5565	1
2023-Q2	5563970	74.3	4.9	2.2	-1.3	5.13	77.1	564.7	1896.3	0.75	0.03	0.22	4975	0.89
2023-Q3	5563970	74	5.1	2.2	-1.3	3.43	80	545.4	1883.8	0.75	0.03	0.22	4920	0.88
2023-Q4	5563970	73.5	5.2	2.1	-1.3	1.47	68.9	512.7	1891.7	0.76	0.03	0.21	3060	0.55
2024-Q1	5603851	73.3	5.5	1.9	0.4	0.93	64.5	511.4	1871.9	0.76	0.03	0.21	2140	0.38
2024-Q2	5603851	72.6	5.8	1.9	0.4	0.5	73.4	534.8	1903.4	0.76	0.03	0.21	3575	0.64
2024-Q3	5603851	72.4	5.8	1.7	0.4	0.87	76.5	528	1884.7	0.76	0.03	0.21	3885	0.69
2024-Q4	5603851	72	6	1.6	0.4	1.6	68.8	497.4	1867.3	0.77	0.03	0.2	2540	0.45
2025-Q1	5635971	72	6.4	1.5	0.2	1.67	64.3	513.3	1847.4	0.76	0.03	0.21	1805	0.32
2025-Q2	5635971	71.9	6.4	1.3	0.2	1.93	64.2	542.3	1887.6	0.76	0.03	0.22	2630	0.47
2025-Q3	5635971	71.7	6.8	1.3	0.2	2.1	70.8	534	1864.7	0.76	0.03	0.22	3825	0.68
2025-Q4	5635971	71.8	7.3	1.1	0.2	1.53	71.4	504.9	1873.7	0.76	0.03	0.21	2220	0.39

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.10: Main data for France

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	67026224	65.9	5.8	1.8	1.6	1.5	607.9	5311.5	20054.8	0.77	0.02	0.2	—	0.1941
2018-Q2	67026224	66	5.7	1.8	1.6	2.13	612.4	5335.6	20259.3	0.77	0.02	0.2	—	0.1941
2018-Q3	67026224	66.2	5.6	1.9	1.6	2.57	636	5292.8	20278	0.77	0.02	0.2	—	0.1941
2018-Q4	67026224	66.4	5.5	2	1.6	2.2	621.8	5336.4	20152.7	0.77	0.02	0.2	—	0.1941
2019-Q1	67290471	66.3	5.5	2.1	2	1.43	598.3	5311.6	20068.4	0.77	0.02	0.2	—	0.2108
2019-Q2	67290471	66.3	5.3	2.1	2	1.33	618.9	5427.2	20169.8	0.77	0.02	0.21	—	0.2108
2019-Q3	67290471	66.1	5.2	2.1	2	1.23	656.2	5357.2	20155.5	0.77	0.03	0.2	—	0.2108
2019-Q4	67290471	66.8	5.2	2.2	2	1.23	648.5	5342.8	20245.8	0.77	0.02	0.2	—	0.2108
2020-Q1	67473651	66.8	4.9	—	-7.4	1.37	605.6	5330	20235.7	0.77	0.02	0.2	—	0.2606
2020-Q2	67473651	65.2	4.3	2.2	-7.4	0.33	584.7	5191.1	20008.3	0.78	0.02	0.2	—	0.2606
2020-Q3	67473651	65.9	5.5	2.1	-7.4	0.37	596.3	5269.9	20152.5	0.77	0.02	0.2	—	0.2606
2020-Q4	67473651	66.6	5.1	1.8	-7.4	0.1	570.3	5201.5	20320.7	0.78	0.02	0.2	—	0.2606
2021-Q1	67728568	66.5	5.1	2.2	6.9	1	648.2	5216.4	19786.2	0.77	0.03	0.2	—	0.2748
2021-Q2	67728568	67	5	2.6	6.9	1.77	633	5131.9	20458.5	0.78	0.02	0.2	—	0.2748
2021-Q3	67728568	67.6	4.9	2.8	6.9	2.2	668.6	5195.2	20927.3	0.78	0.02	0.19	—	0.2748
2021-Q4	67728568	67.9	4.7	3.1	6.9	3.33	641.6	5229.9	20939.8	0.78	0.02	0.2	—	0.2748
2022-Q1	68091703	67.8	4.6	3.3	2.7	4.2	663.6	5262.5	20996.4	0.78	0.02	0.2	26330	0.39
2022-Q2	68091703	68	4.7	3.3	2.7	5.9	653.9	5289	21283.1	0.78	0.02	0.19	35845	0.53
2022-Q3	68091703	68.3	4.6	3.4	2.7	6.53	683.8	5317	21498.5	0.78	0.02	0.19	10775	0.16
2022-Q4	68091703	68.5	4.6	3.4	2.7	6.97	673.1	5383.9	21360.4	0.78	0.02	0.2	8440	0.12
2023-Q1	68277210	68.4	4.5	3.3	1.4	7	666.1	5431.3	21360	0.78	0.02	0.2	5265	0.08
2023-Q2	68277210	68.5	4.6	3.2	1.4	6.07	659.9	5414.3	21614.1	0.78	0.02	0.2	3895	0.06
2023-Q3	68277210	68.3	4.7	3	1.4	5.5	690.6	5388.4	21644.5	0.78	0.02	0.19	4060	0.06
2023-Q4	68277210	68.6	4.8	2.9	1.4	4.17	616.9	5333.8	21642.4	0.78	0.02	0.19	3545	0.05
2024-Q1	68669303	68.7	4.8	2.8	1.2	3	637.1	5354.8	21457.3	0.78	0.02	0.2	2890	0.04
2024-Q2	68669303	68.9	4.7	2.7	1.2	2.5	637.8	5530.3	21597.2	0.78	0.02	0.2	2895	0.04
2024-Q3	68669303	69.2	4.8	2.6	1.2	2.1	654.8	5492.9	21702.7	0.78	0.02	0.2	3100	0.05
2024-Q4	68669303	69.1	4.7	2.5	1.2	1.7	602.1	5528.3	21435.5	0.78	0.02	0.2	2835	0.04
2025-Q1	68882600	69.4	4.8	2.5	0.8	1.2	599.3	5597.7	21716.4	0.78	0.02	0.2	2295	0.03
2025-Q2	68882600	69.6	4.9	2.4	0.8	0.8	653.1	5667.9	21956.9	0.78	0.02	0.2	2030	0.03
2025-Q3	68882600	69.4	5	2.4	0.8	0.93	630	5719.7	22020.3	0.78	0.02	0.2	2500	0.04
2025-Q4	68882600	69.4	5.1	2.3	0.8	0.77	657.5	5642.8	21898.7	0.78	0.02	0.2	2570	0.04

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.11: Main data for Germany

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	82792351	74.8	2.2	2.9	1.1	1.47	470.3	11086.5	28654.9	0.71	0.01	0.28	—	1.4602
2018-Q2	82792351	75	2.2	3	1.1	1.97	447.5	11012.3	28586.3	0.71	0.01	0.27	—	1.4602
2018-Q3	82792351	75.1	2.2	3.1	1.1	2.17	519.8	11358.6	28781.5	0.71	0.01	0.28	—	1.4602
2018-Q4	82792351	75.3	2.1	3.2	1.1	2.17	444	11215	29018.8	0.71	0.01	0.28	—	1.4602
2019-Q1	83019213	75.6	2.1	3.3	1	1.6	446.2	11254	28857.8	0.71	0.01	0.28	—	1.01
2019-Q2	83019213	76	2	3.4	1	1.63	436.2	11051.5	28946.8	0.72	0.01	0.27	—	1.01
2019-Q3	83019213	75.9	2	3.3	1	1	490.2	11321.9	29085.9	0.71	0.01	0.28	—	1.01
2019-Q4	83019213	75.8	2.1	3.1	1	1.2	466	11225.4	29665.1	0.72	0.01	0.27	—	1.01
2020-Q1	83166711	74.9	2.2	2.9	-4.1	1.53	0	0	0	—	—	—	—	0.9641
2020-Q2	83166711	74.6	2.5	2.1	-4.1	0.7	0	0	0	—	—	—	—	0.9641
2020-Q3	83166711	74.5	2.6	2.4	-4.1	-0.17	0	0	0	—	—	—	—	0.9641
2020-Q4	83166711	74.6	2.5	2.6	-4.1	-0.63	0	0	0	—	—	—	—	0.9641
2021-Q1	83155031	74.9	2.7	2.9	3.9	1.73	429.5	10799.9	27184.4	0.71	0.01	0.28	—	1.3142
2021-Q2	83155031	75.6	2.6	2.9	3.9	2.2	485.3	10831.8	27500.7	0.71	0.01	0.28	—	1.3142
2021-Q3	83155031	76.4	2.3	3.4	3.9	3.53	472.2	10831.4	28176.1	0.71	0.01	0.27	—	1.3142
2021-Q4	83155031	76.4	2.3	3.7	3.9	5.43	431.9	10897.1	28294.9	0.71	0.01	0.28	—	1.3142
2022-Q1	83237124	76.9	2.2	4.1	1.8	6.07	441.7	10844.2	28293.5	0.71	0.01	0.27	0	0
2022-Q2	83237124	77.1	2.2	4.5	1.8	8.23	488.1	10851.4	28809.3	0.72	0.01	0.27	0	0
2022-Q3	83237124	76.9	2.2	4.3	1.8	9.4	480.2	10932.7	28879.5	0.72	0.01	0.27	114120	1.37
2022-Q4	83237124	76.9	2.2	4.3	1.8	10.83	463.1	10938.2	29172.9	0.72	0.01	0.27	99090	1.19
2023-Q1	83118501	77.4	2.1	4.2	-0.9	8.77	482.8	10792.7	29119.5	0.72	0.01	0.27	82570	0.99
2023-Q2	83118501	77.4	2.1	4.2	-0.9	6.9	435.6	10859.2	29269.9	0.72	0.01	0.27	62790	0.76
2023-Q3	83118501	77.2	2.2	4.1	-0.9	5.73	443.1	10955.5	29117.3	0.72	0.01	0.27	61205	0.74
2023-Q4	83118501	77	2.2	3.6	-0.9	3.03	434.2	10923	29375.9	0.72	0.01	0.27	54820	0.66
2024-Q1	83456045	77.3	2.3	3.5	-0.5	2.7	411.5	10805.2	29259.3	0.72	0.01	0.27	47365	0.57
2024-Q2	83456045	77.5	2.4	3.2	-0.5	2.57	396	10801.2	29385.9	0.72	0.01	0.27	38100	0.46
2024-Q3	83456045	77.5	2.5	3.1	-0.5	2.13	438.5	10821.3	29381	0.72	0.01	0.27	42375	0.51
2024-Q4	83456045	77.6	2.4	3	-0.5	2.53	425.1	10961.4	29598.6	0.72	0.01	0.27	38015	0.46
2025-Q1	83577140	77.5	2.5	2.7	0.2	2.57	398.2	10758.7	29483.7	0.73	0.01	0.26	35880	0.43
2025-Q2	83577140	77.3	2.7	2.6	0.2	2.1	388.8	10805.6	29406.7	0.72	0.01	0.27	27650	0.33
2025-Q3	83577140	77.4	2.7	2.5	0.2	2.1	424.9	10641	29325.9	0.73	0.01	0.26	35595	0.43
2025-Q4	83577140	77.3	2.7	2.6	0.2	2.3	414	10566.2	29647.2	0.73	0.01	0.26	38490	0.46

