

Caselli, Mauro; Traverso, Silvio

**Working Paper**

## Under Pressure: Trade Competition from Low-Wage Countries and Demand for Immigrant Labor in Italy

GLO Discussion Paper, No. 1562

**Provided in Cooperation with:**

Global Labor Organization (GLO)

*Suggested Citation:* Caselli, Mauro; Traverso, Silvio (2025) : Under Pressure: Trade Competition from Low-Wage Countries and Demand for Immigrant Labor in Italy, GLO Discussion Paper, No. 1562, Global Labor Organization (GLO), Essen

This Version is available at:

<https://hdl.handle.net/10419/310924>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# UNDER PRESSURE: TRADE COMPETITION FROM LOW-WAGE COUNTRIES AND DEMAND FOR IMMIGRANT LABOR IN ITALY

Mauro Caselli<sup>a,c</sup> and Silvio Traverso<sup>b,c</sup>

<sup>a</sup>*School of International Studies, University of Trento, Italy*

<sup>b</sup>*DiGSPES, University of Eastern Piedmont, Italy*

<sup>c</sup>*Global Labor Organization*

February 2025

## Abstract

This study examines whether trade competition from low-wage countries (LWCs) can influence immigration patterns in an advanced economy. We focus on Italy between 2003 and 2013, a period characterized by rising market pressure from China and Eastern Europe. Using census data on sectoral employment, administrative records on immigrants by nationality, and disaggregated bilateral trade data, we investigate whether heightened import competition acted as a pull factor for migrant workers at the local labor market level. To identify the exogenous component of these trade shocks, we adopt a shift-share instrumental variable strategy, while disaggregating immigrant data by nationality allows us to control in detail for the role of local networks and for bilateral push and pull factors. Our findings indicate that trade competition from LWCs significantly increased local immigrant shares. We hypothesize, and provide indirect evidence, that firms under competitive pressure tried to cut labor costs by relying on a more flexible, lower-paid workforce, primarily composed of foreign workers.

*Keywords:* Import competition, International migration, Trade shocks, Italy.

*JEL codes:* F14, F16, F22, J61.

## 1 Introduction

The increase in international migration and trade has been a defining feature of the wave of globalization that gained momentum in the late 20th century, following the fall of the Iron Curtain in Europe and the implementation of the Gaige Kaifang reforms in China. On the one hand, the liberalization of trade and investment opened new markets, leading to a surge in cross-border exchanges of goods and services, as well as heightened competitive pressure on the tradable sectors of Western economies. On the other hand,

technological advancements and cultural shifts reduced the economic and social costs of migration, prompting an increasing number of people to seek employment opportunities and improved living standards abroad. Over four decades later, it is evident that these changes set in motion complex economic, social, and demographic transformations with long-lasting consequences, profoundly shaping the current global landscape.

Because of their relevance, these transformations have become a central focus of research, giving rise to a rich body of literature that analyzes migration and trade from multiple perspectives. However, while the consequences of immigration on trade have been widely studied (e.g., Gould, 1994; Peri and Requena-Silvente, 2010; Felbermayr and Toubal, 2012), the role of trade shocks as potential drivers of migration remains largely unexplored. This paper seeks to address this gap in the literature by empirically investigating whether, and to what extent, import competition from low-wage countries (LWCs) – particularly from China and Eastern European countries (EECs) – can act as a pull factor for migration. But how might this occur? Relaxing the assumptions of competitive labor markets, our argument is that the interaction between trade-induced pressures and the structural vulnerabilities of immigrant workers, particularly those from lower- and middle-income countries, plays a critical role. Adopting a perspective similar to that of Venturini and Villosio (2018), we contend that firms facing increased foreign competition may turn to immigrant labor as a cost-cutting strategy. Indeed, compared to natives with similar qualifications, immigrants are often more willing to accept lower wages and greater job instability, making them an attractive workforce option in times of economic strain.

This cost-cutting response to trade shocks can influence the demand for immigrant workers through both direct and indirect mechanisms. On the one hand, firms directly exposed to intensified competition from LWCs may seek to reduce operating costs by increasing their reliance on immigrant labor, which is typically more flexible and affordable than native labor. On the other hand, trade-induced economic stress in manufacturing sectors can depress local demand, producing spillover effects for firms operating in non-tradable sectors. In such cases, firms not directly exposed to foreign competition (e.g., service-sector businesses) may also seek to cut costs by turning to “cheaper”, more flexible immigrant labor. These dynamics suggest that, *ceteris paribus*, areas more exposed to trade shocks will attract relatively more immigration, as this is where migrant workers will be likely to find better employment opportunities. Understanding this link between trade pressures from LWCs and local migration patterns provides important insights into the broader labor market consequences of globalization in advanced economies.

Our empirical analysis examines the dynamics of Italian local labor markets between 2003 and 2013, a period marked by multiple trade shocks and significant migration inflows. To identify the effects of trade shocks from China and EECs, we rely on the instrumental variable (IV) strategy pioneered in trade studies by Autor et al. (2013). Furthermore, by leveraging detailed administrative data on the local presence of immigrants – disaggregated by sex and nationality – we control for a variety of push and pull factors that typically shape immigration trends. For example, our approach accounts with great precision for local migrant networks, a key predictor of subsequent immigration waves (Fagiolo and Santoni, 2016; Piras, 2020). Additionally, by including a set of country-of-origin $\times$ time fixed effects, we also control for changes in bilateral and multilateral factors that may have influenced migration to Italy. These factors include, among

others, shifts in bilateral and third-party migration policies (such as the 2007 enlargement of the Schengen area, which enabled hundred of thousands of Eastern Europeans to settle in Western Europe) and macroeconomic fluctuations that might differentially affect immigration flows from specific origins (Beine et al., 2019; Benček and Schneiderheinze, 2024).

Anticipating the results, we find empirical evidence of a positive effect of trade competition from LWCs on the local presence of immigrants in Italy during the period analyzed. The effect is not only statistically robust but also economically significant, as a one standard deviation increase in trade shock exposure is estimated to generate approximately a 0.4 percentage point increase in the local presence of immigrants. Moreover, while we cannot directly test this mechanism, the results align with the hypothesis that firms in Italian regions exposed to increasing competitive pressure may increasingly rely on immigrant labor as a cost-saving strategy.

Besides being one of the largest European countries, some of its characteristics make Italy a particularly suitable case study. First, at the time of this analysis, Italy had a large export-oriented manufacturing sector dominated by small and medium-sized firms specializing in medium- to low-tech goods (Amighini et al., 2011). By the early 2000s, these firms were already facing increasingly intense competition from low-wage country (LWC) imports, driven by largely exogenous shocks such as China’s accession to the WTO, the phasing out of the Agreement on Textiles and Clothing, and the Eastern enlargements of the European common market. All these events occurred during, or just before, the first years covered by our analysis and played a significant role in accelerating the trade competition faced by large segments of the Italian industrial sector (Federico, 2014).

Second, during the same period, Italy experienced a significant rise in immigration: the foreign-born population increased by around three million, resulting in a threefold rise in the immigrant share of the total population, which grew from roughly 2.5% to 7.5%. Although large inflows also occurred in other Western European countries, many of them already had decades-long histories of immigration. By contrast, in Italy, migration remained relatively marginal until the late 1990s.<sup>1</sup> This peculiarity is methodologically relevant because it suggests that the local employment structure in Italy was not meaningfully shaped by earlier migration patterns. As a result, we can reasonably assume that the employment shares of that time were exogenous – a key condition for isolating the causal effects of trade shocks in our empirical analysis.

Third, then as now, Italian labor markets exhibited pronounced segmentation, shaped by multiple structural divides related to regional factors (North vs. South), gender (men vs. women), age (young vs. old), contractual arrangements (standard vs. atypical), and ethnicity (natives vs. immigrants). These divides translate into large and persistent disparities in wages, employment rates, and job security (Fellini and Guetto, 2019). For instance, the less developed South has historically struggled to converge with the more industrialized North, and female labor force participation was – and remains – among the lowest in Western Europe (particularly in Southern regions). Meanwhile, young people faced – and continue to face – high unemployment and precarious contracts.

Within this multi-layered context, the ethnic dimension is central to our analysis.

---

<sup>1</sup>In 1995, immigrants represented only 0.5% of the Italian population – approximately twenty times lower than in France, Germany, or the United Kingdom.

Substantial evidence indicates that migrants in Italy are often concentrated in lower-wage or more precarious jobs (D’Ambrosio et al., 2022), a pattern that may result from limited job-search networks, recognized or unrecognized skill gaps, and potentially various forms of discrimination. Wage disparities and hiring gaps documented among immigrants (Busetta et al., 2018) could reflect explicit or statistical biases but may also partly stem from unobserved worker characteristics, such as informal skills or language proficiency. Regardless of the underlying mechanisms, such segmentation weakens immigrants’ bargaining power in the labor market. As previously discussed, under intensifying import competition, firms facing tighter profit margins may increasingly hire – or rely more heavily on – immigrant labor as a relatively lower-cost, more flexible workforce. This dynamic underpins our hypothesis that rising trade pressures act as a pull factor for migrants, who find comparatively better employment opportunities in local labor markets exposed to these shocks.

This paper is related to several strands of the economic literature related to international trade and migration. First, several studies have examined the impact of trade shocks, ranging from their effects on exposed firms and domestic labor markets (Autor et al., 2013; Federico, 2014; Balsvik et al., 2015; Bloom et al., 2015; Malgouyres, 2017) to their influence on political dynamics (Autor et al., 2020; Caselli et al., 2020; Dippel et al., 2022). We contribute to this literature by showing that trade shocks also influence the share of migrants at the local labor market level.