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.12: Main data for Greece

qtr	pop	emp	unemp	jvac	gdpg	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	10667336	53.8	12.3	0.5	2.1	0.27	433.8	567.9	2635.4	0.72	0.12	0.16	—	1.8177
2018-Q2	10667336	54.4	11.8	0.7	2.1	0.77	440.9	574.5	2754.2	0.73	0.12	0.15	—	1.8177
2018-Q3	10667336	54.7	11.5	0.8	2.1	0.93	440.8	578	2784.5	0.73	0.12	0.15	—	1.8177
2018-Q4	10667336	55.1	11.3	0.6	2.1	1.17	436.2	574.5	2733.6	0.73	0.12	0.15	—	1.8177
2019-Q1	10635213	55.5	11.4	0.6	2.3	0.77	433.9	569.1	2718.8	0.73	0.12	0.15	—	1.7942
2019-Q2	10635213	56.1	10.5	0.6	2.3	0.63	421.4	596.6	2839.9	0.74	0.11	0.15	—	1.7942
2019-Q3	10635213	56.2	10.5	0.7	2.3	0.23	413.7	600.3	2855.7	0.74	0.11	0.16	—	1.7942
2019-Q4	10635213	56.7	10.2	0.7	2.3	0.43	408.7	589.5	2800.8	0.74	0.11	0.16	—	1.7942
2020-Q1	10612591	55.4	9.7	0.5	-9.2	0.57	389.7	576.9	2783.6	0.74	0.1	0.15	—	1.7765
2020-Q2	10612591	49.8	10.4	0.3	-9.2	-1.17	389.9	572.5	2775.3	0.74	0.1	0.15	—	1.7765
2020-Q3	10612591	55.4	10	0.4	-9.2	-2.23	368	572.3	2873.8	0.75	0.1	0.15	—	1.7765
2020-Q4	10612591	54.1	9.9	0.5	-9.2	-2.17	362.2	554.9	2848.6	0.76	0.1	0.15	—	1.7765
2021-Q1	10553344	54.1	9.3	0.3	8.7	-2.1	405.1	546.7	2559.2	0.73	0.12	0.16	—	1.9646
2021-Q2	10553344	56.4	9.1	0.5	8.7	-0.57	407.2	567.2	2821.1	0.74	0.11	0.15	—	1.9646
2021-Q3	10553344	58.9	8.3	0.7	8.7	1.27	405.4	609.3	2980.6	0.75	0.1	0.15	—	1.9646
2021-Q4	10553344	59.7	7.9	0.8	8.7	3.73	417.3	613.7	2895.1	0.74	0.11	0.16	—	1.9646
2022-Q1	10461627	60.5	8	0.7	5.5	6.6	415.2	609.8	2890.9	0.74	0.11	0.16	0	0
2022-Q2	10461627	60.4	7.5	1.1	5.5	10.4	422	620.5	2994.6	0.74	0.1	0.15	16580	1.58
2022-Q3	10461627	60.8	7.4	1	5.5	11.53	428.5	632.8	3026.5	0.74	0.1	0.15	3000	0.29
2022-Q4	10461627	61.2	7.2	1	5.5	8.63	434.2	637.5	2930.2	0.73	0.11	0.16	1725	0.16
2023-Q1	10401868	61.5	6.8	1.4	2.1	6.4	443.6	636.1	2889	0.73	0.11	0.16	1175	0.11
2023-Q2	10401868	61.7	6.8	1.5	2.1	3.8	428.7	641.3	3035.2	0.74	0.1	0.16	1870	0.18
2023-Q3	10401868	61.7	6.8	1.6	2.1	3.13	441.6	657.8	3021.6	0.73	0.11	0.16	1385	0.13
2023-Q4	10401868	62.2	6.4	2.1	2.1	3.47	453.9	658.7	2930.7	0.72	0.11	0.16	755	0.07
2024-Q1	10375764	62.9	7	2.7	2.1	3.23	439.3	669.8	2918.4	0.72	0.11	0.17	810	0.08
2024-Q2	10375764	63.3	6.1	2.3	2.1	2.7	436.9	662	3085.5	0.74	0.1	0.16	2810	0.27
2024-Q3	10375764	63.1	5.7	2	2.1	3.1	428.2	691.7	3055.5	0.73	0.1	0.17	1300	0.13
2024-Q4	10375764	63.9	5.9	1.5	2.1	3	413.4	682.2	3028.3	0.73	0.1	0.17	795	0.08
2025-Q1	10372335	64.1	5.8	2	2.1	3.07	390.1	673.4	3010.6	0.74	0.1	0.17	675	0.07
2025-Q2	10372335	64.5	5.4	1.4	2.1	3.17	376.7	691.8	3159	0.75	0.09	0.16	3030	0.29
2025-Q3	10372335	64.6	5.4	1.8	2.1	2.87	348	691.6	3195.7	0.75	0.08	0.16	1155	0.11
2025-Q4	10372335	65.2	5.2	1.6	2.1	2.43	339.3	692.7	3145.8	0.75	0.08	0.17	735	0.07

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpg = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.13: Main data for Hungary

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	9713655	71.2	2.3	2.6	5.6	2	212.7	1413.2	2727.8	0.63	0.05	0.32	—	2.735
2018-Q2	9713655	71.6	2.2	2.6	5.6	2.83	210.6	1423.8	2750.4	0.63	0.05	0.32	—	2.735
2018-Q3	9713655	71.7	2.4	2.8	5.6	3.5	205.1	1434.7	2756.1	0.63	0.05	0.33	—	2.735
2018-Q4	9713655	71.9	2.3	2.8	5.6	3.3	212.8	1443.2	2737.5	0.62	0.05	0.33	—	2.735
2019-Q1	9700272	72.4	2.2	2.6	5.1	3.27	199.6	1423.6	2780	0.63	0.05	0.32	—	5.8088
2019-Q2	9700272	72.4	2.1	2.5	5.1	3.77	214.1	1422.6	2762.5	0.63	0.05	0.32	—	5.8088
2019-Q3	9700272	72.2	2.2	2.4	5.1	3.13	201.6	1415.2	2782.1	0.63	0.05	0.32	—	5.8088
2019-Q4	9700272	72.4	2.1	2.4	5.1	3.5	207	1425.3	2763.5	0.63	0.05	0.32	—	5.8088
2020-Q1	9689376	72.3	2.3	1.9	-4.3	4.33	207.3	1409.5	2726	0.63	0.05	0.32	—	5.9721
2020-Q2	9689376	71.5	2.9	2	-4.3	2.53	202.5	1368.3	2694.2	0.63	0.05	0.32	—	5.9721
2020-Q3	9689376	72.3	2.8	2	-4.3	3.77	198	1393.5	2748.6	0.63	0.05	0.32	—	5.9721
2020-Q4	9689376	72.4	2.7	2.1	-4.3	2.87	200	1378.9	2753.2	0.64	0.05	0.32	—	5.9721
2021-Q1	9651461	72.3	2.8	2	7.2	3.37	194.2	1403	2822.1	0.64	0.04	0.32	—	6.5456
2021-Q2	9651461	73.2	2.7	2.3	7.2	5.27	191.2	1421.6	2862.9	0.64	0.04	0.32	—	6.5456
2021-Q3	9651461	73.5	2.6	2.5	7.2	5.03	194.4	1425.1	2889.8	0.64	0.04	0.32	—	6.5456
2021-Q4	9651461	74.1	2.5	2.5	7.2	7.17	188.5	1426.7	2913	0.64	0.04	0.32	—	6.5456
2022-Q1	9610403	74.5	2.4	2.7	4.2	8.3	184.5	1417.8	2910.9	0.64	0.04	0.31	1440	0.15
2022-Q2	9610403	74.5	2.2	3	4.2	11	193	1435.5	2903.2	0.64	0.04	0.32	19660	2.05
2022-Q3	9610403	74.5	2.4	2.7	4.2	18	195.1	1432.9	2915.4	0.64	0.04	0.32	5910	0.61
2022-Q4	9610403	74.6	2.6	2.6	4.2	23.33	194.7	1435.4	2905.3	0.64	0.04	0.32	2690	0.28
2023-Q1	9599744	74.8	2.6	2.6	-0.8	25.87	187.7	1412.1	2919.4	0.65	0.04	0.31	2190	0.23
2023-Q2	9599744	74.9	2.7	2.4	-0.8	22.07	198.6	1427.1	2923.2	0.64	0.04	0.31	1820	0.19
2023-Q3	9599744	74.8	2.8	2.4	-0.8	14.63	206.2	1434.1	2923.7	0.64	0.05	0.31	1595	0.17
2023-Q4	9599744	75.1	3	2.4	-0.8	7.6	193.4	1428.9	2939.6	0.64	0.04	0.31	1165	0.12
2024-Q1	9584627	75.1	3.1	2.2	0.6	3.63	196.3	1414.6	2927.4	0.65	0.04	0.31	1260	0.13
2024-Q2	9584627	75.2	3	2.2	0.6	3.7	191.5	1424.7	2938.2	0.65	0.04	0.31	1785	0.19
2024-Q3	9584627	75.1	3.1	2.2	0.6	3.5	183.4	1425.1	2957	0.65	0.04	0.31	1660	0.17
2024-Q4	9584627	75	3	2.1	0.6	4.03	183.9	1408.7	2956.9	0.65	0.04	0.31	1445	0.15
2025-Q1	9539502	75.4	2.9	2.1	0.4	5.4	191.4	1393.2	2956.3	0.65	0.04	0.31	1160	0.12
2025-Q2	9539502	74.9	3.1	2.1	0.4	4.43	194.7	1386.8	2928.3	0.65	0.04	0.31	945	0.1
2025-Q3	9539502	75.2	3.1	2	0.4	4.23	197.7	1377.3	2957.9	0.65	0.04	0.3	1240	0.13
2025-Q4	9539502	74.9	3	2	0.4	3.73	195.9	1321.2	2976.1	0.66	0.04	0.29	1495	0.16

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.14: Main data for Ireland

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	4855733	68	4	1	7.7	0.5	83.4	377.4	1623.4	0.78	0.04	0.18	—	0.3715
2018-Q2	4855733	68.4	3.9	1.1	7.7	0.43	76.6	387.4	1659.2	0.78	0.04	0.18	—	0.3715
2018-Q3	4855733	68.7	3.8	1	7.7	1.03	76.6	389.6	1668.3	0.78	0.04	0.18	—	0.3715
2018-Q4	4855733	68.9	3.7	1	7.7	0.9	75	393.8	1692.5	0.78	0.03	0.18	—	0.3715
2019-Q1	4940311	69.3	3.4	1.2	5	0.87	75.2	398.2	1697.3	0.78	0.03	0.18	—	0.4447
2019-Q2	4940311	69.1	3.5	1.1	5	1.27	76	401.1	1703.6	0.78	0.03	0.18	—	0.4447
2019-Q3	4940311	69.2	3.3	0.9	5	0.57	74.2	407.3	1713.1	0.78	0.03	0.19	—	0.4447
2019-Q4	4940311	70	3.2	1	5	0.83	78.1	398.2	1737.7	0.78	0.04	0.18	—	0.4447
2020-Q1	5012600	69.9	3.2	0.8	7.2	0.83	79.2	403.7	1736.4	0.78	0.04	0.18	—	0.4311
2020-Q2	5012600	63.2	3.2	0.7	7.2	-0.57	68.9	376.3	1623.6	0.78	0.03	0.18	—	0.4311
2020-Q3	5012600	65.9	4.6	0.8	7.2	-0.97	68	399.4	1678.3	0.78	0.03	0.19	—	0.4311
2020-Q4	5012600	67	4.2	0.9	7.2	-1.17	75.4	396.6	1678.4	0.78	0.04	0.18	—	0.4311
2021-Q1	5066893	66	4.7	1	16.3	-0.13	75.5	379.6	1637.7	0.78	0.04	0.18	—	0.4231
2021-Q2	5066893	68.8	4.8	1.2	16.3	1.53	73.8	395.4	1738.5	0.79	0.03	0.18	—	0.4231
2021-Q3	5066893	71.6	3.8	1.5	16.3	3	75.6	411.1	1854.8	0.79	0.03	0.18	—	0.4231
2021-Q4	5066893	72.8	3.7	1.5	16.3	5.4	75.9	415.8	1872.2	0.79	0.03	0.18	—	0.4231
2022-Q1	5154277	73.2	3.4	1.6	7.5	5.87	75.1	434.1	1873.1	0.79	0.03	0.18	12640	2.45
2022-Q2	5154277	73.6	3.1	1.6	7.5	8.4	76.9	439.6	1902.1	0.79	0.03	0.18	26670	5.17
2022-Q3	5154277	73.1	2.9	1.6	7.5	9.07	69.8	461.2	1901.4	0.78	0.03	0.19	14465	2.81
2022-Q4	5154277	73.5	3	1.4	7.5	8.87	73.8	454	1925.7	0.78	0.03	0.19	14655	2.84
2023-Q1	5271395	73.8	3	1.5	-2.5	7.53	68.7	451	1954.7	0.79	0.03	0.18	8885	1.69
2023-Q2	5271395	74	3	1.2	-2.5	5.5	66.6	438.9	1994.8	0.8	0.03	0.18	7700	1.46
2023-Q3	5271395	73.9	3.1	1.2	-2.5	4.83	79	440.9	1986.5	0.79	0.03	0.18	8550	1.62
2023-Q4	5271395	74.3	3.1	1.2	-2.5	3.1	77.3	437	2009.7	0.8	0.03	0.17	7720	1.46
2024-Q1	5351681	74.1	3	1.2	2.6	2.23	70.8	449.5	1995.9	0.79	0.03	0.18	3120	0.58
2024-Q2	5351681	74.3	3.2	1.2	2.6	1.7	70	455	2030.1	0.79	0.03	0.18	2310	0.43
2024-Q3	5351681	75	3	1.2	2.6	0.87	77.2	466.9	2053.2	0.79	0.03	0.18	2435	0.45
2024-Q4	5351681	74.4	3.1	1.2	2.6	0.53	69.8	448.2	2050.4	0.8	0.03	0.17	2575	0.48
2025-Q1	5440278	74.8	3.2	1.3	12.3	1.63	70.6	442.4	2074.2	0.8	0.03	0.17	2040	0.37
2025-Q2	5440278	74.6	3.4	1.3	12.3	1.67	70.3	485.5	2060.4	0.79	0.03	0.19	1830	0.34
2025-Q3	5440278	74.4	3.5	1.3	12.3	2.07	70.3	477.2	2079.5	0.79	0.03	0.18	3795	0.7
2025-Q4	5440278	74.6	3.3	1.3	12.3	2.87	71.5	497.6	2064	0.78	0.03	0.19	3700	0.68

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.15: Main data for Italy

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	59937769	58.2	6.2	1.3	0.8	0.87	738.6	5789.3	15457.7	0.7	0.03	0.26	—	3.9038
2018-Q2	59937769	58.7	6.2	1.2	0.8	1	825.5	5909.7	15771.5	0.7	0.04	0.26	—	3.9038
2018-Q3	59937769	58.6	5.7	1.3	0.8	1.67	815.6	5925.7	15659.5	0.7	0.04	0.26	—	3.9038
2018-Q4	59937769	58.5	6	1.4	0.8	1.5	811.9	5939.3	15521.9	0.7	0.04	0.27	—	3.9038
2019-Q1	59816673	58.8	6	1.4	0.4	1.03	778.6	5856.8	15490.8	0.7	0.04	0.26	—	3.8554
2019-Q2	59816673	59.1	5.7	1.3	0.4	0.93	808.9	5904.6	15860.2	0.7	0.04	0.26	—	3.8554
2019-Q3	59816673	59.1	5.6	1.4	0.4	0.33	850	5855.9	15812.3	0.7	0.04	0.26	—	3.8554
2019-Q4	59816673	59.2	5.5	1.4	0.4	0.3	890.5	5909.7	15610.2	0.7	0.04	0.26	—	3.8554
2020-Q1	59641488	58.9	5	0.6	-8.9	0.23	804.9	5860.4	15447	0.7	0.04	0.27	—	3.747
2020-Q2	59641488	56.3	4.2	0.9	-8.9	-0.2	786.3	5897.4	15059.7	0.69	0.04	0.27	—	3.747
2020-Q3	59641488	57.1	6	1	-8.9	-0.23	863.3	5843.4	15120.4	0.69	0.04	0.27	—	3.747
2020-Q4	59641488	57.5	5.4	1	-8.9	-0.4	896.9	5880.6	15068.7	0.69	0.04	0.27	—	3.747
2021-Q1	59236213	56.7	5.5	1.4	8.9	0.77	791.5	5675.5	14568.1	0.69	0.04	0.27	—	3.8889
2021-Q2	59236213	57.9	5.4	1.8	8.9	1.17	864.2	5881.8	15069.5	0.69	0.04	0.27	—	3.8889
2021-Q3	59236213	58.9	5.3	2.1	8.9	2.13	872.7	5944.8	15329.9	0.69	0.04	0.27	—	3.8889
2021-Q4	59236213	59.4	5.1	2	8.9	3.77	816.6	6035.8	15326.1	0.69	0.04	0.27	—	3.8889
2022-Q1	59030133	59.7	4.6	2.1	4.8	6.03	753.9	5958.6	15307.2	0.7	0.03	0.27	0	0
2022-Q2	59030133	60.2	4.6	2.2	4.8	7.37	845.4	6159.3	15484.3	0.69	0.04	0.27	81095	1.37
2022-Q3	59030133	60.1	4.7	2.2	4.8	8.97	836.6	6123.7	15428.7	0.69	0.04	0.27	49075	0.83
2022-Q4	59030133	60.7	4.5	2.3	4.8	12.5	809.7	6092	15638.8	0.69	0.04	0.27	19125	0.32
2023-Q1	58997201	61.1	4.5	2.3	0.9	9.53	735.8	6133.4	15617.9	0.69	0.03	0.27	7965	0.14
2023-Q2	58997201	61.3	4.4	2.3	0.9	7.77	801.6	6176.6	15851	0.69	0.04	0.27	7170	0.12
2023-Q3	58997201	61.4	4.5	2.3	0.9	5.8	801.1	6161.8	15828.4	0.69	0.04	0.27	5150	0.09
2023-Q4	58997201	62.1	4.4	2.3	0.9	0.97	792.3	6164.5	16032.4	0.7	0.03	0.27	990	0.02
2024-Q1	58971230	62	4.2	2.2	0.8	0.97	714.5	6229	15873.3	0.7	0.03	0.27	6525	0.11
2024-Q2	58971230	62	3.9	2.1	0.8	0.87	762.5	6214	16156.4	0.7	0.03	0.27	4360	0.07
2024-Q3	58971230	62.4	3.6	2	0.8	1.17	779	6217.5	16258	0.7	0.03	0.27	4890	0.08
2024-Q4	58971230	62.3	3.5	2	0.8	1.3	797.2	6319.8	16028.4	0.69	0.03	0.27	1050	0.02
2025-Q1	58943464	62.9	3.7	1.9	0.5	1.83	709.2	6316.5	16170.5	0.7	0.03	0.27	2145	0.04
2025-Q2	58943464	62.4	3.8	1.7	0.5	1.83	761.4	6335.2	16181.2	0.7	0.03	0.27	4145	0.07
2025-Q3	58943464	62.4	3.6	1.8	0.5	1.7	793.9	6228	16149.7	0.7	0.03	0.27	3595	0.06
2025-Q4	58943464	62.4	3.2	1.9	0.5	1.2	819.2	6218.8	16073	0.7	0.04	0.27	3925	0.07

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.16: Main data for Latvia

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	1934379	71.5	5.5	2.4	4.3	2.03	51.9	193.5	560.3	0.7	0.06	0.24	–	4.1295
2018-Q2	1934379	71.5	5.3	2.6	4.3	2.4	54.2	187.1	576.9	0.71	0.07	0.23	–	4.1295
2018-Q3	1934379	72.2	5	2.5	4.3	2.93	70.9	191.1	570.9	0.69	0.09	0.23	–	4.1295
2018-Q4	1934379	71.7	4.9	2.5	4.3	2.87	60.2	174.2	586.5	0.71	0.07	0.21	–	4.1295
2019-Q1	1919968	72	4.7	3	0.7	2.8	57.3	161.1	567.9	0.72	0.07	0.2	–	4.6532
2019-Q2	1919968	71.9	4.4	3	0.7	3.3	61.9	169	550.2	0.7	0.08	0.22	–	4.6532
2019-Q3	1919968	72.4	4.3	3.1	0.7	2.8	65.6	178.1	557.7	0.7	0.08	0.22	–	4.6532
2019-Q4	1919968	72.5	4.2	3.2	0.7	2.1	64.8	182	564.6	0.7	0.08	0.22	–	4.6532
2020-Q1	1907675	72.1	5.2	2	-3.5	1.97	65.9	165.3	547.8	0.7	0.08	0.21	–	4.5291
2020-Q2	1907675	71.4	5.9	2.2	-3.5	-0.7	69.8	161.8	529.1	0.7	0.09	0.21	–	4.5291
2020-Q3	1907675	71	6	2.3	-3.5	-0.27	51.5	172.1	544	0.71	0.07	0.22	–	4.5291
2020-Q4	1907675	71.4	5.6	2.2	-3.5	-0.63	52.7	170	540.5	0.71	0.07	0.22	–	4.5291
2021-Q1	1893223	69.4	5.3	2.3	6.9	-0.13	55.7	151.1	528.8	0.72	0.08	0.21	–	4.7998
2021-Q2	1893223	69.5	5.3	2.6	6.9	2.33	55.4	163	534.9	0.71	0.07	0.22	–	4.7998
2021-Q3	1893223	70.4	5	2.6	6.9	3.7	51.3	169	534	0.71	0.07	0.22	–	4.7998
2021-Q4	1893223	70.3	4.9	3.3	6.9	7.1	49.4	165.2	529	0.71	0.07	0.22	–	4.7998
2022-Q1	1875757	71.1	4.8	3.1	1.9	9.27	52.7	172.1	551	0.71	0.07	0.22	11085	5.91
2022-Q2	1875757	71.3	4.5	2.8	1.9	16.37	59	186.1	560	0.7	0.07	0.23	16675	8.89
2022-Q3	1875757	71.4	4.8	2.8	1.9	21.57	61.3	184.7	557.3	0.69	0.08	0.23	6015	3.21
2022-Q4	1875757	71.4	4.6	2.7	1.9	21.37	51.9	182	568.9	0.71	0.06	0.23	4015	2.14
2023-Q1	1895239	71.4	4.2	2.6	-0.9	19.57	52.3	177.8	556.7	0.71	0.07	0.23	2785	1.47
2023-Q2	1895239	71.6	4.4	2.7	-0.9	11.8	55.7	178.4	564.1	0.71	0.07	0.22	6285	3.32
2023-Q3	1895239	71.5	4.5	2.8	-0.9	5.27	56.2	177.3	564.4	0.71	0.07	0.22	1770	0.93
2023-Q4	1895239	71.2	4.8	2.7	-0.9	1.43	51.3	158.4	562.6	0.73	0.07	0.21	1175	0.62
2024-Q1	1878575	71.7	4.9	2.7	0	0.9	54.5	167.2	564.4	0.72	0.07	0.21	1085	0.58
2024-Q2	1878575	71.4	4.8	2.6	0	0.87	62.2	171.3	557.6	0.7	0.08	0.22	1530	0.81
2024-Q3	1878575	71	4.7	2.5	0	1.1	58.5	157.9	568.5	0.72	0.07	0.2	1810	0.96
2024-Q4	1878575	70.5	4.8	2.5	0	2.6	48.4	166.1	564.9	0.72	0.06	0.21	1700	0.9
2025-Q1	1860565	71	5	2.4	2.1	3.43	50.8	148.8	573.7	0.74	0.07	0.19	1590	0.85
2025-Q2	1860565	72.3	4.6	2.2	2.1	3.87	63.3	163.9	569.2	0.71	0.08	0.21	1570	0.84
2025-Q3	1860565	72.1	4.9	2.2	2.1	4.1	58.3	172.7	563.1	0.71	0.07	0.22	2230	1.2
2025-Q4	1860565	72.4	4.8	2.2	2.1	3.83	51.4	162.5	568.9	0.73	0.07	0.21	1710	0.92

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.17: Main data for Lithuania