Second, this paper is related to the extensive literature studying the economic, social, and political push and pull factors influencing migration flows (Mayda, 2010; Beine et al., 2011; Grogger and Hanson, 2011; Bertoli and Moraga, 2013; 2015; Beine et al., 2019; Arif, 2020; Beverelli, 2022; Benček and Schneiderheinze, 2024) as well as the equally extensive research on the consequences of migration for host countries, where much of the focus is on its effects on natives’ wages and employment opportunities (Borjas, 2003; 2013; 2017; Card, 2009; Ottaviano and Peri, 2012; Manacorda et al., 2012; Ottaviano et al., 2013; Dustmann et al., 2013; 2016; Chletsos and Roupakias, 2019; Fusaro and López-Bazo, 2025). We contribute to this literature by showing that trade competition can act as a pull factor and by providing indirect evidence that firms exposed to increasing competitive pressure may increasingly rely on immigrant labor as a cost-saving strategy.

Third, recognizing that migration and trade are interconnected, researchers have shown how immigration fosters trade by creating market linkages (Gould, 1994; Head and Ries, 1998; Dunlevy and Hutchinson, 1999; Girma and Yu, 2002; Peri and Requena-Silvente, 2010; Bastos and Silva, 2012; Felbermayr and Toubal, 2012; Ariu, 2022; Marchal and Sabbadini, 2023), as well as how immigrant workers influence firm performance (Mitaritonna et al., 2017; Ottaviano et al., 2018; Sabbadini, 2024). This paper shows that not only the presence of migrants can affect trade, but trade competition can also affect migration.

The remainder of the paper is organized as follows. Section 2 describes the data and methods, detailing our strategy for identifying the exogenous component of trade shocks and controlling for other push and pull factors. Section 3 presents the empirical findings along with a series of robustness checks. These results are further discussed in Section 4, which also explores potential mechanisms driving the observed effects. This section also considers the limitations of the analysis, including issues of external validity, and discusses some of their social and economic implications. Section 5 concludes.

## 2 Empirical Strategy

### 2.1 Data

The empirical analysis is based on a panel data set of Italian local labor markets for years 2003, 2008, and 2013. The boundaries of the local labor markets employed in this study follow those of the 784 “labor market areas” (LMAs) identified by the Italian Institute of Statistics (Istat) for the year 1991. On average, LMAs consist of about 10 municipalities and have a population of about 70 thousand. Importantly, being defined on the basis of economic rather than administrative criteria, local labor markets refer to economically integrated areas that, by construction, are meant to minimize economic spillovers and therefore represent the most suitable geographical units to identify the effects of trade shocks. It is also important to note that in 1991 neither international migration nor trade competition from China and Eastern Europe were economically relevant phenomena, and hence it can be plausibly argued that the use of 1991 LMAs as analytical units does not raise endogeneity issues.

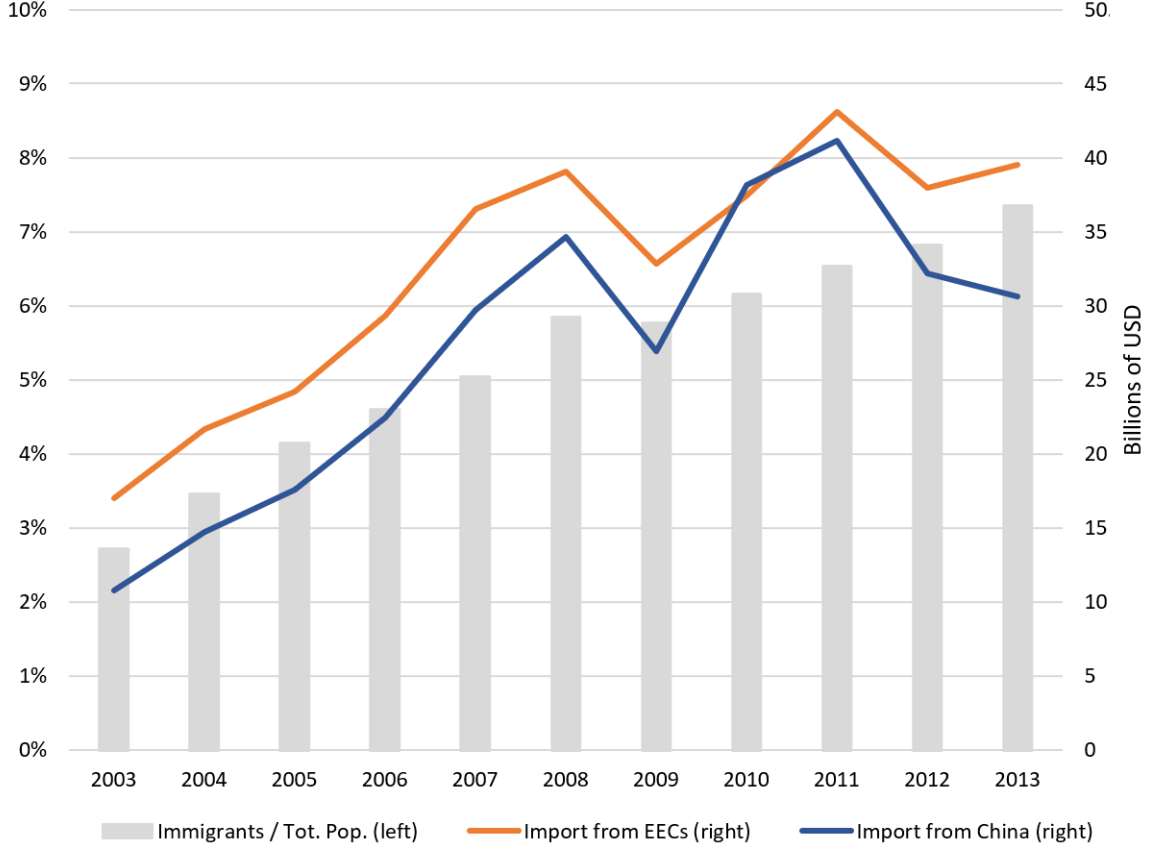
Our panel combines three main sources of data: census information on local economic structures, administrative records on immigrant populations, and data on national imports. Specifically, we draw on the 1991 and 2001 Istat Censuses of Industry and Services (CIS), which report the number of workers employed in each three-digit Nace sector for every municipality. Information on the local presence of immigrants comes from the Istat GeoDemo database, which crucially provides details on migrants’ nationality and sex. Finally, for trade flows, we use bilateral trade data at the six-digit HS level, extracted from the United Nations Comtrade database. We then map six-digit HS products to three-digit Nace sectors through the Eurostat RAMON metadatabase. Finally, additional indicators on Italian regions – such as net hospital migration, R&D expenditure, and the share of non-performing loans – are sourced from Istat’s Regional Development Indicators.

Figure 1 illustrates the broad trajectories of immigration and import competition from LWCs during the period covered by our analysis. Over the course of a decade, the share of immigrants in the total population at the national level increased threefold. With the exception of 2009, positive growth was observed each year, although the pace slowed following the financial crisis. Imports from China and EECs also rose steadily until the onset of the crisis, after which they faltered. Notably, despite an initial rebound, imports declined again during the European debt crisis, which impacted Italy and other highly indebted countries particularly severely.

### 2.2 Measuring the Local Exposure of Import Competition from LWCs

We proxy the local exposure to the trade shock from LWCs by means of a shift-share measure of the local change in imports per worker. We design this measure by interacting the local level of sectoral employment with national-level data on sectoral imports from a set of countries that, during the 2000s, were characterized by a relatively low cost of labor. In this way, the local exposure to trade competition is jointly driven by the cross-sectional specialization of LMAs (calculated on the basis of CIS 2001) and the longitudinal changes in country-level sectoral imports from LWCs. In other words, LMAs specialized in those manufacturing sectors that produce the same class of goods whose imports from China and Eastern Europe are on the rise will be more exposed to the trade shock. In the

Figure 1: Immigration and import competition, Italy



*Notes.* The figure reports the percentage of immigrants in Italy (left-hand scale) and the volumes of imports from China and EECs to Italy (right-hand scale). Source: Own elaboration based on data from Istat GeoDemo and UN Comtrade.

context of international trade, this approach gained momentum after the seminal work of Autor et al. (2013) and rapidly became the standard in the applied literature on the effects of trade shocks.

Formally, we define the exposure of labor market  $i$  at time  $t$  to import competition from the group of low-wage countries  $lwc$  as:

$$\Delta IPW_{i,t}^{lwc} = \sum_s \eta_{i,s}^{01} \frac{\Delta IMP_{s,t}^{lwc}}{L_s^{01}}, \quad (1)$$

where  $\Delta IMP_{s,t}^{lwc} = IMP_{s,t}^{lwc} - IMP_{s,t-1}^{lwc}$  represents the change between  $t - 1$  and  $t$  in the value of goods imported from low-wage countries  $lwc$  that are domestically produced by sector  $s$ . Meanwhile,  $\eta_{i,s}^{01}$  denotes the 2001 employment share of sector  $s$  in LMA  $i$ , defined as  $\eta_{i,s}^{01} = L_{i,s}^{01} / L_i^{01}$ . Finally,  $L_s^{01}$  stands for national employment in sector  $s$  in 2001. As low-wage countries, we separately consider China and a group of eleven Eastern European countries (EECs) that includes Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. All trade values are expressed in constant 2010 US dollars.

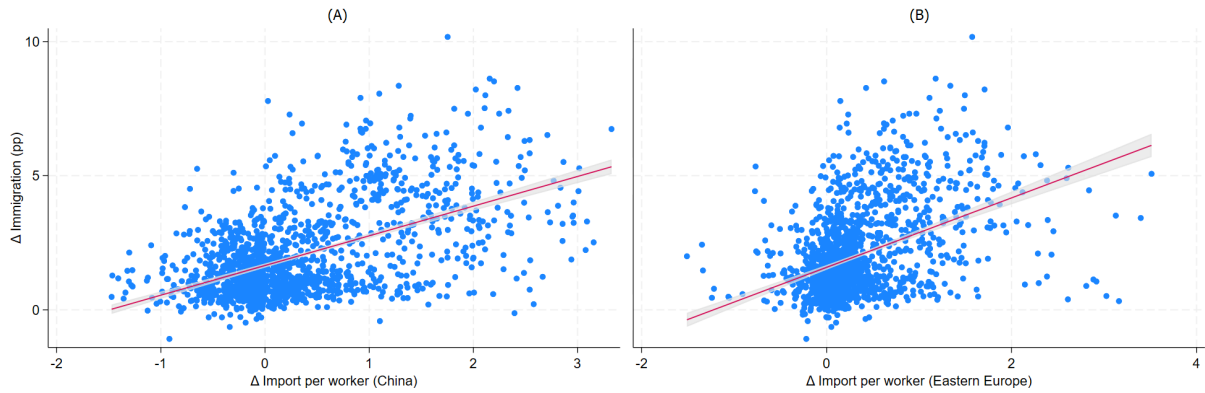
Finally, because the shift-share approach is prone to generating extreme outliers, we

trimmed the top and bottom 1% of the  $\Delta IPW^{lwc}$  distribution to mitigate their impact. This procedure removes a few implausible observations without affecting the robustness of our main results.

### 2.3 Empirical Model

As shown by the scatter plots in Figure 2, changes in the local percentage of immigrants are positively correlated with changes in local exposure to trade competition from China (panel A) and Eastern European countries (panel B). Both correlations are statistically significant and exhibit comparable slopes. However, relying solely on the aggregate local share of immigrants as the dependent variable may conceal important heterogeneity when assessing the impact of trade competition on migration flows.

Figure 2: Changes in immigration and import competition (2003-2008, 2008-2013)



*Notes.* The figure reports the relationship between the changes in import per worker and in the presence of migrants over two five-year periods (2003-2008, 2008-2013) across Italian local labor markets. Panel (A) refers to import from China, panel (B) refers to import from Eastern Europe. Import per worker is measured in thousands of 2010 USD, immigrants in percentage points with respect to the 2003 population. In order to remove outliers, data on the variation in import per worker have been trimmed at the top and bottom 1%.

A central concern is that immigrants are not a homogeneous group but differ along multiple dimensions, among which country of origin arguably plays a pivotal role. First, origin correlates with human capital and with less easily observable traits – such as the reserve wage – that can influence labor market outcomes. Second, it correlates with location choices: since migrant networks reduce the costs of relocating, newcomers often cluster in areas where fellow-countrymen already reside (Munshi, 2003). Consequently, due to these well-known dynamics, the distribution of immigrant communities is highly uneven across regions (e.g., Bangladeshis in metropolitan Rome and Milan, Ecuadorians in Genoa and Milan, and Tunisians in Sicily).

In the case of Italy, in 2013 the top ten nationalities accounted for only three fifths of the total number of officially registered immigrants, and 31 ethnic communities of at least 25,000 resident members were present in the country. Overall, about 50% of immigrants came from other European countries, 20% from Africa, 20% from Asia, and 8% from Latin America and the Caribbean, with Romanians, Albanians, and Moroccans representing the three most common nationalities.



Against this backdrop, a more refined estimation strategy must recognize the heterogeneity tied to migrants' nationality. Hence, we focus on disaggregating the local presence of immigrants by their country of origin. In practical terms, we estimate a mixed first-difference model, where the dependent variable is the change in the percentage of immigrants of each nationality residing in a given local labor market (LMA). This share is defined with respect to the LMA's population in 2003, and its five-year change is computed between 2003 and 2008 and between 2008 and 2013. Formally, our baseline specification is:

$$\Delta IMM_{c,i,t}^{pct} = \beta \Delta IPW_{i,t}^{lwc} + \mathbf{x}'_{c,i,t-1} \boldsymbol{\vartheta} + \boldsymbol{\omega}'_{c,t} \boldsymbol{\delta} + \varepsilon_{c,i,t} , \quad (2)$$

where  $\Delta IMM_{c,i,t}^{pct} = \frac{Immigrants_{c,i,t} - Immigrants_{c,i,t-1}}{Population_i^{03}}$  denotes the five-year change in the percentage of immigrants from country  $c$  over LMA  $i$ 's 2003 population, and  $\Delta IPW_{i,t}^{lwc} = IPW_{i,t}^{lwc} - IPW_{i,t-1}^{lwc}$  is the corresponding five-year change in import per worker. The term  $\boldsymbol{\omega}_{c,t}$  is a set of country-of-origin  $\times$  time fixed effects, and  $\mathbf{x}_{c,i,t-1}$  is a vector of lagged controls (measured at the beginning of the five-year period, i.e., in 2003 and 2008) that vary at the LMA and LMA  $\times$  country-of-origin level. Specifically, these controls include: (a) the local percentage of immigrants from country  $c$  in LMA  $i$ ,<sup>2</sup> (b) the adjusted female-to-male ratio for migrants of each nationality,<sup>3</sup> and (c) the logarithm of the native population in the LMA. These controls capture initial LMA conditions that affect migration dynamics, and help to account for path-dependency.

The coefficient of interest,  $\beta$ , measures the average impact of a change in trade exposure on the share of immigrants for a single nationality. Since the number of nationalities in the analysis is  $C = 197$ , the effect of trade shocks on the overall local prevalence of immigrants is therefore given by  $\beta \times C$ . To implement this model, the dataset is arranged in long format across the two time intervals (2003-2008 and 2008-2013) for 784 LMAs (as defined in 1991). Thus, the maximum sample size is  $C \times L \times \Delta T = 308,986$  observations.

Conducting the analysis at the LMA  $\times$  country-of-origin level offers substantial advantages for causal inference. First, the lagged nationality-specific share and gender ratio help capture pull factors tied to the initial distribution of migrant communities. Second, the country-of-origin  $\times$  time fixed effects,  $\boldsymbol{\omega}_{c,t}$ , absorb all time-varying bilateral and multilateral factors that might alter Italy's relative attractiveness as a destination (see Bertoli and Moraga, 2013) – from macroeconomic cycles (Beine et al., 2019; Arif, 2020) and visa policy changes (Duncan et al., 2020; Beverelli, 2022) to more dramatic shocks such as eruptions of violence in migrants' countries of origin (McKenzie et al., 2014; Bertoli et al., 2017; Foubert and Ruysen, 2024; Wiśniewski et al., 2024). Finally, differencing over five-year periods automatically eliminates time-invariant LMA-specific heterogeneity, reducing potential biases linked to stable local characteristics.

## 2.4 Endogeneity Issues and IV Approach

Our identification of the effect of trade competition on the local presence of immigrants faces two primary threats linked to the potential endogeneity of both the 2001 employment

<sup>2</sup>The local percentage of immigrants from country  $c$  is defined with respect to the total population of the LMA in 2003, namely  $Immigrants_{c,i,t-1} / Population_i^{03}$ .

<sup>3</sup>The adjusted female-to-male ratio for migrants is defined as  $(Immigrants_{c,i,t-1}^{female} + 1) / (Immigrants_{c,i,t-1}^{male} + 1)$ .

shares and the aggregate sectoral imports.

On the one hand, the industry mix observed in 2001 – used here to gauge local exposure to trade competition – may already have been influenced by earlier trade and migration shocks. For example, early migration waves may have altered the employment structure of local labor markets, reversing the causality nexus between immigration and our measures of import competition. In a similar way, Italy’s 2001 economic structure might have already been influenced by the gradual rise in trade competition from China and several Eastern European countries observed during the 1990s.

On the other hand, changes in sectoral imports may reflect unobserved domestic demand shocks rather than the exogenous increase in the competitiveness of Chinese and Eastern European exporting firms. For example, a rise in the demand of a given product category will lead to a simultaneous increase in the domestic production and in imports. In this case, however, rather than suffering from an adverse trade shock, the LMAs specialized in the production of those goods will experience a period of bonanza. Assuming that local firms resort to cheaper migrant workforce in order to cope with negative shocks, the endogeneity of Italian sectoral imports will introduce a negative bias in the OLS estimate of  $\beta$ .

In order to address the endogeneity concerns, we identify the local exposure to trade shocks by resorting to an IV approach. In particular, following Autor et al. (2013), we build an IV for  $\Delta IPW^{lwc}$  by using the local employment of year 1991 and the imports from LWCs of a set of countries which are similar to Italy in terms of their economic structure but are poorly correlated with its business cycle. On the one hand, the adoption of the employment structure of 1991 (together with the use of 1991 LMAs as reference geographical units) is meant to address potential endogeneity of the shares. Indeed, in 1991 immigrants accounted for about only 0.6% of the Italian population and import from China and Eastern Europe were negligible. On the other hand, taking the imports of a set of third countries allows us to capture the exogenous component of the trade shock, that is the rise in import which is exogenously determined by advancements in LWCs’ productivity and independent from fluctuations of the domestic demand. In formal terms:

$$\widetilde{\Delta IPW}_{i,t}^{lwc} = \sum_s \eta_{i,s}^{91} \frac{\widetilde{\Delta IMP}_{s,t}^{lwc}}{L_s^{91}}, \quad (3)$$

where  $\widetilde{\Delta IMP}_{st}^{lwc}$  stands for the change in average sectoral import, either from China or from EECs, of a set of countries that are not members of the European Union. The terms  $\eta_{i,s}^{91}$  and  $L_s^{91}$  follow the same definitions as in equation (1) but are based on 1991 census data. For Chinese imports, the IV countries are Australia, Canada, Chile, Japan, New Zealand, South Korea, and the United States; for EEC imports, we use Israel, Norway, Switzerland, and Turkey.