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	2826200	71.1	4.6	1.5	4.9	3.1	94.7	309.5	843.9	0.68	0.08	0.25	—	5.9953
2018-Q2	2826200	72.1	4.1	1.5	4.9	2.57	93.9	316.5	854.9	0.68	0.07	0.25	—	5.9953
2018-Q3	2826200	73.7	4.1	1.4	4.9	2.17	84.8	327.3	878.1	0.68	0.07	0.25	—	5.9953
2018-Q4	2826200	72.9	4.2	1.4	4.9	2.33	93.4	330.4	849.3	0.67	0.07	0.26	—	5.9953
2019-Q1	2812200	72.8	4.4	1.4	4.7	2.07	92.3	325.3	846.8	0.67	0.07	0.26	—	9.0662
2019-Q2	2812200	73	4.3	1.4	4.7	2.53	86.4	313.1	860.5	0.68	0.07	0.25	—	9.0662
2019-Q3	2812200	73.1	4.3	1.4	4.7	2.33	80.4	315.3	881	0.69	0.06	0.25	—	9.0662
2019-Q4	2812200	73.2	4.6	1.5	4.7	1.97	70.5	335.5	864.5	0.68	0.06	0.26	—	9.0662
2020-Q1	2809977	72.9	5.1	1.1	0	2.5	70.6	343.6	858.3	0.67	0.06	0.27	—	11.1745
2020-Q2	2809977	71.5	5.9	1.3	0	0.67	72.9	306.6	854.1	0.69	0.06	0.25	—	11.1745
2020-Q3	2809977	70.7	6.5	1.4	0	0.9	69.2	303.8	846.7	0.69	0.06	0.25	—	11.1745
2020-Q4	2809977	71.5	6.3	1.4	0	0.27	71.5	300.3	864.8	0.7	0.06	0.24	—	11.1745
2021-Q1	2810761	71.4	5.3	1.6	6.4	0.73	69.4	329.3	848.4	0.68	0.06	0.26	—	11.6993
2021-Q2	2810761	71.8	5.3	1.8	6.4	3.13	68.2	334.5	850.5	0.68	0.05	0.27	—	11.6993
2021-Q3	2810761	72.9	4.7	2	6.4	5.23	67	328.4	873.2	0.69	0.05	0.26	—	11.6993
2021-Q4	2810761	73.4	4.6	2	6.4	9.4	61.9	323.8	880.8	0.7	0.05	0.26	—	11.6993
2022-Q1	2805998	72.9	4.5	1.9	2.5	13.97	67.9	320.5	888.5	0.7	0.05	0.25	3155	1.12
2022-Q2	2805998	74.3	3.9	1.9	2.5	18.53	82.4	338.1	902.8	0.68	0.06	0.26	45810	16.33
2022-Q3	2805998	74.7	4.3	1.9	2.5	21.5	75.8	342.6	916.4	0.69	0.06	0.26	10540	3.76
2022-Q4	2805998	72.9	4.3	1.8	2.5	21.17	60.1	343.1	904	0.69	0.05	0.26	5610	2
2023-Q1	2857279	72	5.3	1.9	0.7	16.97	55.6	329.2	900.6	0.7	0.04	0.26	3150	1.1
2023-Q2	2857279	73.8	4.4	2	0.7	10.73	71	343.3	912.8	0.69	0.05	0.26	4115	1.44
2023-Q3	2857279	73.9	4.6	2	0.7	5.9	75.6	356.4	906.7	0.68	0.06	0.27	2510	0.88
2023-Q4	2857279	73	5.2	2	0.7	2.33	66.2	327.8	919.2	0.7	0.05	0.25	2390	0.84
2024-Q1	2885891	72.7	5.5	2	3	0.87	54.7	323.8	932.3	0.71	0.04	0.25	2050	0.71
2024-Q2	2885891	74.1	5.1	2	3	0.77	59.8	360.5	923.7	0.69	0.04	0.27	3000	1.04
2024-Q3	2885891	73.8	5.1	2	3	0.77	72.1	365.2	906.6	0.67	0.05	0.27	3260	1.13
2024-Q4	2885891	73.9	4.5	2	3	1.03	69	345.2	929.5	0.69	0.05	0.26	2630	0.91
2025-Q1	2890664	73.8	4.7	2.2	2.9	3.43	57.8	312.9	951.4	0.72	0.04	0.24	3175	1.1
2025-Q2	2890664	73.9	5.2	2.2	2.9	3.27	61.6	339.2	941.1	0.7	0.05	0.25	2980	1.03
2025-Q3	2890664	74.7	4.9	2.2	2.9	3.57	72.7	351.4	944.9	0.69	0.05	0.26	2945	1.02
2025-Q4	2890664	73.8	4.7	2.3	2.9	3.5	65.5	328.8	946.1	0.71	0.05	0.25	3255	1.13

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.18: Main data for Luxembourg

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	602005	66.7	3.6	1.5	1.6	1.17	2.6	17.8	198.7	0.91	0.01	0.08	–	1.5565
2018-Q2	602005	65.8	3.5	1.7	1.6	1.93	2.2	21.7	196.9	0.89	0.01	0.1	–	1.5565
2018-Q3	602005	67.3	3.8	1.7	1.6	2.53	2.4	13.6	206.4	0.93	0.01	0.06	–	1.5565
2018-Q4	602005	68.5	3.5	1.8	1.6	2.43	2.9	18.2	206.8	0.91	0.01	0.08	–	1.5565
2019-Q1	613894	67.1	3.6	1.7	2.7	2.03	0	21.1	219	0.91	0	0.09	–	1.6469
2019-Q2	613894	68	3.5	1.6	2.7	1.97	0	17.1	224.3	0.93	0	0.07	–	1.6469
2019-Q3	613894	68.3	3.8	1.6	2.7	1.37	0	15.6	219.9	0.93	0	0.07	–	1.6469
2019-Q4	613894	68.3	3.8	1.7	2.7	1.2	2.1	15.2	216.8	0.93	0.01	0.06	–	1.6469
2020-Q1	626108	66.2	4.1	1.7	-0.5	1.53	0	16.3	218.6	0.93	0	0.07	–	1.7106
2020-Q2	626108	66.6	4.2	1.3	-0.5	-0.93	2.1	13.2	226.4	0.94	0.01	0.05	–	1.7106
2020-Q3	626108	67.3	5.1	1.5	-0.5	-0.13	2.1	14.3	224	0.93	0.01	0.06	–	1.7106
2020-Q4	626108	68.9	4.4	1.6	-0.5	-0.47	0	13.8	232.2	0.94	0	0.06	–	1.7106
2021-Q1	634730	67.7	3.7	1.6	6.9	1.03	2.8	11.8	235.1	0.94	0.01	0.05	–	1.5707
2021-Q2	634730	69.4	3.8	1.8	6.9	3.57	3.3	16	241.6	0.93	0.01	0.06	–	1.5707
2021-Q3	634730	70.5	3.6	2	6.9	3.6	2.9	16.5	240.6	0.93	0.01	0.06	–	1.5707
2021-Q4	634730	69.8	2.9	2.3	6.9	5.67	2.3	19	242.5	0.92	0.01	0.07	–	1.5707
2022-Q1	645397	70.1	2.8	2.4	-1.1	6.77	3.2	14.9	242.6	0.93	0.01	0.06	920	1.43
2022-Q2	645397	70	3	2.6	-1.1	9.47	3.2	18.1	250.6	0.92	0.01	0.07	3120	4.83
2022-Q3	645397	70.4	3.3	2.6	-1.1	8.9	2.3	14.2	253.5	0.94	0.01	0.05	480	0.74
2022-Q4	645397	70	3.1	2.5	-1.1	7.43	2.8	12.6	251	0.94	0.01	0.05	395	0.61
2023-Q1	660809	70.1	3.4	2.2	0.1	4.5	2.9	16.8	256.3	0.93	0.01	0.06	300	0.45
2023-Q2	660809	70.6	3.4	1.9	0.1	1.9	2.6	18	251.9	0.92	0.01	0.07	145	0.22
2023-Q3	660809	70.9	3.6	1.8	0.1	2.97	2	15.5	258.3	0.94	0.01	0.06	235	0.36
2023-Q4	660809	69.5	3.6	1.6	0.1	2.47	0	14.9	257.1	0.95	0	0.05	175	0.26
2024-Q1	672050	69.4	3.8	1.5	0.4	3.13	2.7	13.2	262.1	0.94	0.01	0.05	165	0.25
2024-Q2	672050	69.8	4.3	1.4	0.4	3	2.7	12.9	265.8	0.94	0.01	0.05	155	0.23
2024-Q3	672050	69.5	4.6	1.4	0.4	1.73	2.6	11.5	260.3	0.95	0.01	0.04	220	0.33
2024-Q4	672050	70.1	4.6	1.3	0.4	1.2	0	14.2	268	0.95	0	0.05	180	0.27
2025-Q1	681973	69.8	4.3	1.3	0.6	1.93	2.7	16.3	258.7	0.93	0.01	0.06	215	0.32
2025-Q2	681973	69.8	4.4	1.4	0.6	2.07	2.8	14.1	257.8	0.94	0.01	0.05	170	0.25
2025-Q3	681973	69.9	4.1	1.3	0.6	2.83	3.3	12.9	251.9	0.94	0.01	0.05	265	0.39
2025-Q4	681973	68.4	4.8	1.4	0.6	3.3	2.3	16.2	255.4	0.93	0.01	0.06	255	0.37

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.19: Main data for Malta

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	474837	69.7	2.7	2.6	7.2	1.27	0	29.4	161.5	0.85	0	0.15	–	2.2029
2018-Q2	474837	70.9	2.5	2.6	7.2	1.7	1.7	30.1	168.1	0.84	0.01	0.15	–	2.2029
2018-Q3	474837	72	2.4	2.7	7.2	2.33	1.7	31.9	174.8	0.84	0.01	0.15	–	2.2029
2018-Q4	474837	71.6	2.5	2.8	7.2	1.57	0	33.3	175.7	0.84	0	0.16	–	2.2029
2019-Q1	492968	71.4	2.8	2.5	4.1	1.2	0	35.2	175.5	0.83	0	0.17	–	2.3815
2019-Q2	492968	72.1	2.5	2.8	4.1	1.73	2.4	38.2	176.3	0.81	0.01	0.18	–	2.3815
2019-Q3	492968	71.7	2.7	2.4	4.1	1.77	1.6	41	183.2	0.81	0.01	0.18	–	2.3815
2019-Q4	492968	71.8	2.7	2.2	4.1	1.33	0	34.7	184.6	0.84	0	0.16	–	2.3815
2020-Q1	514855	73.1	2.7	1.4	-3.5	1.23	0	30.5	190.6	0.86	0	0.14	–	2.1132
2020-Q2	514855	72.2	3.2	1.5	-3.5	1	2.1	31.2	185.7	0.85	0.01	0.14	–	2.1132
2020-Q3	514855	72.2	3.7	1.9	-3.5	0.63	0	36.5	186	0.84	0	0.16	–	2.1132
2020-Q4	514855	71.9	3.4	1.7	-3.5	0.33	2.5	38.7	177.8	0.81	0.01	0.18	–	2.1132
2021-Q1	516125	73	2.8	1.4	13.4	0.13	0	36	187.3	0.84	0	0.16	–	2.3095
2021-Q2	516125	73.7	2.5	2.4	13.4	0.17	0	37.4	193.2	0.84	0	0.16	–	2.3095
2021-Q3	516125	74.3	2.5	2.6	13.4	0.47	0	32.4	195.8	0.86	0	0.14	–	2.3095
2021-Q4	516125	75.6	2.3	2.3	13.4	2.13	0	36.3	196.6	0.84	0	0.16	–	2.3095
2022-Q1	520174	75.7	2.5	2.5	2.6	4.27	0	37.2	203.2	0.85	0	0.15	190	0.37
2022-Q2	520174	76.2	2.6	2.8	2.6	5.77	0	40.7	204.2	0.83	0	0.17	995	1.91
2022-Q3	520174	76.4	2.4	2.8	2.6	7.07	0	34.4	212.5	0.86	0	0.14	260	0.5
2022-Q4	520174	77.7	2.3	2.5	2.6	7.3	0	35	222	0.86	0	0.14	170	0.33
2023-Q1	542051	77.4	2.4	2.6	10.6	6.97	1.8	38.9	218.6	0.84	0.01	0.15	205	0.38
2023-Q2	542051	77.2	2.7	2.7	10.6	6.3	2.8	42.4	216.4	0.83	0.01	0.16	135	0.25
2023-Q3	542051	78.3	2.7	3	10.6	5.17	2.8	40	226.2	0.84	0.01	0.15	130	0.24
2023-Q4	542051	78.3	2.3	2.8	10.6	3.93	1.9	42.1	231.8	0.84	0.01	0.15	95	0.18
2024-Q1	563443	78.8	2.5	3.2	6.2	3.13	0	47.4	232.9	0.83	0	0.17	80	0.14
2024-Q2	563443	78.9	2.3	3	6.2	2.3	2.1	46.1	233.6	0.83	0.01	0.16	85	0.15
2024-Q3	563443	79.5	2.3	3.1	6.2	2.27	1.9	38.4	241.4	0.86	0.01	0.14	110	0.2
2024-Q4	563443	79.5	2.3	2.9	6.2	2.1	0	39.2	245.3	0.86	0	0.14	85	0.15
2025-Q1	574250	79.8	2.3	2.9	4	1.97	0	47.3	242.1	0.84	0	0.16	80	0.14
2025-Q2	574250	80	2.1	3.2	4	2.6	0	49	240.9	0.83	0	0.17	80	0.14
2025-Q3	574250	80.5	2.1	3.4	4	2.53	0	43.4	247.1	0.85	0	0.15	100	0.17
2025-Q4	574250	79.8	2.5	3.3	4	2.47	0	43.4	244.5	0.85	0	0.15	95	0.17