Table 1: Effect of LWCs Import Competition on Local Presence of Immigrants (2SLS)

Dep. var.: $\Delta IMM_{c,i,t}^{pct}$	(1)	(2)	(3)
$\Delta IPW_{i,t}^{China}$	0.0037*** (0.0007)		0.0023*** (0.0008)
$\Delta IPW_{i,t}^{EECs}$		0.0051*** (0.0009)	0.0031*** (0.0012)
$IMM_{c,i,t-1}^{pct}$	0.2423*** (0.0094)	0.2422*** (0.0094)	0.2422*** (0.0094)
$IMM_{c,i,t-1}^{ratio}$	-0.0007*** (0.0002)	-0.0007*** (0.0002)	-0.0007*** (0.0002)
$Ln(NPOP)_{i,t-1}$	0.0007*** (0.0001)	0.0007*** (0.0001)	0.0006*** (0.0001)
Country-of-origin $\times$ Time FE	✓	✓	✓
Observations	293,530	293,530	293,530
Kleibergen-Paap F	11.58	42.30	23.50

Notes. LMA-clustered standard errors are reported in parentheses: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

### 3 The Impact of Trade Competition from LWCs on the Local Presence of Immigrants

#### 3.1 Baseline Results

The two-stage least squares (2SLS) estimates of the model described by equation (2) are reported in Table 1 and constitute our baseline results. Columns (1) and (2) separately show the estimated effect of the Chinese and Eastern European trade shocks on the local presence of immigrants, while column (3) reports them jointly. Before discussing the results, it is worth noting that the first-stage regressions (Table A1 in the Appendix) indicate that the instruments are relevant, as they are positively and significantly correlated with the endogenous regressors. In particular, the average t-statistic for the correlation between the endogenous regressor and its instrument is 4.02, and even in the least favorable case, the instrument remains highly significant ( $p = 0.004$ ). Similarly, the Kleibergen-Paap F statistics suggest that the instruments are reasonably informative. While the value for Chinese imports in column (1) falls below Stock and Yogo's 10% maximal IV size threshold, it remains well above the 15% threshold, suggesting that weak instrument issues are unlikely to meaningfully affect inference.

Overall, the empirical results indicate that migration patterns observed in Italy between 2003 and 2013 were influenced by the international trade dynamics associated with rising import competition from LWCs. In particular, we find that increasing trade competition from China and Eastern Europe led to a significant rise in the percentage of immigrants in Italian local labor markets. These effects are not only statistically significant but, given their overall magnitude, are also economically meaningful. Indeed, according to the estimates in column (1), a one-standard-deviation increase in Chinese imports per worker led, on average, to a 0.46-percentage-point rise in the local preva-

lence of immigrants.<sup>4</sup> Similarly, a one-standard-deviation increase in imports from EECs resulted in a 0.39-percentage-point increase in the local presence of immigrants.

The coefficients associated with the lagged controls, which are highly significant in explaining changes in the local presence of migrants, also warrant discussion. First, we observe that larger local labor markets (in terms of native population) tend to attract relatively more immigrants. This result is somewhat expected, as smaller LMAs often correspond to provincial or rural areas. While the availability of employment opportunities for immigrants in rural or provincial regions versus metropolitan centers may vary depending on the context, larger LMAs typically offer better accessibility (e.g., higher connectivity and overall better transportation infrastructure). Additionally, evidence suggests that large metropolitan areas are generally associated with more favorable attitudes toward immigrants, which can, in turn, influence migrants' location choices (Maxwell, 2019).

Second, we find that the initial presence of migrants of the same nationality is a strong predictor of future inflows, while the correlation is negative for the adjusted female-to-male ratio. The first pattern aligns with standard theories of migration networks, wherein established ethnic communities lower settlement costs for new arrivals. Furthermore, migrants of a given nationality may, on average, hold a comparative advantage in specific local labor markets, possibly due to accumulated experience or sector-specific skills that, for different reasons, can be more common among migrants from certain backgrounds. Hence, aside from lower migration costs stemming from migrant networks, the presence of ethnic communities per se could reflect certain peculiarities of the local labor demand. By contrast, the negative coefficient on the female-to-male ratio may reflect several underlying factors. One plausible explanation is tied to marital status: even after controlling for age, education, and region, female immigrants are notably less likely to be married than their male counterparts,<sup>5</sup> which decreases the likelihood of new arrivals via family reunification. Moreover, a higher share of female immigrants may also be associated with unobservable local labor market characteristics that, in turn, differentially affect demand for immigrant workers.

Finally, the comparison between 2SLS and OLS estimates provides additional insight into the robustness of our results. The instrumental variable estimates are broadly similar to those obtained through ordinary least squares (Table A2 in the Appendix), reinforcing the credibility of our baseline specification. While the direction and magnitude of the estimated effects remain highly consistent across methods, small but systematic differences emerge: the OLS estimates for Chinese trade shocks are slightly larger than their IV counterparts, suggesting a potential upward bias, whereas those for Eastern European trade shocks tend to be smaller, indicating a downward bias. These patterns could be due to unobserved factors that influence local immigration responses differently across trade shocks. Crucially, these biases remain stable across specifications, rather than reversing direction, further reinforcing the validity of our estimates and suggesting they reflect underlying economic relationships rather than modeling artifacts.

---

<sup>4</sup>Since the coefficient indicates the effect of  $IPW^{lwc}$  on each nationality  $c$ , the overall effect of a one-standard-deviation increase in exposure can be calculated as  $\hat{\beta} \times C(= 197) \times SD(\Delta IPW^{lwc})$ .

<sup>5</sup>We verified this using a linear probability model on the 2008 Survey of Italian Households' Income and Wealth from the Bank of Italy.

Table 2: Exclusion of Trade Partners' Immigrants and Analysis of Top 10 Nationalities

Dep. var.: $\Delta IMM_{c,i,t}^{pct}$	No migrants from partners		Top 10 nationalities	
	(1)	(2)	(3)	(4)
$\Delta IPW_{i,t}^{China}$	0.0034*** (0.0007)		0.0511*** (0.0102)	
$\Delta IPW_{i,t}^{EECs}$		0.0039*** (0.0007)		0.0697*** (0.0145)
$IMM_{c,i,t-1}^{pct}$	0.2356*** (0.0087)	0.2217*** (0.0105)	0.2538*** (0.0108)	0.2534*** (0.0107)
$IMM_{c,i,t-1}^{ratio}$	-0.0007*** (0.0002)	-0.0002 (0.0001)	-0.0022*** (0.0007)	-0.0021*** (0.0007)
$Ln(NPOP)_{i,t-1}$	0.0007*** (0.0001)	0.0009*** (0.0001)	0.0085*** (0.0019)	0.0078*** (0.0020)
Country-of-origin $\times$ Time FE	✓	✓	✓	✓
Observations	292,040	277,140	14,900	14,900
Kleibergen-Paap F	11.58	42.29	11.44	41.72

Notes. LMA-clustered standard errors are reported in parentheses: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

### 3.2 Robustness and Sensitivity Checks

In order to assess the robustness of the relationship between import competition and migration, and to better understand its underlying dynamics, we have run a number of checks. First, we address the trade-off between the exogeneity of local labor markets (LMAs) and the minimization of local spillovers by repeating our analysis using Istat's 2001 LMAs as observational units rather than those from 1991. Due to the growing integration of the Italian economy, the number of LMAs declined from 784 in 1991 to 686 in 2001. The results, reported in Table A3 in the Appendix, show no substantial differences from our baseline findings.

Second, we consider the possibility that the endowment of human capital of migrants is somehow correlated with the comparative advantages of their home country. If this is the case, immigrants are more likely to settle in LMAs that are relatively specialized in producing the same goods exported by their country of origin, thus potentially introducing a spurious positive correlation between local exposure to trade competition and the presence of immigrants from the same LWC. While our IV approach should control for this possibility, as it is meant to capture only supply-side characteristics of the increase in imports, it remains possible that some LWCs experience simultaneous increases in worldwide exports and outward migration. Therefore, in the first two columns of Table 2, we report the estimates obtained by excluding Chinese immigrants (column 1) and immigrants from EECs (column 2). The results remain very close to those of Table 1, even though the estimated coefficients are smaller. Smaller coefficients are consistent with the mechanism described above but were also expected because Chinese and Eastern Europeans are among the largest immigrant communities, and thus their exclusion reduces  $\beta$  by construction.

Third, given that we consider 197 migrant nationalities, the dependent variable,  $\Delta IMM_{c,i,t}^{pct}$ , is often zero in many LMA  $\times$  country-of-origin  $\times$  time cells. In fact, only a few

LMAs record at least one new immigrant for each nationality over the five-year reference period. To address this, we re-estimated our model using only the top 10 nationalities, reducing the prevalence of zero observations to below 1%.<sup>6</sup> The results, shown in the last two columns of Table 2, show no meaningful deviation from our baseline estimates. As expected, restricting the analysis to major ethnic groups leads to larger estimated coefficients, since the sample is now concentrated on nationalities with significant inflows.

Fourth, we assess the robustness of our results across migrant groups based on their region of origin. More precisely, we considered four regions: Europe, Asia, Africa, and America.<sup>7</sup> The results, reported in Table 3, confirm a positive and significant effect of trade competition from China and EECs on local immigrant presence, indicating that our baseline results are not driven solely by immigration from a few geographically proximate countries.

Lastly, we also test for the longitudinal stability of the results. More precisely, we assess whether the estimates are stable across the two five-year intervals as well as for the ten-year long difference. The results, presented in Table 4, show that the effect is positive and significant only in the first period (2003–2008), while in the second (2008–2013), the estimated coefficients are not statistically different from zero. Finally, when using ten-year differences (columns 5–6), the impact of Chinese trade competition disappears, while that of EECs competition persists but loses significance.

How should we interpret these results? We believe that at least two factors should be considered. First, from an economic perspective, the 2008–2013 period was a turbulent time, beginning with the global financial crisis and ending at the peak of the European sovereign debt crisis. In the initial period of our analysis, trade competition played a key role in driving local economic downturns. However, during 2008–2013, heightened global trade volatility and other factors (e.g., the credit crunch, as discussed in Cingano et al., 2016; Barone et al., 2018) became the primary forces shaping local downturns. In this context, supply-side trade competition from LWCs no longer had the same destabilizing effect on labor markets, as broader macroeconomic disruptions overshadowed its impact. This shift helps explain why the estimated effect of import competition is no longer significant in the second period and why our instruments appear less informative. Second, by 2008–2013, trade competition from LWCs – which had surged earlier in the decade – had transitioned from being a new shock to an established aspect of the economic environment. Our measure of exposure is based on the 2001 employment mix, and our instrument relies on the 1991 mix. Over time, as intense competition from low-wage countries and successive crises triggered structural changes in Italian local labor markets, shifting local specialization patterns (Federico, 2014). As a consequence, our measure of exposure may have lost some of its relevance because the sectors most vulnerable to competition had already contracted or disappeared.

---

<sup>6</sup>In the full dataset, zeros account for approximately 70% of observations.

<sup>7</sup>“Africa” includes both North and Sub-Saharan Africa. “America” includes North America, South America, and the Caribbean. Due to their small numbers, migrants from Oceania were excluded from this analysis.

Table 3: Results by Continent of Origin

Depvar: $IMM_{c,i,t}^{pct}$	Europe			Asia			Africa			America		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$\Delta IPW_{i,t}^{China}$	0.0064*** (0.0017)		0.0064*** (0.0017)		0.0064*** (0.0017)				0.0007*** (0.0002)			
$\Delta IPW_{i,t}^{ECs}$		0.0136*** (0.0029)		0.0029*** (0.0011)		0.0040*** (0.0009)				0.0015*** (0.0004)		
$IMM_{c,i,t-1}^{pct}$	0.2428*** (0.0105)	0.2424*** (0.0104)	0.2428*** (0.0105)	0.3338*** (0.0401)	0.2428*** (0.0105)	0.1704*** (0.0139)	0.2375*** (0.0267)	0.2376*** (0.0267)				
$IMM_{c,i,t-1}^{ratio}$	-0.0003 (0.0003)	-0.0002 (0.0003)	-0.0003 (0.0003)	-0.0018*** (0.0003)	-0.0003 (0.0003)	-0.0017*** (0.0002)	-0.0003*** (0.0001)	-0.0003*** (0.0001)				
$Ln(NPOP)_{i,t-1}$	0.0011*** (0.0004)	0.0008* (0.0004)	0.0011*** (0.0004)	0.0011*** (0.0002)	0.0011*** (0.0004)	0.0006*** (0.0001)	0.0003*** (0.0001)	0.0003*** (0.0001)				
Cou-origin $\times$ Time FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	67,050	67,050	67,050	67,050	67,050	67,050	67,050	67,050	74,500	74,500	74,500	74,500
Kleibergen-Paap F	11.58	42.28	11.58	42.35	11.58	42.23	11.58	42.23	11.58	11.58	42.30	42.30

Notes. LMA-clustered standard errors are reported in parentheses: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

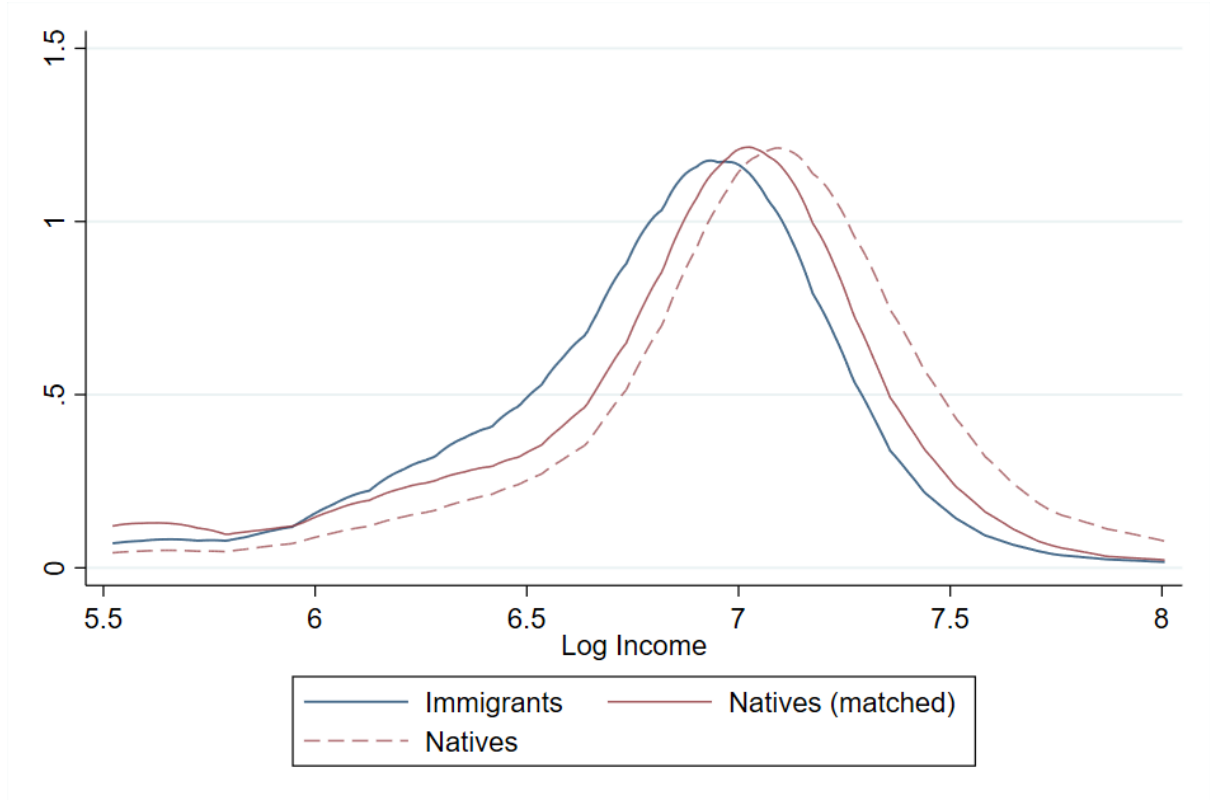
Table 4: Longitudinal Robustness Checks

	2003-2008		2008-2013		2003-2013	
	(1)	(2)	(3)	(4)	(5)	(6)
$\Delta IPW_{i,t}^{China}$	0.0013*** (0.0004)		-0.0017 (0.0017)		0.0008 (0.0006)	
$\Delta IPW_{i,t}^{ECs}$		0.0030*** (0.0007)		-0.0897 (0.6843)		0.0019** (0.0008)
$IMM_{c,i,t-1}^{pct}$	0.6395*** (0.0268)	0.6393*** (0.0268)	0.1216*** (0.0116)	0.1200*** (0.0176)	0.7649*** (0.0369)	0.7648*** (0.0368)
$IMM_{c,i,t-1}^{ratio}$	-0.0012*** (0.0003)	-0.0012*** (0.0003)	-0.0005*** (0.0001)	-0.0007 (0.0013)	-0.0011** (0.0004)	-0.0011** (0.0004)
$Ln(NPOP)_{i,t-1}$	0.0009*** (0.0002)	0.0006*** (0.0002)	0.0006*** (0.0001)	-0.0028 (0.0263)	0.0018*** (0.0003)	0.0016*** (0.0003)
Cou-origin FE	✓	✓	✓	✓	✓	✓
Observations	146,765	146,765	146,765	146,765	146,765	146,765
Kleibergen-Paap F	15.78	60.47	2.401	0.0172	18.20	33.38

Notes. LMA-clustered standard errors are reported in parentheses: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .



Figure 3: Income distribution, natives *vs.* immigrants



*Notes.* The figure reports the distribution of (log) monthly income for natives, for immigrants, and for natives with characteristics similar to those observed among immigrants. In this case, income is measured in current Euros. Matching has been performed on the basis of the following observables: two-digit profession, broad sector of employment (agriculture/industry/services), job seniority, age group, educational attainment, sex, region of residence (NUTS2 level), full time/part time employment, quarter in which the interview took place. Source: Own elaboration based on Istat Labor Force Survey 2008.

### 3.3 Indirect Evidence of a Cost Channel

While the empirical results are robust, explaining the underlying mechanism is more challenging. As anticipated in the introduction and elaborated here, we argue that the main driver is firms' objective to reduce labor costs. We begin with the observation that in Italy – as in many other Western European economies – immigrants, particularly those from lower- and middle-income countries, tend to earn lower wages than natives with comparable education, experience, and other observables. This is evident from Figure 3, which allows to appreciate the wage gap between natives and immigrants with similar observable attributes across the entire income distribution in Italy in 2008.