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.20: Main data for Netherlands

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	17181084	78.1	3.7	2.8	2.3	1.27	147.6	1256.8	6215.9	0.82	0.02	0.16	—	0.3685
2018-Q2	17181084	78.5	3.6	3	2.3	1.53	149.8	1254.7	6302.7	0.82	0.02	0.16	—	0.3685
2018-Q3	17181084	78.9	3.5	3.1	2.3	1.8	155.5	1256	6326	0.82	0.02	0.16	—	0.3685
2018-Q4	17181084	79.3	3.4	3.1	2.3	1.83	148.7	1266.9	6363.3	0.82	0.02	0.16	—	0.3685
2019-Q1	17282163	79.5	3.4	3.2	2.3	2.5	153.7	1257	6353.4	0.82	0.02	0.16	—	0.4207
2019-Q2	17282163	79.7	3.2	3.2	2.3	2.67	153.8	1265.9	6380.7	0.82	0.02	0.16	—	0.4207
2019-Q3	17282163	79.8	3.2	3.3	2.3	2.8	160.1	1267.1	6393.6	0.82	0.02	0.16	—	0.4207
2019-Q4	17282163	79.8	3.2	3.3	2.3	2.73	149.1	1280.4	6410.6	0.82	0.02	0.16	—	0.4207
2020-Q1	17407585	80	3.1	2.5	-3.9	1.37	154.2	1271	6410.2	0.82	0.02	0.16	—	0.4303
2020-Q2	17407585	78.8	3.5	2.4	-3.9	1.27	151.6	1241.9	6324.4	0.82	0.02	0.16	—	0.4303
2020-Q3	17407585	79.1	3.9	2.5	-3.9	0.97	153.3	1239.5	6322.1	0.82	0.02	0.16	—	0.4303
2020-Q4	17407585	79.3	3.7	2.6	-3.9	0.93	144.4	1233	6385.6	0.82	0.02	0.16	—	0.4303
2021-Q1	17475415	79.3	3.5	2.9	6.3	1.8	210.1	1211.8	7222.9	0.84	0.02	0.14	—	0.4714
2021-Q2	17475415	79.7	3.2	3.7	6.3	1.8	180.1	1205.5	7314.4	0.84	0.02	0.14	—	0.4714
2021-Q3	17475415	80.6	2.9	4.1	6.3	2.37	174	1241.8	7384.4	0.84	0.02	0.14	—	0.4714
2021-Q4	17475415	80.9	2.8	4.4	6.3	5.33	174.2	1217	7466.8	0.84	0.02	0.14	—	0.4714
2022-Q1	17590672	81.3	2.7	4.9	5	8.87	164.6	1224.2	7487.8	0.84	0.02	0.14	24445	1.39
2022-Q2	17590672	81.8	2.6	5	5	10.43	162.5	1254.5	7566.3	0.84	0.02	0.14	46365	2.64
2022-Q3	17590672	81.9	2.7	4.8	5	14.13	152.3	1278.8	7600.2	0.84	0.02	0.14	18680	1.06
2022-Q4	17590672	82	2.7	4.7	5	13.03	153.4	1271.3	7664.2	0.84	0.02	0.14	11660	0.66
2023-Q1	17811291	82.3	2.7	4.6	-0.6	7.27	161.9	1289	7655.5	0.84	0.02	0.14	8630	0.48
2023-Q2	17811291	82.4	2.7	4.5	-0.6	6.33	153.8	1281.6	7711.3	0.84	0.02	0.14	6705	0.38
2023-Q3	17811291	82.6	2.7	4.5	-0.6	2.8	164.3	1284.3	7732.1	0.84	0.02	0.14	8850	0.5
2023-Q4	17811291	82.4	2.7	4.4	-0.6	0.47	158.2	1289.1	7772	0.84	0.02	0.14	8660	0.49
2024-Q1	17942942	82.3	2.8	4.4	1.1	2.97	152.6	1298.8	7699.9	0.84	0.02	0.14	6200	0.35
2024-Q2	17942942	82.4	2.8	4.3	1.1	2.9	156.2	1285.1	7737.1	0.84	0.02	0.14	6540	0.36
2024-Q3	17942942	82.4	2.8	4.3	1.1	3.37	148.6	1291.1	7745.9	0.84	0.02	0.14	8210	0.46
2024-Q4	17942942	82.2	2.8	4.3	1.1	3.67	146.7	1270.5	7778.3	0.85	0.02	0.14	6925	0.39
2025-Q1	18044027	82.2	2.9	4.2	1.8	3.3	132.7	1292.5	7735.1	0.84	0.01	0.14	6245	0.35
2025-Q2	18044027	82.3	2.9	4.1	1.8	3.23	137.9	1276	7791.8	0.85	0.01	0.14	6275	0.35
2025-Q3	18044027	82.4	3	4.1	1.8	2.63	144.7	1299.6	7748.2	0.84	0.02	0.14	7755	0.43
2025-Q4	18044027	82.3	3	4	1.8	2.77	139.2	1286.6	7779.1	0.85	0.02	0.14	7350	0.41

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.21: Main data for Norway

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	5295619	75.4	2.9	2.3	1.1	2.03	44.6	461.6	1992.8	0.8	0.02	0.18	—	0.5994
2018-Q2	5295619	75.7	2.7	2.4	1.1	2.53	49.3	464.6	2014.9	0.8	0.02	0.18	—	0.5994
2018-Q3	5295619	75.7	3	2.5	1.1	3.73	48.7	474.8	2014.5	0.79	0.02	0.19	—	0.5994
2018-Q4	5295619	75.9	2.8	2.3	1.1	3.77	44.6	472.4	2018.1	0.8	0.02	0.19	—	0.5994
2019-Q1	5328212	75.8	2.8	2.4	1.5	3.4	43.8	466.2	2011.8	0.8	0.02	0.18	—	0.6248
2019-Q2	5328212	75.9	2.4	2.6	1.5	2.7	47.2	467.4	2033.1	0.8	0.02	0.18	—	0.6248
2019-Q3	5328212	76.7	2.8	2.4	1.5	1.6	46.8	478.1	2056	0.8	0.02	0.19	—	0.6248
2019-Q4	5328212	76.3	3	2.4	1.5	1.47	46.1	471.9	2041.3	0.8	0.02	0.18	—	0.6248
2020-Q1	5367580	76.5	2.7	2.3	-1.4	0.97	49.2	461.3	2045.9	0.8	0.02	0.18	—	0.6088
2020-Q2	5367580	75.1	3.2	1.9	-1.4	1	48.4	457	2021.3	0.8	0.02	0.18	—	0.6088
2020-Q3	5367580	75.2	3.9	2.3	-1.4	1.47	50.5	465.3	2009.7	0.8	0.02	0.18	—	0.6088
2020-Q4	5367580	75.6	3.7	2.3	-1.4	1.17	44.3	472.6	2011.5	0.8	0.02	0.19	—	0.6088
2021-Q1	5391369	74.8	3.4	2.4	4.1	3.23	51.8	457.7	2007.5	0.8	0.02	0.18	—	0.5815
2021-Q2	5391369	76.2	3.6	3.2	4.1	3	56.1	459.4	2061.9	0.8	0.02	0.18	—	0.5815
2021-Q3	5391369	76.9	3	3.2	4.1	3.97	65.3	483.8	2072.9	0.79	0.02	0.18	—	0.5815
2021-Q4	5391369	77.2	2.7	3.2	4.1	5.3	54.8	490.8	2073.5	0.79	0.02	0.19	—	0.5815
2022-Q1	5425270	77.7	2.4	3.2	4.1	3.77	50.5	493.9	2084	0.79	0.02	0.19	2230	0.41
2022-Q2	5425270	78.1	2.3	3.5	4.1	6.37	56.1	494.1	2117.8	0.79	0.02	0.19	15155	2.79
2022-Q3	5425270	77.7	2.3	3.3	4.1	7.37	57.9	486.1	2125.6	0.8	0.02	0.18	8725	1.61
2022-Q4	5425270	77.4	2.4	3.9	4.1	7.33	58.4	492.5	2104.4	0.79	0.02	0.19	7115	1.31
2023-Q1	5488984	77.2	2.7	3.9	0.4	7.5	62.2	491.8	2096.1	0.79	0.02	0.19	7940	1.45
2023-Q2	5488984	77.6	2.5	3.7	0.4	6.97	67.7	483.2	2129.4	0.79	0.03	0.18	5655	1.03
2023-Q3	5488984	77.7	2.6	3.7	0.4	4.43	66.8	491.8	2149.6	0.79	0.02	0.18	9200	1.68
2023-Q4	5488984	77.1	2.8	3.5	0.4	4.3	67.7	475.1	2142.8	0.8	0.03	0.18	10440	1.9
2024-Q1	5550203	77	2.9	3.5	1.4	4.2	65.6	464.9	2131.8	0.8	0.02	0.17	6275	1.13
2024-Q2	5550203	77.2	3	3.2	1.4	2.8	68.9	464.1	2154	0.8	0.03	0.17	3445	0.62
2024-Q3	5550203	77.1	2.8	3.2	1.4	2.47	65.6	463.2	2177.1	0.8	0.02	0.17	5525	1
2024-Q4	5550203	76.9	3	2.9	1.4	1.93	62.6	453.7	2163.6	0.81	0.02	0.17	4500	0.81
2025-Q1	5594340	76.7	2.9	3	1.1	2.5	59.6	454.9	2168	0.81	0.02	0.17	2960	0.53
2025-Q2	5594340	76.6	3.5	2.8	1.1	2.5	60.6	452.3	2186.5	0.81	0.02	0.17	1725	0.31
2025-Q3	5594340	76.6	3.4	2.8	1.1	3.4	62.4	461.4	2180.9	0.81	0.02	0.17	2805	0.5
2025-Q4	5594340	76.5	3.3	2.7	1.1	2.9	62	460.3	2163.4	0.81	0.02	0.17	5390	0.96

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.22: Main data for Poland

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	37976687	66.2	2.5	1.1	6.2	1	1467.2	5123.3	9292.6	0.59	0.09	0.32	–	10.8954
2018-Q2	37976687	66.9	2.3	1.2	6.2	1.17	1540.4	5106.3	9460.7	0.59	0.1	0.32	–	10.8954
2018-Q3	37976687	66.9	2.4	1.2	6.2	1.43	1558.3	5153.6	9424.4	0.58	0.1	0.32	–	10.8954
2018-Q4	37976687	66.5	2.3	1.2	6.2	1.17	1500.7	5203	9212.3	0.58	0.09	0.33	–	10.8954
2019-Q1	37972812	67.2	2.2	1.1	4.6	1.2	1414.6	5271.3	9484.6	0.59	0.09	0.33	–	12.5407
2019-Q2	37972812	68	2	1.1	4.6	2.2	1427.5	5280	9729.2	0.59	0.09	0.32	–	12.5407
2019-Q3	37972812	68.1	1.9	1.1	4.6	2.5	1481.3	5329.1	9753.2	0.59	0.09	0.32	–	12.5407
2019-Q4	37972812	67.9	1.8	1.1	4.6	2.57	1467.9	5330.5	9667.4	0.59	0.09	0.32	–	12.5407
2020-Q1	37958138	68.1	1.8	0.6	-2	3.93	1458.7	5249.4	9680.3	0.59	0.09	0.32	–	13.1602
2020-Q2	37958138	67.2	1.9	0.7	-2	3.37	1508.9	5222.5	9518.6	0.59	0.09	0.32	–	13.1602
2020-Q3	37958138	68.1	2.1	0.7	-2	3.73	1522.2	5244.6	9685.3	0.59	0.09	0.32	–	13.1602
2020-Q4	37958138	68.5	2	0.8	-2	3.63	1544.7	5228.8	9707.2	0.59	0.09	0.32	–	13.1602
2021-Q1	37073357	69.5	2.4	0.9	6.9	3.87	1371.9	5194.5	9791.7	0.6	0.08	0.32	–	17.5657
2021-Q2	37073357	70.1	2.3	1.2	6.9	4.6	1314.3	5126	10057.7	0.61	0.08	0.31	–	17.5657
2021-Q3	37073357	70.9	2	1.2	6.9	5.1	1354.8	5118.8	10252.8	0.61	0.08	0.31	–	17.5657
2021-Q4	37073357	71.1	1.8	1.2	6.9	7.27	1306.7	5174.8	10197.1	0.61	0.08	0.31	–	17.5657
2022-Q1	36889761	71.3	1.8	1.2	5.3	9	1312.9	5298.3	10058.8	0.6	0.08	0.32	675085	18.3
2022-Q2	36889761	71.5	1.8	1.2	5.3	12.8	1373.3	5200.7	10117.5	0.61	0.08	0.31	581830	15.77
2022-Q3	36889761	71.2	1.8	1.1	5.3	14.9	1327.6	5070.4	10192.7	0.61	0.08	0.31	178115	4.83
2022-Q4	36889761	71.9	1.8	1	5.3	15.93	1260.7	5092.3	10376.4	0.62	0.08	0.3	126750	3.44
2023-Q1	36753736	72.4	1.7	0.9	0.2	16.1	1230.4	5074.6	10399.8	0.62	0.07	0.3	72330	1.97
2023-Q2	36753736	72.2	1.8	0.9	0.2	12.5	1313.1	4986	10386.6	0.62	0.08	0.3	51670	1.41
2023-Q3	36753736	72.3	1.8	0.9	0.2	9.17	1321	4892.3	10495.3	0.63	0.08	0.29	66175	1.8
2023-Q4	36753736	72.6	2	0.9	0.2	6.27	1178.5	5030.9	10496.7	0.63	0.07	0.3	43160	1.17
2024-Q1	36620970	72.5	1.8	0.9	3	3.63	1124.8	5016.3	10427.3	0.63	0.07	0.3	36365	0.99
2024-Q2	36620970	72.3	1.8	0.9	3	2.9	1066	5067	10396	0.63	0.06	0.31	40070	1.09
2024-Q3	36620970	72.6	1.9	0.9	3	4.07	1053.6	5101.6	10471.5	0.63	0.06	0.31	51855	1.42
2024-Q4	36620970	72.7	1.8	0.8	3	4	1012.3	5054.7	10524.2	0.63	0.06	0.3	37135	1.01
2025-Q1	36497495	72.3	2	0.8	3.6	4.33	974.2	5036.6	10434.1	0.63	0.06	0.31	28585	0.78
2025-Q2	36497495	72.7	1.9	0.8	3.6	3.53	1009.4	5118.7	10416.9	0.63	0.06	0.31	30050	0.82
2025-Q3	36497495	73	2.1	0.8	3.6	2.83	1012.6	5226.4	10411.1	0.63	0.06	0.31	55100	1.51
2025-Q4	36497495	73.1	2.1	0.8	3.6	2.67	1020.4	5063.7	10546.3	0.63	0.06	0.3	38775	1.06

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.23: Main data for Portugal

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	10335770	68.7	5	0.9	2.9	0.87	167.5	1158.5	3187.5	0.71	0.04	0.26	—	2.8269
2018-Q2	10335770	68.9	4.7	0.8	2.9	1.23	192.9	1168.1	3197.5	0.7	0.04	0.26	—	2.8269
2018-Q3	10335770	69.1	4.6	0.9	2.9	1.77	175.8	1164.7	3253.9	0.71	0.04	0.25	—	2.8269
2018-Q4	10335770	69.3	4.3	0.9	2.9	0.77	155.6	1171	3234.6	0.71	0.03	0.26	—	2.8269
2019-Q1	10333496	69.7	4.3	1	2.7	0.77	161.8	1155	3242.1	0.71	0.04	0.25	—	2.8759
2019-Q2	10333496	69.7	4.4	0.9	2.7	0.63	160	1158.3	3272.4	0.71	0.03	0.25	—	2.8759
2019-Q3	10333496	69.9	4.2	1	2.7	-0.37	164.5	1166.9	3303.5	0.71	0.04	0.25	—	2.8759
2019-Q4	10333496	69.8	4.4	1	2.7	0.17	149.5	1160.9	3288.7	0.72	0.03	0.25	—	2.8759
2020-Q1	10375395	69.8	4.4	0.6	-8.2	0.47	149.3	1148.6	3255.8	0.71	0.03	0.25	—	2.7593
2020-Q2	10375395	67	3.7	0.7	-8.2	-0.17	154.3	1129.2	3133.4	0.71	0.03	0.26	—	2.7593
2020-Q3	10375395	67.6	5.3	0.7	-8.2	-0.37	146.2	1165.3	3146.7	0.71	0.03	0.26	—	2.7593
2020-Q4	10375395	68.8	4.7	0.7	-8.2	-0.43	136.6	1185.6	3186.7	0.71	0.03	0.26	—	2.7593
2021-Q1	10394297	68.5	4.5	0.8	5.6	0.2	106.4	1151.3	3179	0.72	0.02	0.26	—	2.6163
2021-Q2	10394297	69.6	4.7	1	5.6	-0.07	115.2	1184.8	3262.2	0.72	0.03	0.26	—	2.6163
2021-Q3	10394297	70	4.2	1.1	5.6	1.23	121.5	1153.5	3330.3	0.72	0.03	0.25	—	2.6163
2021-Q4	10394297	70.5	4.1	1.1	5.6	2.4	123.2	1149.4	3344.9	0.72	0.03	0.25	—	2.6163
2022-Q1	10421117	71.6	3.8	1.4	7	4.43	106.9	1188.1	3358.9	0.72	0.02	0.26	23930	2.3
2022-Q2	10421117	70.9	4.1	1.4	7	8.17	126	1166.2	3378.1	0.72	0.03	0.25	13785	1.32
2022-Q3	10421117	71.5	4.1	1.6	7	9.5	120.9	1205.2	3403.5	0.72	0.03	0.25	4240	0.41
2022-Q4	10421117	71.5	4.4	1.6	7	10.2	113.4	1193.6	3401.1	0.72	0.02	0.25	3025	0.29
2023-Q1	10516621	72	4.6	1.3	3.1	8.4	122.1	1205.1	3398.3	0.72	0.03	0.26	2240	0.21
2023-Q2	10516621	72.5	4.4	1.5	3.1	5.67	133.8	1217.4	3443.8	0.72	0.03	0.25	1360	0.13
2023-Q3	10516621	72.4	4.3	1.4	3.1	4.8	133.1	1208.8	3476.9	0.72	0.03	0.25	1560	0.15
2023-Q4	10516621	72.7	4.4	1.4	3.1	2.43	126.6	1228.9	3479.8	0.72	0.03	0.25	1530	0.15
2024-Q1	10639726	72.7	4.4	1.3	2.2	2.47	129.5	1233.3	3434.9	0.72	0.03	0.26	1330	0.13
2024-Q2	10639726	72.7	4.3	1.3	2.2	3.07	124.6	1205.9	3503.2	0.72	0.03	0.25	2390	0.22
2024-Q3	10639726	72.9	4.3	1.3	2.2	2.37	123.3	1220.5	3522.6	0.72	0.03	0.25	1465	0.14
2024-Q4	10639726	73	4.5	1.3	2.2	2.8	121.4	1223	3537	0.72	0.02	0.25	1720	0.16
2025-Q1	10749635	73.5	4.3	1.5	1.9	2.37	108.5	1247.4	3569.8	0.72	0.02	0.25	950	0.09
2025-Q2	10749635	73.6	4.2	1.3	1.9	1.97	112.9	1241.1	3619.9	0.73	0.02	0.25	1900	0.18
2025-Q3	10749635	74.1	4.1	1.4	1.9	2.3	110	1232.8	3693.7	0.73	0.02	0.24	1010	0.09
2025-Q4	10749635	74.4	3.9	1.5	1.9	2.17	111.8	1209.4	3718.2	0.74	0.02	0.24	1170	0.11

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.24: Main data for Romania

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	19533481	58.6	3.1	1.2	5.4	3.73	1556.2	2533.1	4043.3	0.5	0.19	0.31	—	0.0829
2018-Q2	19533481	58.7	2.9	1.3	5.4	4.53	1770.7	2587.9	4102.4	0.48	0.21	0.31	—	0.0829
2018-Q3	19533481	59.5	2.8	1.3	5.4	4.57	1734.1	2632.8	4123.2	0.49	0.2	0.31	—	0.0829
2018-Q4	19533481	59.3	2.8	1.3	5.4	3.47	1558.7	2600.2	4087.7	0.5	0.19	0.32	—	0.0829
2019-Q1	19414458	59.7	2.7	1.2	4	3.8	1513.5	2556.6	4097	0.5	0.19	0.31	—	0.1107
2019-Q2	19414458	60.1	2.7	1.1	4	4.23	1694.4	2575.6	4193.1	0.5	0.2	0.3	—	0.1107
2019-Q3	19414458	60.4	2.7	1.1	4	3.9	1634.1	2594.5	4197.8	0.5	0.19	0.31	—	0.1107
2019-Q4	19414458	60.6	2.7	1	4	3.67	1553.1	2593.3	4196.2	0.5	0.19	0.31	—	0.1107
2020-Q1	19328838	60.8	2.8	0.9	-3.6	3.17	1474.6	2588.6	4162	0.51	0.18	0.31	—	0.1116
2020-Q2	19328838	59.3	3.7	0.7	-3.6	2.1	1583.2	2469.6	4134.2	0.5	0.19	0.3	—	0.1116
2020-Q3	19328838	60.2	3.5	0.8	-3.6	2.37	1579.3	2457.1	4193.2	0.51	0.19	0.3	—	0.1116
2020-Q4	19328838	60.7	3.4	0.8	-3.6	1.77	1484.5	2507.4	4229.1	0.51	0.18	0.3	—	0.1116
2021-Q1	19201662	61.2	3.3	0.8	5.6	2.33	824.9	2509.2	4183.8	0.56	0.11	0.33	—	0.1177
2021-Q2	19201662	62	3.1	0.8	5.6	3.13	896	2555.8	4268	0.55	0.12	0.33	—	0.1177
2021-Q3	19201662	62.2	3.1	0.9	5.6	4.33	877.4	2566.2	4191.8	0.55	0.11	0.34	—	0.1177
2021-Q4	19201662	62.3	3.2	0.9	5.6	6.63	839.4	2487.8	4295.5	0.56	0.11	0.33	—	0.1177
2022-Q1	19043098	62.8	3.3	0.9	4.2	8.23	808.5	2541.5	4285.8	0.56	0.11	0.33	1980	0.1
2022-Q2	19043098	63.1	3.2	0.9	4.2	12.37	836.7	2579	4347.6	0.56	0.11	0.33	41655	2.19
2022-Q3	19043098	63.3	3.2	0.9	4.2	13.23	861.6	2529.8	4307	0.56	0.11	0.33	26825	1.41
2022-Q4	19043098	63.1	3.2	0.9	4.2	14.07	817.1	2513.5	4331.1	0.57	0.11	0.33	30430	1.6
2023-Q1	19055228	63.1	3.2	0.9	2.3	13	832.7	2545	4162.6	0.55	0.11	0.34	23910	1.25
2023-Q2	19055228	62.6	3.1	0.8	2.3	9.77	857.9	2543.8	4150.4	0.55	0.11	0.34	10680	0.56
2023-Q3	19055228	63.3	3.1	0.8	2.3	9.13	904.9	2512.3	4181.3	0.55	0.12	0.33	7515	0.39
2023-Q4	19055228	63.3	3.2	0.7	2.3	7.4	883.9	2501.7	4169	0.55	0.12	0.33	6805	0.36
2024-Q1	19067576	64.3	3	0.7	0.9	7.03	802.3	2609.2	4412.6	0.56	0.1	0.33	6475	0.34
2024-Q2	19067576	64	3.1	0.7	0.9	5.77	821.1	2604.6	4435.1	0.56	0.1	0.33	10870	0.57
2024-Q3	19067576	63.3	3.3	0.7	0.9	5.3	875.8	2482	4263.4	0.56	0.11	0.33	11100	0.58
2024-Q4	19067576	63.5	3.3	0.7	0.9	5.3	873.4	2429.3	4256.7	0.56	0.12	0.32	8125	0.43
2025-Q1	19043151	62.8	3.4	0.6	0.7	5.2	772.9	2399.1	4365	0.58	0.1	0.32	5670	0.3
2025-Q2	19043151	62.7	3.4	0.6	0.7	5.37	770	2463.4	4377.7	0.58	0.1	0.32	5725	0.3
2025-Q3	19043151	63.4	3.4	0.6	0.7	7.9	711.4	2537.7	4371.5	0.57	0.09	0.33	7900	0.41
2025-Q4	19043151	63.1	3.5	0.6	0.7	8.53	708.1	2449.1	4340.9	0.58	0.09	0.33	7320	0.38

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.25: Main data for Slovakia

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	5443120	69	4.7	1.2	4.1	2.43	58.5	923.6	1491.2	0.6	0.02	0.37	—	4.2678
2018-Q2	5443120	69.4	4.4	1.2	4.1	2.87	55.4	916.3	1505.2	0.61	0.02	0.37	—	4.2678
2018-Q3	5443120	69.8	4.2	1.2	4.1	2.73	56.9	934.6	1521.8	0.61	0.02	0.37	—	4.2678
2018-Q4	5443120	69.9	4	1.3	4.1	2.13	58.2	922.2	1543.8	0.61	0.02	0.37	—	4.2678
2019-Q1	5450421	70.6	3.9	1.2	2.3	2.4	65.2	913.3	1537	0.61	0.03	0.36	—	6.6094
2019-Q2	5450421	70.5	3.8	1.1	2.3	2.6	70.2	919.6	1503.3	0.6	0.03	0.37	—	6.6094
2019-Q3	5450421	70.3	3.8	1	2.3	3	73	924.1	1514.5	0.6	0.03	0.37	—	6.6094
2019-Q4	5450421	70.1	3.8	1	2.3	3.1	73.6	917.8	1522.8	0.61	0.03	0.37	—	6.6094
2020-Q1	5457873	70.2	4	0.9	-2.6	2.9	68.4	916.8	1475.2	0.6	0.03	0.37	—	7.3325
2020-Q2	5457873	69.4	4.3	0.8	-2.6	2	65.9	893.1	1465.2	0.6	0.03	0.37	—	7.3325
2020-Q3	5457873	69.2	4.5	0.8	-2.6	1.53	62	906.8	1485.6	0.61	0.03	0.37	—	7.3325
2020-Q4	5457873	69	4.6	0.7	-2.6	1.6	58.1	911.1	1488	0.61	0.02	0.37	—	7.3325
2021-Q1	5459781	68.3	4.6	0.8	5.7	1.03	55.1	829.5	1384.3	0.61	0.02	0.37	—	9.9158
2021-Q2	5459781	69.4	4.6	0.9	5.7	2.07	62.3	842.7	1408.1	0.61	0.03	0.36	—	9.9158
2021-Q3	5459781	70	4.4	0.9	5.7	3.4	62.9	867.8	1420.1	0.6	0.03	0.37	—	9.9158
2021-Q4	5459781	70.2	4.3	0.9	5.7	4.77	65	883	1439.4	0.6	0.03	0.37	—	9.9158
2022-Q1	5434712	71	4.2	1.1	0.5	8.53	67	862.9	1410.3	0.6	0.03	0.37	58750	10.81
2022-Q2	5434712	71.6	4.2	1	0.5	11.77	68.7	854.9	1429.3	0.61	0.03	0.36	24425	4.49
2022-Q3	5434712	71.4	4	1.1	0.5	13.27	62.3	856.3	1465.7	0.61	0.03	0.36	11915	2.19
2022-Q4	5434712	71.3	4	1	0.5	14.87	60.8	822.9	1503.5	0.63	0.03	0.34	9050	1.67
2023-Q1	5428792	71.8	4	1.1	2.1	15.1	58.9	853.4	1512.3	0.62	0.02	0.35	8610	1.59
2023-Q2	5428792	72	3.9	1	2.1	12.53	60.3	868.3	1526.2	0.62	0.02	0.35	6880	1.27
2023-Q3	5428792	71.9	3.9	1.1	2.1	9.63	61	881.5	1529.5	0.62	0.02	0.36	7775	1.43
2023-Q4	5428792	72.1	3.7	1.1	2.1	7.1	59.3	887.2	1566.9	0.62	0.02	0.35	6865	1.26
2024-Q1	5424687	72.4	3.7	1.3	1.9	3.63	61.8	861.4	1521.9	0.62	0.03	0.35	6890	1.27
2024-Q2	5424687	72.5	3.6	1.2	1.9	2.47	58.3	863.1	1547	0.63	0.02	0.35	6930	1.28
2024-Q3	5424687	72.3	3.5	1.2	1.9	3.03	52.1	855.1	1538.1	0.63	0.02	0.35	6350	1.17
2024-Q4	5424687	72.5	3.5	1.1	1.9	3.43	52	861.8	1564.8	0.63	0.02	0.35	5990	1.1
2025-Q1	5419451	72.6	3.5	1.1	0.8	4.17	56.8	841.1	1526.9	0.63	0.02	0.35	3445	0.64
2025-Q2	5419451	72.4	3.6	1	0.8	4.27	61.6	844.5	1528.2	0.63	0.03	0.35	3055	0.56
2025-Q3	5419451	72.2	3.6	1	0.8	4.53	63.8	851.4	1532.4	0.63	0.03	0.35	4980	0.92
2025-Q4	5419451	72.1	3.7	1	0.8	3.97	60.1	851.4	1559.2	0.63	0.02	0.34	5250	0.97

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.26: Main data for Slovenia

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	2066880	69.7	3.6	2.4	4.4	1.53	43.3	313.7	573	0.62	0.05	0.34	—	1.1737
2018-Q2	2066880	70.3	3.4	2.6	4.4	2.13	45.7	319	584.9	0.62	0.05	0.34	—	1.1737
2018-Q3	2066880	70.8	3.3	2.5	4.4	2.1	39.9	332.6	585	0.61	0.04	0.35	—	1.1737
2018-Q4	2066880	71.4	3	2.5	4.4	1.93	38.5	323.8	594.4	0.62	0.04	0.34	—	1.1737
2019-Q1	2080908	71.3	3	2.5	3.5	1.37	38.2	315	598	0.63	0.04	0.33	—	1.2317
2019-Q2	2080908	71.7	2.8	2.3	3.5	1.77	41.3	332.1	594.2	0.61	0.04	0.34	—	1.2317
2019-Q3	2080908	71	3.1	2.2	3.5	2.03	34.1	344.4	578.9	0.6	0.04	0.36	—	1.2317
2019-Q4	2080908	71.1	2.7	2.2	3.5	1.63	29.5	333.4	592.2	0.62	0.03	0.35	—	1.2317
2020-Q1	2095861	71.4	2.8	2.1	-4.1	1.67	31.9	341.3	586.8	0.61	0.03	0.36	—	1.2549
2020-Q2	2095861	69.2	3.3	1.4	-4.1	-1.17	36	322.9	586.5	0.62	0.04	0.34	—	1.2549
2020-Q3	2095861	69.4	3.3	1.7	-4.1	-0.57	32.5	332.9	586.5	0.62	0.03	0.35	—	1.2549
2020-Q4	2095861	70.3	3.3	1.6	-4.1	-0.93	35.2	317.9	606.4	0.63	0.04	0.33	—	1.2549
2021-Q1	2108977	68.8	3.4	2.1	8.4	-0.63	26.7	273.9	597	0.67	0.03	0.31	—	1.2589
2021-Q2	2108977	71.9	2.9	2.6	8.4	2.03	33.6	283.1	630.7	0.67	0.04	0.3	—	1.2589
2021-Q3	2108977	72.7	2.9	2.8	8.4	2.27	35	293.6	635.8	0.66	0.04	0.3	—	1.2589
2021-Q4	2108977	72.4	3	2.8	8.4	4.5	33.5	289	619.3	0.66	0.04	0.31	—	1.2589
2022-Q1	2107180	73	2.7	3	2.7	6.33	31	279.3	622.9	0.67	0.03	0.3	860	0.41
2022-Q2	2107180	73.2	2.9	3.2	2.7	8.97	35.1	283.8	627.8	0.66	0.04	0.3	4805	2.28
2022-Q3	2107180	73.3	2.6	3	2.7	11.27	34.8	304	622.9	0.65	0.04	0.32	1120	0.53
2022-Q4	2107180	73.1	2.3	2.8	2.7	10.63	33.8	286.3	618.2	0.66	0.04	0.31	635	0.3
2023-Q1	2116972	71.8	2.3	2.9	2.4	9.9	29	305.5	595.2	0.64	0.03	0.33	475	0.22
2023-Q2	2116972	73.2	2.5	2.8	2.4	7.97	37	302.1	603.3	0.64	0.04	0.32	365	0.17
2023-Q3	2116972	72.2	2.5	2.7	2.4	6.3	26.2	308.6	600.8	0.64	0.03	0.33	345	0.16
2023-Q4	2116972	72.9	2.3	2.5	2.4	4.97	28.7	308.9	602.1	0.64	0.03	0.33	365	0.17
2024-Q1	2123949	74	2.2	2.5	1.7	3.4	32.6	312.3	633.7	0.65	0.03	0.32	290	0.14
2024-Q2	2123949	73.5	2.3	2.4	1.7	2.37	36	310.8	621.2	0.64	0.04	0.32	380	0.18
2024-Q3	2123949	72.2	2.8	2.4	1.7	1.07	28.7	308.2	626.4	0.65	0.03	0.32	565	0.27
2024-Q4	2123949	72.8	2.4	2.2	1.7	1.2	25.1	327.1	620.5	0.64	0.03	0.34	365	0.17
2025-Q1	2130850	73.1	2.5	2.3	1.1	2.13	29.4	320.6	617.7	0.64	0.03	0.33	280	0.13
2025-Q2	2130850	72.7	2.2	2.1	1.1	2.23	25	312.1	621.1	0.65	0.03	0.33	235	0.11
2025-Q3	2130850	73	2.7	2.2	1.1	2.87	29.2	313	631.8	0.65	0.03	0.32	395	0.19
2025-Q4	2130850	72.7	2.7	2.2	1.1	2.7	25.7	308.1	629.8	0.65	0.03	0.32	645	0.3

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.27: Main data for Spain

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	46645070	61.8	10.5	0.7	2.4	1.07	822.8	3801.1	14018.5	0.75	0.04	0.2	—	1.9632
2018-Q2	46645070	62.3	10	0.6	2.4	1.83	809.7	3913.5	14382	0.75	0.04	0.2	—	1.9632
2018-Q3	46645070	62.6	9.7	0.7	2.4	2.27	750.3	3941.7	14589.8	0.76	0.04	0.2	—	1.9632
2018-Q4	46645070	62.9	9.4	0.6	2.4	1.73	808.8	3967.4	14535.7	0.75	0.04	0.21	—	1.9632
2019-Q1	46918951	63.2	9.2	0.7	2	1.13	826.6	3964.6	14430.8	0.75	0.04	0.21	—	2.0038
2019-Q2	46918951	63.3	9.2	0.7	2	1.03	793.9	4019.4	14728.3	0.75	0.04	0.21	—	2.0038
2019-Q3	46918951	63.1	9.2	0.7	2	0.4	729.4	4058.1	14806.8	0.76	0.04	0.21	—	2.0038
2019-Q4	46918951	63.6	9	0.7	2	0.5	776.7	4019.9	14885.4	0.76	0.04	0.2	—	2.0038
2020-Q1	47318050	63.3	9	0.7	-10.9	0.7	769.8	4019.7	14599.7	0.75	0.04	0.21	—	1.9976
2020-Q2	47318050	58.9	9.5	0.5	-10.9	-0.63	747.1	3784.6	13793.5	0.75	0.04	0.21	—	1.9976
2020-Q3	47318050	60.4	10.5	0.6	-10.9	-0.63	710.6	3905.9	14258.8	0.76	0.04	0.21	—	1.9976
2020-Q4	47318050	61.2	10.4	0.6	-10.9	-0.77	763.4	3943	14318.5	0.75	0.04	0.21	—	1.9976
2021-Q1	47400798	61.5	10	0.7	6.7	0.5	796.5	3895	14226.6	0.75	0.04	0.21	—	2.0557
2021-Q2	47400798	62.1	10.1	0.8	6.7	2.3	803.2	3987.5	14593.7	0.75	0.04	0.21	—	2.0557
2021-Q3	47400798	63.1	9.7	0.8	6.7	3.4	761.4	4024.4	14985	0.76	0.04	0.2	—	2.0557
2021-Q4	47400798	63.9	8.8	0.8	6.7	5.83	831.7	4041.9	15041.6	0.76	0.04	0.2	—	2.0557
2022-Q1	47486843	64.2	8.6	0.8	6.4	7.87	826.2	4019	14985.7	0.76	0.04	0.2	32580	0.69
2022-Q2	47486843	64.4	8.4	0.9	6.4	8.93	792.2	4116.9	15335.4	0.76	0.04	0.2	92820	1.95
2022-Q3	47486843	64.3	8.3	0.9	6.4	10.07	727.1	4145.6	15494.4	0.76	0.04	0.2	18215	0.38
2022-Q4	47486843	64.2	8.5	0.9	6.4	6.5	755.1	4107.8	15397.1	0.76	0.04	0.2	14675	0.31
2023-Q1	48085361	64.7	8.3	0.9	2.5	5	748.3	4107.7	15388.7	0.76	0.04	0.2	11240	0.23
2023-Q2	48085361	65.4	7.8	0.9	2.5	2.77	751.7	4106.6	16021.2	0.77	0.04	0.2	7305	0.15
2023-Q3	48085361	65.6	7.9	0.9	2.5	2.6	697	4228.8	16127.9	0.77	0.03	0.2	6725	0.14
2023-Q4	48085361	65.7	7.8	0.9	2.5	3.37	765.8	4261.2	15975.9	0.76	0.04	0.2	7490	0.16
2024-Q1	48619695	65.8	7.7	0.9	3.5	3.23	742.1	4199	15917.8	0.76	0.04	0.2	8115	0.17
2024-Q2	48619695	66	7.6	0.9	3.5	3.6	747.5	4320.2	16213.9	0.76	0.04	0.2	9595	0.2
2024-Q3	48619695	66.1	7.4	0.9	3.5	2.33	707.9	4339.2	16367.9	0.76	0.03	0.2	9310	0.19
2024-Q4	48619695	66.4	7	0.9	3.5	2.33	712.6	4351.4	16372.9	0.76	0.03	0.2	8805	0.18
2025-Q1	49128297	66.6	7.1	0.9	2.8	2.67	733.9	4346	16235.3	0.76	0.03	0.2	7820	0.16
2025-Q2	49128297	66.9	6.9	0.9	2.8	2.17	737.3	4475.9	16574.2	0.76	0.03	0.21	6215	0.13
2025-Q3	49128297	67	6.9	0.9	2.8	2.8	715.1	4573.6	16609.7	0.76	0.03	0.21	7300	0.15
2025-Q4	49128297	67.3	6.6	0.9	2.8	3.13	749.5	4535.9	16661.9	0.76	0.03	0.21	8500	0.17

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.28: Main data for Sweden

qtr	pop	emp	unemp	jvac	gdpr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	10120242	77	4.6	2.5	1.8	1.73	69.5	880.3	3829.5	0.8	0.01	0.18	—	0.5108
2018-Q2	10120242	77	4.7	2.5	1.8	1.97	70.1	889.8	3922.1	0.8	0.01	0.18	—	0.5108
2018-Q3	10120242	77	4.8	2.5	1.8	2.27	77.9	887.2	3963	0.8	0.02	0.18	—	0.5108
2018-Q4	10120242	77	4.8	2.4	1.8	2.23	68.1	876.7	3898.8	0.8	0.01	0.18	—	0.5108
2019-Q1	10230185	77	5	2.4	2.6	1.9	63.5	874.2	3867.4	0.8	0.01	0.18	—	0.5651
2019-Q2	10230185	76.7	4.8	2.5	2.6	1.93	66.3	893.7	3924.7	0.8	0.01	0.18	—	0.5651
2019-Q3	10230185	76.7	5.2	2.4	2.6	1.37	64.4	913	3951.5	0.8	0.01	0.19	—	0.5651
2019-Q4	10230185	76.7	5.1	2.3	2.6	1.7	65.2	881	3910.7	0.81	0.01	0.18	—	0.5651
2020-Q1	10327589	76.1	5.3	2.2	-1.9	1.2	58.3	869	3858.1	0.81	0.01	0.18	—	0.583
2020-Q2	10327589	74.2	6.2	1.6	-1.9	0.27	63.5	867.8	3835.7	0.8	0.01	0.18	—	0.583
2020-Q3	10327589	74.4	6.9	1.7	-1.9	0.77	66.7	876.6	3876.7	0.8	0.01	0.18	—	0.583
2020-Q4	10327589	75.1	6.5	1.8	-1.9	0.4	59.6	876.5	3829.2	0.8	0.01	0.18	—	0.583
2021-Q1	10379295	74.2	6.7	1.9	5.2	1.93	54.8	845.2	3706.6	0.8	0.01	0.18	—	0.5874
2021-Q2	10379295	75	6.8	2.4	5.2	2.33	62.9	868	3809.6	0.8	0.01	0.18	—	0.5874
2021-Q3	10379295	75.4	6.6	2.6	5.2	2.43	66.6	880.7	3848.6	0.8	0.01	0.18	—	0.5874
2021-Q4	10379295	75.8	6	2.9	5.2	3.9	71.8	854.3	3858.4	0.81	0.02	0.18	—	0.5874
2022-Q1	10452326	76.3	5.7	3.1	1.3	4.87	65.6	853.1	3875.7	0.81	0.01	0.18	17850	1.71
2022-Q2	10452326	77.1	5.8	3.3	1.3	7.67	73.5	855.9	4033.6	0.81	0.01	0.17	18355	1.76
2022-Q3	10452326	77.3	5.3	3.2	1.3	9.37	68.9	847.5	4120.4	0.82	0.01	0.17	6205	0.59
2022-Q4	10452326	77.1	5.5	3	1.3	10.23	67.1	847.6	3997	0.81	0.01	0.17	4275	0.41
2023-Q1	10521556	77.5	5.5	3.2	-0.2	9.13	60.1	852.5	4007.7	0.81	0.01	0.17	3090	0.29
2023-Q2	10521556	77.6	5.7	2.9	-0.2	6.9	69.7	850.5	4115.8	0.82	0.01	0.17	3285	0.31
2023-Q3	10521556	77.4	5.9	2.6	-0.2	4.83	66.3	871.7	4134.1	0.82	0.01	0.17	2625	0.25
2023-Q4	10521556	77.2	6.1	2.4	-0.2	3.07	61.7	874.1	4040.5	0.81	0.01	0.18	1780	0.17
2024-Q1	10551707	76.9	6.2	2.5	1	2.77	63.2	831.4	4011.4	0.82	0.01	0.17	3120	0.3
2024-Q2	10551707	77	6.3	2.2	1	2.1	67.5	842	4115.5	0.82	0.01	0.17	2760	0.26
2024-Q3	10551707	76.6	6.4	2.2	1	1.4	68.9	855	4118.3	0.82	0.01	0.17	3150	0.3
2024-Q4	10551707	76.2	6.3	2.2	1	1.73	62.9	845.2	4003.1	0.82	0.01	0.17	1745	0.17
2025-Q1	10587710	76.5	6.7	1.9	1.5	2.3	61.6	853.4	3992	0.81	0.01	0.17	1855	0.18
2025-Q2	10587710	76.6	6.5	1.9	1.5	2.43	60.7	855.2	4105	0.82	0.01	0.17	2370	0.22
2025-Q3	10587710	76.2	6.7	1.9	1.5	3.23	65.7	874.5	4096.8	0.81	0.01	0.17	2750	0.26
2025-Q4	10587710	76.3	6.9	2	1.5	2.47	58.8	850.7	4037.2	0.82	0.01	0.17	2200	0.21

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.

Table A.29: Main data for Switzerland

qtr	pop	emp	unemp	jvac	gdpgr	infl	agri	ind	serv	s%	a%	i%	ukrTP	ukrPC
2018-Q1	8484130	79.8	3.8	1.4	3.3	0.67	113.7	899.4	3317.8	0.77	0.03	0.21	—	0.7634
2018-Q2	8484130	80	3.7	1.4	3.3	0.77	118.8	904	3345.6	0.77	0.03	0.21	—	0.7634
2018-Q3	8484130	80.4	3.3	1.5	3.3	1.2	117.1	926.1	3375.5	0.76	0.03	0.21	—	0.7634
2018-Q4	8484130	80.3	3.7	1.5	3.3	0.97	115.9	919.7	3378.3	0.77	0.03	0.21	—	0.7634
2019-Q1	8544527	80.3	3.5	1.5	1.1	0.7	118.3	912.3	3351.7	0.76	0.03	0.21	—	0.7777
2019-Q2	8544527	80.8	3.4	1.7	1.1	0.77	102	907	3423	0.77	0.02	0.2	—	0.7777
2019-Q3	8544527	80.4	3.4	1.6	1.1	0.33	91.1	923.4	3403	0.77	0.02	0.21	—	0.7777
2019-Q4	8544527	80.5	3.1	1.6	1.1	-0.23	91.3	923.4	3436.3	0.77	0.02	0.21	—	0.7777
2020-Q1	8606033	80.4	3.2	1.3	-2.3	-0.13	100.1	908.5	3425.7	0.77	0.02	0.2	—	0.7991
2020-Q2	8606033	79.7	3.6	1.2	-2.3	-1.1	104	897.3	3359.2	0.77	0.02	0.21	—	0.7991
2020-Q3	8606033	79.7	3.9	1.3	-2.3	-1.23	94.2	914.5	3395.1	0.77	0.02	0.21	—	0.7991
2020-Q4	8606033	79.8	3.9	1.3	-2.3	-0.9	87.4	930.2	3445.8	0.77	0.02	0.21	—	0.7991
2021-Q1	8670300	79.2	4.2	1.4	6.2	-0.4	84.1	884.4	3304.2	0.77	0.02	0.21	—	0.8242
2021-Q2	8670300	79.4	4	1.6	6.2	0.23	82.9	854.3	3243.2	0.78	0.02	0.2	—	0.8242
2021-Q3	8670300	79.7	3.7	1.9	6.2	0.7	84	854.8	3309.1	0.78	0.02	0.2	—	0.8242
2021-Q4	8670300	80.1	3.4	2	6.2	1.37	73.1	873.3	3346	0.78	0.02	0.2	—	0.8242
2022-Q1	8738791	80	3.2	2.2	3.5	1.83	70.9	857.8	3250.5	0.78	0.02	0.21	14880	1.7
2022-Q2	8738791	80.1	3.2	2.3	3.5	2.73	71.5	849.5	3218.2	0.78	0.02	0.21	40510	4.64
2022-Q3	8738791	80.3	2.9	2.3	3.5	3.27	76.4	848.8	3226.8	0.78	0.02	0.2	8155	0.93
2022-Q4	8738791	80.3	3.1	2.3	3.5	2.83	78.3	834.6	3280.6	0.78	0.02	0.2	7005	0.8
2023-Q1	8815385	80.5	3	2.2	0.8	3.03	73.7	854.7	3246.4	0.78	0.02	0.2	6160	0.7
2023-Q2	8815385	80.7	3	2.2	0.8	2.2	74.2	877	3324.6	0.78	0.02	0.21	3725	0.42
2023-Q3	8815385	80.6	3.1	2.1	0.8	2	83.9	884.3	3374.4	0.78	0.02	0.2	5010	0.57
2023-Q4	8815385	80.6	3.2	2	0.8	1.9	80.8	885.7	3421.3	0.78	0.02	0.2	3290	0.37
2024-Q1	8962258	80.4	3.1	2	1.4	1.27	81.2	870.9	3374.5	0.78	0.02	0.2	535	0.06
2024-Q2	8962258	80.6	3.2	1.8	1.4	1.4	81.2	885.7	3418.4	0.78	0.02	0.2	3360	0.37
2024-Q3	8962258	80.3	3.5	1.8	1.4	1.03	81.9	910.7	3428.9	0.78	0.02	0.21	2695	0.3
2024-Q4	8962258	80.3	3.5	1.7	1.4	0.6	82.3	912.7	3458.5	0.78	0.02	0.2	2595	0.29
2025-Q1	9051029	80	3.4	1.6	1.3	0.13	79.6	883.9	3447	0.78	0.02	0.2	1845	0.2
2025-Q2	9051029	80.1	3.7	1.6	1.3	0.1	74.6	886.6	3455.5	0.78	0.02	0.2	1410	0.16
2025-Q3	9051029	79.9	3.7	1.6	1.3	0.03	73.8	885.3	3457.7	0.78	0.02	0.2	2660	0.29
2025-Q4	9051029	79.8	3.9	1.6	1.3	0.1	77.8	892.8	3474.1	0.78	0.02	0.2	2215	0.24

Legend / variable definitions:

qtr = quarter; pop = population; emp = employment rate; unemp = unemployment rate; jvac = job vacancy rate.

gdpgr = GDP growth rate; infl = inflation rate.

agri/ind/serv = sector levels (agriculture/industry/services).

s%/a%/i% = sector shares (services/agriculture/industry).

ukrTP = Ukrainian temporary protection (count); ukrPC = Ukrainian per capita.