This wage gap can be attributed to several factors that introduce frictions, creating room for dynamics not captured under the assumptions of perfectly competitive labor markets (for a formal model of frictional labor markets for legal and irregular migrants, see Chassamboulli and Peri, 2015). For example, migrants from low- and middle-income countries often have lower reservation wages and fewer “outside options” compared to natives, particularly when their visa status is tied to their employment (Salis, 2012; Kesici, 2022). Additionally, labor market discrimination – whether taste-based or statistical –

can further suppress wages (Busetta et al., 2018; Caselli and Falco, 2020). Taken together, these labor market frictions diminish the bargaining power of immigrants, exerting downward pressure on their wages.

Under these labor market frictions, negative trade shocks reduce firms’ profit margins and create a more volatile demand environment, prompting employers to seek more flexible and lower-cost labor to remain competitive. Immigrants, who are more likely to accept lower wages and tolerate greater job instability, become more attractive hires than natives with equivalent skills. Consequently, firms in industries directly exposed to foreign competition adjust their workforce composition to include a higher share of immigrant labor. Additionally, other sectors indirectly affected by the contraction in local demand induced by the trade shock – such as non-tradable sectors – may adopt similar cost-reduction strategies. In this sense, our work connects with Venturini and Villosio (2018), who discuss how, for similar reasons, the presence of immigrants can help firms during recessions.

Although we cannot directly verify whether immigrants from low- and lower-middle-income countries have functioned as a low-cost, flexible labor pool for Italian firms, we can leverage information on immigrants’ nationalities to gather indirect evidence. Specifically, we hypothesize that the bargaining power of immigrants increases, on average, with the level of income in their country of origin. Based on this assumption, the effect of trade shocks on local immigrant presence should diminish or disappear entirely for immigrants from high-income countries.

To indirectly test the “cost-channel” hypothesis, we perform separate analyses on two subsamples defined by the GDP per capita of migrants’ home countries.<sup>8</sup> The results, presented in Table 5, align with the hypothesized mechanism: trade shocks positively affect the presence of immigrants from low- and middle-income countries (columns 1-2) but do not appear to influence migration dynamics from high-income countries (columns 3-4).

Furthermore, we model an interaction between the GDP per capita of migrants’ countries of origin and local exposure to trade shocks (columns 5–6). This strategy provides another perspective on how the economic context in sending countries influences the relationship between trade shocks and migration dynamics. Because of the presence of country-of-origin $\times$ time fixed effects, we cannot estimate the direct effect of sending countries’ GDP per capita. This is not critical, however, as our primary interest lies in the interaction term, which is negative and highly significant. This finding indicates that the effect of trade shocks on migration dynamics decreases substantially as the income level of the sending country increases, lending additional support to the cost-channel hypothesis.

---

<sup>8</sup>We classify as “high income” those countries with a GDP per capita of at least 25,000 constant 2010 US dollars at the beginning of each period (i.e., 2003 and 2008). Results remain qualitatively similar when the threshold is lowered to 20,000 dollars.

Table 5: A Cost Channel?

Dep. var.: $\Delta IMM_{c,t}^{pct}$	Low & middle income		High income		Interaction	
	(1)	(2)	(3)	(4)	(5)	(6)
$\Delta IPW_{i,t}^{China}$	0.0043*** (0.0009)		0.0006* (0.0003)		0.0057*** (0.0009)	
$\Delta IPW_{i,t}^{EECs}$		0.0061*** (0.0011)		0.0004 (0.0004)		0.0074*** (0.0011)
$\Delta IPW_{i,t}^{China} \times Ln(GDP_{pc,t-1}^{orig})$					-0.0015*** (0.0002)	
$\Delta IPW_{i,t}^{EEC} \times Ln(GDP_{pc,t-1}^{orig})$					-0.0018*** (0.0003)	
$IMM_{c,i,t-1}^{pct}$	0.2494*** (0.0097)	0.2494*** (0.0097)	0.0243 (0.0309)	0.0243 (0.0309)	0.2421*** (0.0094)	0.2422*** (0.0094)
$IMM_{c,i,t-1}^{ratio}$	-0.0008*** (0.0002)	-0.0008*** (0.0002)	-0.0000 (0.0001)	-0.0000 (0.0001)	-0.0007*** (0.0002)	-0.0007*** (0.0002)
$Ln(NPOP)_{i,t-1}$	0.0009*** (0.0002)	0.0008*** (0.0002)	-0.0002*** (0.0001)	-0.0002*** (0.0001)	0.0007*** (0.0001)	0.0007*** (0.0001)
Cou-origin $\times$ Time FE	✓	✓	✓	✓	✓	✓
Observations	236,165	236,165	52,895	52,895	286,825	286,825
Kleibergen-Paap F stat	11.58	42.45	11.55	41.56	5.872	19.09

Notes. Migrants' countries of origin as "high income" if the GDP per capita is above 25 thousands constant 2010 USD. LMA-clustered standard errors are reported in parentheses: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## 4 Discussion

In previous sections, we document how, in Italy during the first decade of the 2000s, rising import competition from LWCs significantly shaped local migration patterns. Specifically, our results show that, in a context where the immigrant share of the resident population climbed from under 3% to over 7%, a one-standard-deviation increase in local exposure to either Chinese or Eastern European competition led to an increase in the local prevalence of immigrants by about 0.4 percentage points. As demonstrated in earlier sections, these estimates are robust across a variety of model specifications and robustness checks, strengthening confidence that the observed relationship is not merely coincidental.

An important aspect of our approach is that we do not limit the analysis to aggregate immigrant shares but instead disaggregate the phenomenon by nationality. This distinction allows us to incorporate detailed information about the pre-existing distribution of migrant networks, which tend to operate primarily within groups of the same nationality (Fagiolo and Santoni, 2016; Piras, 2020). For example, the local presence of an established Romanian immigrant community is likely to influence future arrivals from Romania but not from Egypt. Failing to properly control for these network effects could introduce bias, particularly if migrant communities from high-sending countries are concentrated in labor markets heavily exposed to rising trade competition (or vice versa). To address this issue, we employ a mixed first-difference model that includes country-of-origin $\times$ time fixed effects, capturing unobserved, time-varying bilateral push and pull factors specific to each nationality. Furthermore, our reliance on an IV framework isolates the supply-side component of trade shocks, mitigating concerns about endogeneity and omitted variables. Together, these features lend credibility to our conclusions about the impact of trade shocks from LWCs on local immigration dynamics.

Shifting from internal to external validity, it is important to clarify under which conditions our findings are more likely to generalize to other advanced economies. First, the mechanism depends on migrants predominantly coming from lower-income countries, which makes them more willing to accept lower wages or more flexible working conditions than similarly qualified natives (Gautié and Schmitt, 2010). This situation largely applies to Europe and the United States, although the latter also attracts more high-skilled immigrants. Notably, significant per capita income gaps between sending and host countries can be enough to justify migration from an economic perspective (from a classical Harris-Todaro perspective), even if trade shocks in the host economy may trigger localized downturns. Second, labor markets cannot be perfectly competitive; there must be frictions – such as limited bargaining power, visa restrictions, or discrimination – that allow wage gaps among comparable workers, or gaps in non-wage expenditures (e.g., lower workplace safety investments, as discussed by D’Ambrosio et al., 2022) for comparable pay, to persist. Finally, the tradable sector should include low- or medium-low-technology industries that compete directly with labor-abundant exporters. In more capital-intensive or high-tech sectors, cheap labor from low-income countries matters less for maintaining competitiveness.

An important caveat when interpreting the changes in local immigrant shares is that it remains difficult to disentangle whether the observed “pull” of trade competition from LWCs is attracting new immigrants or merely redistributing immigrant workers already present in Italy. However, given that overall immigration has consistently increased (with

the exception of 2009), it is plausible that both dynamics are operating simultaneously. In other words, the steady growth in immigration suggests that trade competition may be drawing in new arrivals while also encouraging the relocation of immigrants already residing in the country.

While our analysis focuses on the economic mechanisms linking trade shocks and migration, these dynamics have wider implications that extend beyond the scope of our study. Understanding how firms, labor markets, and societies adjust to migration flows is crucial for interpreting the short- and long-term consequences of trade-induced immigration. Though we do not directly test these aspects, they are closely related to our findings and merit discussion in light of the existing literature.

From both economic and social perspectives, the literature highlights a mix of potential benefits and challenges. In the short term, the downward adjustment of labor costs can help firms facing intense foreign competition remain operational, thereby preventing economic disruption and further job losses for natives. Moreover, the integration of immigrants into the Italian economy can arguably be seen as a first step toward their broader cultural integration, although it remains unclear how their lower pay relative to natives might affect this process, especially given the viscosity of longitudinal wage assimilation (Strøm et al., 2018; Barbiano di Belgiojoso, 2019). Additionally, there is evidence that a mixed immigrants-natives workforce could enhance firm productivity and export competitiveness, particularly in sectors that serve international markets (Mitaritonna et al., 2017; Ottaviano et al., 2018; Hatzigeorgiou and Lodefalk, 2019; Sabbadini, 2024), though this effect remains contingent on specific contexts. On this point, economic theory and empirical evidence suggest that immigration should, on average, have a positive impact on natives' salaries in the short term. However, this impact is inversely related to the degree of substitutability between immigrants and natives, and while the average effect may be positive, it could be negative for natives at the lower end of the income distribution (Amuedo-Dorantes and de la Rica, 2013; Dustmann et al., 2013).

Short-term benefits, however, may be counterbalanced by longer-term risks. First, the choice of firms to compress labor costs by relying on the availability of an immigrant workforce willing to accept lower wages represents, in the words of Venturini and Villosio (2018), a “status-quo oriented strategy” that may disincentivize shock-coping responses based on technological upgrading and innovation. This approach risks creating a lock-in effect, where firms become entrenched in low-value-added production strategies, making it difficult to transition toward higher-productivity, innovation-driven growth. Such dynamics foster further labor market segmentation and wage stagnation. Although these dynamics are not predetermined and depend significantly on the role of labor market institutions (Andersson et al., 2019), a similar pattern seems to have characterized the Italian context. Indeed, the simultaneous rise in low-wage occupations and stagnation in high-skilled, high-wage positions has been a defining feature of the Italian labor market throughout the 2010s. While this trend likely stems from multiple, overlapping factors, it is difficult to rule out low-skilled migration as a potential contributing cause (Basso, 2020; Cuccu and Pontarollo, 2024).

Beyond these strictly economic reasons, a vast empirical literature shows that migration shocks can exacerbate social tensions, trigger political backlashes, and increase support for anti-immigration and identitarian parties (for Italy, see Barone et al., 2016; Caselli et al., 2020; Russo, 2021). Interestingly, as discussed by Caselli et al. (2020), la-

bor market competition may not be the primary driver of this phenomenon. While they point to competition for welfare services and benefits – where the presence of immigrants might lead to perceived or actual rationing for natives – Russo (2021) highlights the role of cultural distance, indirectly suggesting the influence of homophilic preferences.

## 5 Conclusions

In this paper, we explore the nexus between import competition from low-wage countries (LWCs) and immigration. Specifically, focusing on Italian local labor markets during the first decade of the 2000s, we investigate whether increases in import competition from China and Eastern Europe led to a rise in the local presence of immigrants. To the best of our knowledge, this is the first study to establish a causal relationship between trade competition and immigration, contributing to the literature on both the determinants of migration and the effects of trade shocks.

A key feature of our approach is the disaggregation of immigrant shares by nationality, which allows us to account for the impact of pre-existing migrant networks that primarily operate within national communities and to control for time-varying push and pull factors that influence bilateral migration flows between Italy and other countries. Combining this with an IV strategy that addresses the endogeneity of trade flows, we find robust evidence that exposure to trade shocks from LWCs has acted as a pull factor for migration. We hypothesize that this effect stems from local firms’ responses to shock-induced downturns, particularly their efforts to reduce labor costs. Indeed, in the presence of frictional labor markets, firms can rely on a pool of immigrant workers who, compared to natives with similar qualifications, are, on average, willing to accept lower wages and greater job flexibility.

Although we cannot directly test this mechanism, we provide indirect supporting evidence. Specifically, we find that the pull effect diminishes (and, in some cases, vanishes) as the income level of migrants’ country of origin increases. This observation aligns with the notion that migrants from higher-income countries possess stronger “outside” and “voice” options, making them less likely to accept lower wages and precarious working conditions.

The results highlight a seemingly overlooked link between trade globalization and the spatial distribution of immigrants, underscoring how trade competition can reshape local labor demand in ways that disproportionately attract migrant workers, especially in the context of frictional labor markets. Future research could examine how these dynamics vary across different labor market institutional settings, levels of technological adoption, and firm strategies. Investigating whether cost-oriented hiring practices inhibit productivity-enhancing upgrades also represents a critical avenue for further research.

## References

- Amighini, A., Leone, M., and Rabellotti, R. (2011). Persistence versus Change in the International Specialization Pattern of Italy: How Much Does the ‘District Effect’ Matter? *Regional Studies*, 45(3):381–401.
- Amuedo-Dorantes, C. and de la Rica, S. (2013). The immigration surplus and the substitutability of immigrant and native labor: Evidence from Spain. *Empirical Economics*, 44(2):945 – 958.
- Andersson, L. F., Eriksson, R., and Scocco, S. (2019). Refugee immigration and the growth of low-wage work in the EU15. *Comparative Migration Studies*, 7(1).
- Arif, I. (2020). The determinants of international migration: Unbundling the role of economic, political and social institutions. *The World Economy*, 43(6):1699–1729.
- Ariu, A. (2022). Foreign workers, product quality, and trade: Evidence from a natural experiment. *Journal of International Economics*, 139:103686.
- Autor, D., Dorn, D., Hanson, G., and Majlesi, K. (2020). Importing political polarization? The electoral consequences of rising trade exposure. *American Economic Review*, 110(10):3139–3183.
- Autor, D. H., Dorn, D., and Hanson, G. H. (2013). The China Syndrome: Local Labor Market Effects of Import Competition in the United States. *American Economic Review*, 103(6):2121–68.
- Balsvik, R., Jensen, S., and Salvanes, K. G. (2015). Made in China, sold in Norway: Local labor market effects of an import shock. *Journal of Public Economics*, 127:137–144.
- Barbiano di Belgiojoso, E. (2019). The occupational (im)mobility of migrants in Italy. *Journal of Ethnic and Migration Studies*, 45(9):1571 – 1594.
- Barone, G., de Blasio, G., and Mocetti, S. (2018). The real effects of credit crunch in the great recession: Evidence from Italian provinces. *Regional Science and Urban Economics*, 70:352 – 359.
- Barone, G., D’Ignazio, A., de Blasio, G., and Naticchioni, P. (2016). Mr. Rossi, Mr. Hu and politics. The role of immigration in shaping natives’ voting behavior. *Journal of Public Economics*, 136(C):1–13.
- Basso, G. (2020). The Evolution of the Occupational Structure in Italy, 2007–2017. *Social Indicators Research*, 152(2):673 – 704.
- Bastos, P. and Silva, J. (2012). Networks, firms, and trade. *Journal of International Economics*, 87(2):352–364.
- Beine, M., Bourgeon, P., and Bricongne, J.-C. (2019). Aggregate fluctuations and international migration. *The Scandinavian Journal of Economics*, 121(1):117–152.

- Beine, M., Docquier, F., and Özden, C. (2011). Diasporas. *Journal of Development Economics*, 95(1):30–41.
- Benček, D. and Schneiderheinze, C. (2024). Higher economic growth in poor countries, lower migration flows to the OECD – Revisiting the migration hump with panel data. *World Development*, 182:1–20.
- Bertoli, S., Fernández-Huertas Moraga, J., and Keita, S. (2017). The elasticity of the migrant labour supply: Evidence from temporary Filipino migrants. *The Journal of Development Studies*, 53(11):1822–1834.
- Bertoli, S. and Moraga, J. F.-H. (2013). Multilateral resistance to migration. *Journal of Development Economics*, 102:79–100.
- Bertoli, S. and Moraga, J. F.-H. (2015). The size of the cliff at the border. *Regional Science and Urban Economics*, 51:1–6.
- Beverelli, C. (2022). Pull factors for migration: The impact of migrant integration policies. *Economics & Politics*, 34(1):171–191.
- Bloom, N., Draca, M., and Van Reenen, J. (2015). Trade Induced Technical Change? The Impact of Chinese Imports on Innovation, IT and Productivity. *The Review of Economic Studies*, 83(1):87–117.
- Borjas, G. J. (2003). The labor demand curve is downward sloping: Reexamining the impact of immigration on the labor market. *The Quarterly Journal of Economics*, 118(4):1335–1374.
- Borjas, G. J. (2013). The analytics of the wage effect of immigration. *IZA Journal of Migration*, 2:1–25.
- Borjas, G. J. (2017). The wage impact of the Marielitos: A reappraisal. *ILR Review*, 70(5):1077–1110.
- Busetta, G., Campolo, M. G., and Panarello, D. (2018). Immigrants and Italian labor market: Statistical or taste-based discrimination? *Genus*, 74(1):1–20.
- Card, D. (2009). Immigration and inequality. *American Economic Review*, 99(2):1–21.
- Caselli, M. and Falco, P. (2020). As long as they are cheap. Experimental evidence on the demand for migrant workers. *Centro Studi Luca d’Agliano Development Studies Working Paper*, (466).
- Caselli, M., Fracasso, A., and Traverso, S. (2020). Globalization and electoral outcomes: Evidence from Italy. *Economics & Politics*, 32(1):68–103.
- Chassamboulli, A. and Peri, G. (2015). The labor market effects of reducing the number of illegal immigrants. *Review of Economic Dynamics*, 18(4):792–821.
- Chletsos, M. and Roupakias, S. (2019). Do immigrants compete with natives in the Greek labour market? Evidence from the skill-cell approach before and during the great recession. *The BE Journal of Economic Analysis & Policy*, 19(2):20180059.



- Cingano, F., Manaresi, F., and Sette, E. (2016). Does Credit Crunch Investment Down? New Evidence on the Real Effects of the Bank-Lending Channel. *Review of Financial Studies*, 29(10):2737 – 2773.
- Cuccu, L. and Pontarollo, N. (2024). Logistic hubs and support for radical-right populism: Evidence from Italy. *European Journal of Political Economy*, 82.
- Dippel, C., Gold, R., Heblich, S., and Pinto, R. (2022). The effect of trade on workers and voters. *The Economic Journal*, 132(641):199–217.
- Duncan, A., Harris, M. N., Mavisakalyan, A., and Nguyen, T. (2020). Migration flows in commodity cycles: Assessing the role of migration policies. *European Economic Review*, 127:103458.
- Dunlevy, J. A. and Hutchinson, W. K. (1999). The impact of immigration on American import trade in the late nineteenth and early twentieth centuries. *Journal of Economic History*, 59(4):1043–1062.
- Dustmann, C., Frattini, T., and Preston, I. P. (2013). The effect of immigration along the distribution of wages. *Review of Economic Studies*, 80(1):145 – 173.
- Dustmann, C., Schönberg, U., and Stuhler, J. (2016). The impact of immigration: Why do studies reach such different results? *Journal of Economic Perspectives*, 30(4):31–56.
- D’Ambrosio, A., Leombruni, R., and Razzolini, T. (2022). Trading off wage for workplace safety? Gaps between immigrants and natives in Italy. *Economia Politica*, 39:903–960.
- Fagiolo, G. and Santoni, G. (2016). Revisiting the role of migrant social networks as determinants of international migration flows. *Applied Economics Letters*, 23(3):188–193.
- Federico, S. (2014). Industry Dynamics and Competition from Low-Wage Countries: Evidence on Italy. *Oxford Bulletin of Economics and Statistics*, 76(3):389–410.
- Felbermayr, G. J. and Toubal, F. (2012). Revisiting the trade-migration nexus: Evidence from new OECD data. *World Development*, 40(5):928–937.
- Fellini, I. and Guetto, R. (2019). A “U-shaped” pattern of immigrants’ occupational careers? A comparative analysis of Italy, Spain, and France. *International Migration Review*, 53(1):26–58.
- Foubert, K. and Ruysen, I. (2024). Global migration and the role of terrorist attacks. *Journal of Economic Behavior & Organization*, 220:507–530.
- Fusaro, S. and López-Bazo, E. (2025). Geographic differences in the effect of immigration on the native wage distribution: Evidence from Italian provinces. *Journal of Regional Science*, forthcoming.
- Gautié, J. and Schmitt, J. (2010). *Low-wage work in the wealthy world*. Russell Sage Foundation.

- Girma, S. and Yu, Z. (2002). The link between immigration and trade: Evidence from the United Kingdom. *Review of World Economics*, 138(1):115–130.
- Gould, D. M. (1994). Immigrant links to the home country: empirical implications for us bilateral trade flows. *The Review of Economics and Statistics*, pages 302–316.
- Grogger, J. and Hanson, G. H. (2011). Income maximization and the selection and sorting of international migrants. *Journal of Development Economics*, 95(1):42–57.
- Hatzigeorgiou, A. and Lodefalk, M. (2019). Migration and servicification: Do immigrant employees spur firm exports of services? *The World Economy*, 42(11):3368–3401.
- Head, K. and Ries, J. (1998). Immigration and trade creation: econometric evidence from Canada. *Canadian journal of economics*, 31(1):47–62.
- Kesici, M. R. (2022). Labour Market Segmentation within Ethnic Economies: The Ethnic Penalty for Invisible Kurdish Migrants in the United Kingdom. *Work, Employment and Society*, 36(2):328 – 344.
- Malgouyres, C. (2017). The impact of Chinese import competition on the local structure of employment and wages: Evidence from France. *Journal of Regional Science*, 57(3):411–441.
- Manacorda, M., Manning, A., and Wadsworth, J. (2012). The Impact of Immigration on the Structure of Wages: Theory and Evidence from Britain. *Journal of the European Economic Association*, 10(1):120–151.
- Marchal, L. and Sabbadini, G. (2023). Immigrant workers and firm resilience on the export market. *Review of World Economics*, 159(4):1013–1047.
- Maxwell, R. (2019). Cosmopolitan immigration attitudes in large European cities: Contextual or compositional effects? *American Political Science Review*, 113(2):456–474.
- Mayda, A. M. (2010). International migration: A panel data analysis of the determinants of bilateral flows. *Journal of Population Economics*, 23:1249–1274.
- McKenzie, D., Theoharides, C., and Yang, D. (2014). Distortions in the international migrant labor market: evidence from Filipino migration and wage responses to destination country economic shocks. *American Economic Journal: Applied Economics*, 6(2):49–75.
- Mitaritonna, C., Orefice, G., and Peri, G. (2017). Immigrants and firms’ outcomes: Evidence from France. *European Economic Review*, 96:62–82.
- Munshi, K. (2003). Networks in the modern economy: Mexican migrants in the US labor market. *The Quarterly Journal of Economics*, 118(2):549–599.
- Ottaviano, G. I. and Peri, G. (2012). Rethinking the effect of immigration on wages. *Journal of the European Aconomic Association*, 10(1):152–197.

- Ottaviano, G. I., Peri, G., and Wright, G. C. (2013). Immigration, offshoring, and American jobs. *American Economic Review*, 103(5):1925–59.
- Ottaviano, G. I., Peri, G., and Wright, G. C. (2018). Immigration, trade and productivity in services: Evidence from UK firms. *Journal of International Economics*, 112:88–108.
- Peri, G. and Requena-Silvente, F. (2010). The trade creation effect of immigrants: evidence from the remarkable case of Spain. *Canadian Journal of Economics/Revue canadienne d'économie*, 43(4):1433–1459.
- Piras, R. (2020). Internal migration in Italy: The role of migration networks. *Italian Economic Journal*, 6(1):157–195.
- Russo, F. F. (2021). Immigration and nationalism: The importance of identity. *European Economic Review*, 137.
- Sabbadini, G. (2024). Firm-level prices, quality, and markups: The role of immigrant workers. *Review of International Economics*, 32(5):2259–2295.
- Salis, E. (2012). Labour migration governance in contemporary Europe. The case of Italy. *Country Report for the LAB-MIG-GOV Project “Which labour migration governance for a more dynamic and inclusive Europe.”*
- Strøm, S., Piazzalunga, D., Venturini, A., and Villosio, C. (2018). Wage assimilation of immigrants and internal migrants: the role of linguistic distance. *Regional Studies*, 52(10):1423–1434.
- Venturini, A. and Villosio, C. (2018). Are migrants an asset in recession? Insights from Italy. *Journal of Ethnic and Migration Studies*, 44(14):2340 – 2357.
- Wiśniewski, R., Szejgiec-Kolenda, B., Duma, P., Maruniak, E., and Komornicki, T. (2024). Refugees from Ukraine in Poland – Differentiation of spatial distribution and impact on demographic structures. *Population, Space and Place*, page e48.

## Appendix

Table A1: First-stage Regressions

Dep. Var:	(1)	(2)	(3)	
	$IPW_{it}^{China}$	$IPW_{it}^{EECs}$	$IPW_{it}^{China}$	$IPW_{it}^{EECs}$
$\widetilde{IPW}_{it}^{China}$	0.1872*** (0.0550)		0.1732*** (0.0618)	0.0297 (0.0352)
$\widetilde{IPW}_{it}^{EECs}$		1.9055*** (0.2930)	0.4421 (0.4052)	1.7002*** (0.3888)
$IMM_{c,i,t-1}^{pct}$	-0.0032 (0.0170)	0.0066 (0.0135)	-0.0075 (0.0152)	0.0011 (0.0139)
$IMM_{c,i,t-1}^{ratio}$	0.0033** (0.0014)	0.0008 (0.0012)	0.0032** (0.0013)	0.0005 (0.0011)
$Ln(NPOP)_{i,t-1}$	-0.0067 (0.0187)	0.0072 (0.0089)	-0.0122 (0.0142)	0.0019 (0.0118)
Country-of-origin $\times$ Time FE	✓	✓	✓	✓
Observations	293530	293530	293530	293530

Notes. The table reports the first-stage regression results of the 2SLS regressions of Table 1. LMA-clustered standard errors are reported in parentheses: : \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A2: Effect of LWCs Import Competition on Local Presence of Immigrants, OLS

Dep. var.: $\Delta IMM_{cit}^{pct}$	(1)	(2)	(3)
$\Delta IPW_{i,t}^{China}$	0.0040*** (0.0004)		0.0033*** (0.0004)
$\Delta IPW_{i,t}^{EECs}$		0.0038*** (0.0005)	0.0021*** (0.0004)
$IMM_{c,i,t-1}^{pct}$	-0.0007*** (0.0002)	-0.0007*** (0.0002)	-0.0007*** (0.0002)
$IMM_{c,i,t-1}^{ratio}$	0.2422*** (0.0094)	0.2423*** (0.0094)	0.2422*** (0.0094)
$Ln(NPOP)_{i,t-1}$	0.0007*** (0.0001)	0.0007*** (0.0001)	0.0006*** (0.0001)
Country-of-origin $\times$ Time FE	✓	✓	✓
Observations	293,530	293,530	293,530
R-squared	0.5507	0.5505	0.5508

Notes. LMA-clustered standard errors are reported in parentheses: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A3: Effect of LWCs Import Competition on Local Presence of Immigrants, 2001 LMAs

Dep. var.: $IMM_{cit}^{pct}$	(1)	(2)	(3)
$\Delta IPW_{i,t}^{China}$	0.0036*** (0.0005)		0.0015* (0.0009)
$\Delta IPW_{i,t}^{EECs}$		0.0044*** (0.0008)	0.0034*** (0.0012)
$IMM_{c,i,t-1}^{pct}$	0.2333*** (0.0099)	0.2332*** (0.0099)	0.2332*** (0.0099)
$IMM_{c,i,t-1}^{ratio}$	-0.0005*** (0.0002)	-0.0005*** (0.0002)	-0.0005*** (0.0002)
$Ln(NPOP)_{i,t-1}$	0.0007*** (0.0001)	0.0007*** (0.0001)	0.0007*** (0.0001)
Country-of-origin $\times$ Time fixed effects	✓	✓	✓
Observations	257,676	257,676	257,676
Kleibergen-Paap F stat	135.9	39.37	16.60

*Notes.* The table reports the main estimates obtained using Istat 2001 LMAs instead of 1991 LMAs. LMA-clustered standard errors are reported in parentheses: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .