

WORKING PAPER NO. 738

Timing Matters: Integration Policies and Local Wealth

Mario F. Carillo, Lavinia Piemontese, and Francesco Flaviano Russo

November 2024



University of Naples Federico II



University of Salerno



Bocconi University, Milan

CSEF - Centre for Studies in Economics and Finance DEPARTMENT OF ECONOMICS AND STATISTICS - UNIVERSITY OF NAPLES FEDERICO II 80126 NAPLES - ITALY Tel. and fax +39 081 675372 - e-mail: <u>csef@unina.it</u> ISSN: 2240-9696



WORKING PAPER NO. 738

Timing Matters: Integration Policies and Local Wealth

Mario F. Carillo*, Lavinia Piemontese*, and Francesco Flaviano Russo*

Abstract

This paper examines the impact of migrant integration policies on local wealth, with a focus on the timing of their implementation. Leveraging a unique policy measure that converted centers providing temporary reception for refugees into centers aimed at integrating them in the hosting society, we conduct an event study analysis. Our findings reveal that the timing of integration policy is important: implementation during heightened public attention to immigration negatively impacts local wealth. By contrast, integration interventions implemented during periods of low attention have no impact on wealth. Our findings highlight that the backlash effect of integration policy estimated in the literature might be largely explained by extreme public perceptions of the migration crisis.

Acknowledgments: We would like to thank Giacomo Campagnola for the excellent research assistance. We would also like to thank Diogo Britto, Gema Lax Martinez, Giovanna Marcolongo, Caique Merlo, Paolo Pinotti, Massimo Pulejo and Antonio Schiavone for the helpful comments. All remaining errors are only ours. Lavinia Piemontese ackwnoledges financial support from the MSCA Actions (Project FIBRE 101063844).

^{*} Universitat Autonoma de Barcelona, IPEG and CSEF.

[†] Bocconi University, Unit CLEAN, BAFFI

[‡] University of Naples Federico II and CSEF.

1 Introduction

Wars, pandemics, extreme climatic events, and the resulting humanitarian emergencies have profound impacts on human displacement. These so-called "migration crises" have been shown to have significant adverse economic and political consequences on receiving countries (Bratti et al., 2020; Campo et al., 2024; Henning, 2021; Gamalerio and Negri, 2023). The economic and social burdens these crises place on host countries necessitates responsive migration policies that move from emergency relief to long-term integration strategies as the migration peaks stabilize. Understanding the socioeconomic effects of such policies is therefore crucial. Yet, little is known about how these policies operate and whether their effects change with the phase of the crises. This paper casts light on this issue by examining migration policy mechanisms and impacts across crisis phases.

We exploit a unique integration policy intervention, implemented in the province of Bologna, northern Italy, which changed the purpose of preexisting refugee reception centers. These structures were providing to refugees basic assistance such as food and shelter with the objective of hosting them temporarily. The intervention transformed them by incorporating a range of integration services, including language and vocational courses. These initiatives were designed to facilitate the permanent social and labor market integration of refugees within the host country. The staggered roll-out of the implementation provides useful variation to identify the economic effects of integration policies. In addition, part of these conversions coincided with unexpected migrant waves to Italy's southern coast (far from the study area), which significantly affected citizens' perception of the crisis. We investigate the interaction between local integration policy, as captured by these conversions, and citizens' awareness of the migration crisis.

Our setting offers three main advantages. First, our focus on the conversion to integration centers allows us to identify the effect of the integration policy overcoming any potential confounding effect associated with centers' establishment. Second, migrants hosted in the centers had the refugees legal status without the right, allowing us to estimate the policy's effect without interference from labor market impacts. Third, the staggered timing of the conversions allows us to determine whether the timing of the policy implementation plays a significant role.

We compiled a dataset on the centers' opening and conversion dates, along with their exact locations, and merged this with newly collected monthly data on real estate prices at the neighborhood level, which we use as a proxy of local wealth. Conversions during migration crises may occur in neighborhoods with systematic differences or different trends. To address this, we examine the effect of conversions in an event-study framework with a triple differencein-differences specification, interacting the timing of major waves of refugee arrivals in Italy with the timing of the conversion.

Our key finding reveals that the effects of converting centers from temporary reception to integration centers are strictly linked to the timing of the policy implementation. In particular, the integration policy has adverse effects on real estate prices, and hence on local wealth, only if the conversion occurs during a period characterized by high attention to migration, due to major refugee arrivals. Specifically, we estimate an average loss of about 14,000 euros per apartment on sale—roughly two-thirds of the median annual salary. Consistent with this finding, we observe an average decrease of about 1,000 euros per year in rental prices. Conversely, we find no effect if the conversions are implemented during periods of low attention. This evidence suggests that integration policies for immigrants do not necessarily have negative effects; rather, their impact depends on the timing of their implementation. Our results are robust across different estimation strategies, including the TWFE, the multiple treatment model of De Chaisemartin and D'Haultefoeullie (2024), the stacked DID estimator (Cenzig et al., 2019), and a two-stage Difference-in-Differences model (Gardner, 2022).

Next, we explore the mechanisms underlying these findings. Since the centers' conversions did not involve new centers' establishments, our findings are unlikely due to shifts in housing supply. Moreover, we find no effect of the conversions on the number of migrants hosted in these centers, suggesting that the observed impacts may be driven by shifts in non-migrants' demand for housing. Supporting this hypothesis, we find similar negative effects on real estate prices during periods of heightened attention to immigration, as measured by excessive peaks in Google Trends searches related to immigration. In addition, heterogeneous effects analysis shows that the estimated effects are larger in i) areas with greater preexisting support for right-wing parties and ii higher preexisting immigrant share. These findings suggest that the demand shift is partly due to existing anti-immigrant sentiment, worsened by the migration crisis and the concerns it generates. The estimated effects are quantitatively similar in areas with high or low unemployment, indicating limited support of a labor market competition hypothesis. Taken together, the findings highlight the critical importance of policy timing to

avoid potential reinforcing cycles where heightened visibility of immigration triggers increased adverse economic effects, which in turn might fuel anti-immigrant sentiment, especially in areas with higher immigrant populations.

Contribution to the literature. Our paper contributes to three streams of literature. First, it adds to works on the economic consequences of reception policy, especially on the real estate markets. For instance, Hennig (2021), Buccione and Zurla (2022), and Brulhart et al. (2023) find negative effects of the opening of refugees reception centers of real estate prices, respectively in the city of Berlin, in Italy and in Switzerland. This negative effect is driven by the worsening of neighborhood amenities and the increase of anti-immigrant sentiments. In a related contribution, Sà (2015) finds a negative effect of immigration on house prices in the UK, driven by the displacement of high-income residents. Accetturo et al. (2014) find instead opposite results for Italy, namely higher house prices as a result of a bigger immigrants' share, in line with what Ottaviano and Peri (2006) and Saiz (2007) find for the US, and Sanchis-Guarner (2019) for Spain. This is due to the increased city diversity that has a positive effect on natives' productivity. The evidence for Colombia described by Depretis-Chauvin and Santos (2008) is instead mixed: an inflow of forced migrants due to the *narcos* war determined, in the host cities, both an increase of rental prices at the bottom of the distribution due to the increased demand, and a decrease at the top due to a worsening of crime and public good provision. We contribute to this literature on two dimensions. First, by focusing on the conversion to integration centers — rather than on the opening of reception centers — our research identifies the effect of integration policy without additional effects associated with centers' establishment or changes in the supply of migrant. Second, the staggered introduction allows estimating the economic effects of integration policy in various scenarios of the migration crises and citizens' awareness.

Second, we contribute to the literature on the effects of immigrants dispersal and integration policies. Examples of studies that focus on labor market performance as outcome, include Edin et al.(2003, 2004) for Sweden, and Damm (2009) for Denmark. Other studies focus instead on the effect of dispersal policies on local elections, such as, among others, Dustmann et al. (2019) for Denmark, and Campo et al. (2023), Campo et al. (2024) and Berti Ceroni et al. (2024) for Italy. Dahlberg et al. (2012) study instead the effect of dispersal policies on preferences for redistribution. Dipoppa (2023) emphasizes that, while many integration policies have been shown to induce natives' backlash, integration policies highlighting migrants' vulnerability can foster solidarity and improve migrants labor conditions. We add to this literature evidence on the impact of the evolution of a dispersal policy into an integration policy. Our findings highlight that the adverse economic effect of integration estimated in the literature might be largely explained by extreme public perceptions of the migration crisis.

Third, our focus on attention to immigration speaks to a growing literature focusing on immigration perceptions. For instance, Ajzenman et al. (2023) find that, even if there is no effect of immigration on crime, immigration raises crime-related concerns, which induces higher investments in home security. Hangartner et al. (2019), show that refugee arrival enhances hostility towards migrants. Couttenier et al. (2019) focus on the effect of media coverage of immigrants' crimes on electoral outcomes. Finally, other works studying the effect of proximity to immigrants on immigrants' perception (Dustman and Preston 2001; Mayda 2006; Facchini and Mayda 2009; Card et al. 2012; Bansak et al. 2016; Slotwinski and Stutzer 2019). In this context, leveraging a unique quasi-experimental setting, we explore the pivotal role that attention to migration plays in shaping the influence of integration policy on local wealth. While public attention has been shown to be important in other contexts (Durante and Zuravskaya, 2018), our finding indicate that it is a key dimension which may explain differences in the effectiveness of migrants integration policy.

The rest of the paper is organized as follows: Section 2 outlines the institutional setting and our identification strategy. Section 3 details the data and presents descriptive statistics. Section 4 describes the estimation strategy and presents the results. Finally, Section 5 offers concluding remarks and discusses policy implications.

2 Institutional Setting and Identification

Our identification takes advantage of the interplay of two policies: a national dispersal policy and a local integration policy unique to the Bologna province. This is combined with the exogenous timing of arrivals of refugees to Italy, driven by push factors in their countries of origin. In the following, we will describe these elements in detail. National Dispersal Policy. The dispersal policy was designed in late 2014 by the Ministry of the Interior to manage the steady arrival of asylum seekers, escaping in large numbers from Somalia, Eritrea and Syria, as well as from other Sub-Saharan and Middle-Eastern countries. The vast majority of refugees to Italy, as of 2017, was hosted in temporary reception centers managed by local NGOs under the supervision of local prefectures and funded by the central government.¹ These reception centers were intended to be temporary facilities designed to cope with the emergency, so they provided only basic services. Beyond food and shelter, their guests were helped in the application to obtain refugee status, a process that could be as long as two years, and in which the applicant is not allowed to find a job or to move out. In this context, the Ministry of the Interior assigned each Italian prefecture a specific number of refugees proportionate to the province's population, along with the necessary funds (see Campo et al. 2024). The prefecture in turn was responsible for designing the reception system. Bologna structured its reception by accommodating little groups of refugees in small-capacity facilities, such as rented apartments.

One potential concern is that these reception facilities may be located in geographical areas with specific real estate price dynamics, such as areas on the outskirts of municipalities. Although our identification strategy does not rely on the exogenous location of reception centers, two important points are worth noting. First, interviews with institutional actors involved in the process reveal that the NGO responsible for establishing and managing the centers often had to act on very short notice, typically with only a few days to identify and secure a suitable location. Consequently, the locations of reception centers were dispersed across the entire province. Second, previous studies underscore the quasi-random allocation of reception centers, as shown by Campo et al. (2024, 2023) for Italy overall and by Berti Ceroni et al. (2024) for Bologna specifically. Consistent with these points, Table ??, Panel A, provides evidence that there are no systematic differences in real estate prices between areas with and without reception centers.

Local integration policy. During 2017, a consortium of municipalities in the province of

¹The temporary centers are called CAS, i.e., *Centro Accoglienza Temporanea*.

Bologna (80%) of the municipalities in the province) designed an integration policy, whose aim was to offer more tools to effectively integrate the immigrants hosted in the reception centers. This plan involved a staggered conversion of reception centers into permanent integration centers, which are equipped to provide job placement, language classes and, overall, more integration services, on top of the basic services offered in the reception facilities.² This policy, approved in September 2017, was put in place from January 2018 and suspended in December 2019, in accordance with a national law on immigration and security advocated by the Interior Minister. Interviews with the institutional actors involved in the conversion process allowed us to understand how this policy worked in practice. Specifically, the conversion process required each NGO to gradually convert all reception centers into integration centers. This shift involved an internal reorganization of staff and the preparation of a formal project outlining the additional integration services to be provided to refugees on top of food, accommodation and legal aid. Once the project was approved by the local social services agency the conversion was effective. The timing of each conversion depended solely on the workload within the agency (which also manages other social services), rather than on the local migrant population dynamics. In total, 49 out of 126 reception centers were converted (38.8%). During the implementation of the policy, whenever a center was converted from reception to integration, the NGO in charge informed the residents of the same and nearby apartment blocks about the conversion. This ensures that the policy was observable, as the local population was aware of the change.

Refugees arrivals and Identification. Our empirical framework exploits two sources of variation: (i) the exact date of conversion from reception to integration center, which is the result of the bureaucratic timing described above; (ii) the arrival of refugees to Italy, determined by push factors in origin countries and weather and sea conditions. Our identification strategy relies on the fact that the *interaction* between these two components is exogenous. Since arrivals to Italy are determined by push factors in origin countries and weather and sea conditions, their interaction with the timing of the conversion is plausibly exogenous. In addition, robustness and placebo tests support our identification assumptions, as described in

²These integration centers are called SAI, i.e., (Sistema di Accoglienza e Integrazione).

Sections 3 and 4.

3 Data, Descriptive Statistics, and Balancing Tests

We now describe our newly assembled dataset, which is at the micro-area (a sub-municipal neighborhood) by month level. We combine data on real estate prices, hosting centers location and characteristics (reception or integration), data on migrants arrivals in the country, and Google Trends national searches data.

Real estate prices. We gather residential real estate prices between 2012 and 2020 from the website Immobiliare.it, the most important and widely used Italian platform for real estate advertisement, totaling over 7.8 million ad views per month on the webpage and 2.6 million average mobile app users per month.³

Importantly, the data from Immobiliare.it is posted prices, they are not the price paid for houses or for rents, which are, in general, lower. There is another database from the Ministry of the Interior that actually reports the transaction prices collected from official property registers. We don't use them because they are available at a coarser geographical level and time frequency. Nonetheless, we acknowledge a very high correlation between average posted prices and average transaction prices. Moreover, we believe that there is no reason to expect a change in the difference, between the two sources, as a consequence of our policies. If anything, we should observe a lower transaction price for the same posted price, which goes would make our estimates lower bounds to the true effect. Although everyone can in principle post an add-on the platform, the bulk of advertisers is made by real estate agencies. In fact real estate transactions, in Italy, mostly involve agencies (85.9% according to Reopla, a BIG data company specialized in the Italian real estate market).

Data are aggregated at the micro-area level, a rather fine geographical level, for areas that typically comprise neighborhoods. In our study setting, i.e., the province of Bologna, there are a total of 293 such areas, located in 55 municipalities. For the city of Bologna itself, we have

³There is another, less important, Italian internet platform for real estate advertisement, called Casa.it, with fewer accesses, fewer users and fewer ads, that we do not consider since most ads on Casa.it are cross-posted also in Immobiliare.it.

34 micro-areas. Prices are available at the monthly frequency. We focus on the period starting in January 2012 and ending in December 2020. We have price data by residential real estate type: apartments, penthouses, villas, whole buildings, rural dwellings. Not all types are on the market in all areas and all months, and some type is not indeed present in the area (rural dwellings in the Bologna city center, for instance) except for apartments. In our analysis, we consider weighted average prices over all real-estate types with weights equal to the number of web-page ads. The bulk of our results, however, are driven by residential apartments.

The median sale price per square meter, across all micro-areas and years, is 1687 euros (average 1782 euros). For what concerns monthly rents, the median is 7.5 euros per square meter per month (average 7.7 euros). Given an average house size of 93 square meters (computed over all residential real estate in the study area), we are considering houses that sell for a median posted price around 157(k) euros and that are rented for a median of 700 euros per month.

Reception and Integration centers. We collect information on the universe of reception and integration centers located in the province of Bologna from the prefecture and the public agency of human services of Bologna. We observe the exact address of every center, so we can locate them within the micro-area. We have a total of 126 reception centers, covering a total of 75 micro-areas, out of which 49, located in 27 micro-areas, were converted into integration centers by the end of the study period. Moreover, we have information about the opening date, the closing date, if any, and, in case of conversion, the conversion date to integration center. Finally, we observe the maximum capacity of each center, which coincided with the number of hosted immigrants in any given month.

Attention to immigration. We explore two proxies of attention to immigration. Our preferred one is the monthly number of people arriving to the country—not to our study area by sea. In fact, their high visibility and frequent media coverage amplifies public and political awareness. These events are symbolic of broader migration challenges and tend to provoke stronger public reactions. Moreover, spikes in sea arrivals are often framed within a "crisis" narrative, further heightening their salience in public and political debate. As such, fluctuations in sea arrivals can be seen as a reliable indicator of shifting attention toward migration issues. This variable, provided by the Ministry of the Interior, exhibits a median number of arrivals of 1.9k and average of 5k over the years of the conversions (2017-20). We capture high attention with a dummy taking value one if the number of arrivals is above the median. As a second proxy, we use the monthly national-level Google searches of the topic "immigration."⁴. We capture the peak of attention by using a dummy taking value one if searches are above the 90th percentile.

Balance tests. We conduct several tests to check whether there exist pre-determined statistically significant differences in various outcome variables across three distinct groups of areas: (i) areas with at least one reception center versus those without; (ii) among areas with at least one reception center, we compare those with at least one conversion from reception to integration center to those without such conversions; (iii) among the areas with at least one conversion, we distinguish between areas that experienced at least one conversion implemented in a period of high attention to immigration and those that did not. Our outcomes of interest are sale price, rent price, number of advertisements, number of immigrants (all measured in logs), and number of reception centers. These serve as the dependent variables in simple regression models, where the sole regressor is an indicator of the group classifications of areas mentioned above. Standard errors are clustered at the municipality level. We run these regressions over two distinct time periods: the pre-crisis period and the pre-conversion period.

Table 1 presents the results. When comparing areas with at least one reception center to those without (group i) during both the pre-crisis and pre-conversion periods, the only statistical difference pertains to the number of advertisements (Columns 1-3, Panel A of Table 1). Compatibly with the fact that NGOs established reception centers in very short time spans, this evidence suggests that reception centers were opened in areas with greater availability of real estates. Conversely, areas with at least one converted center (group ii) are characterized by higher real estate prices and a greater number of advertisements than those without any conversions (Columns 1-3, Panel B of Table 1). First, this evidence suggests that conversion

⁴According to Google trend documentation, "topics (instead of exact keywords) are generally considered to be more reliable for Google Trends data. They pull in the exact phrase as well as misspellings and acronyms, and cover all languages."

were not targeting poorer or more disadvantages areas. Moreover, as our focus is on the interaction between conversion and attention to migration, this does not represent not a threat to our identification. In fact, when focusing solely on areas that experienced at least one conversion (group iii), we find no significant differences when comparing areas with conversions made during periods of high attention to migration to areas with conversions made in other periods (Columns 1-3, Panel C of Table 1). Lastly, when examining the number of hosted immigrants and the number of reception centers during the pre-conversion period (Columns 4 and 5, Panels B and C of Table 1), the only statistically significant difference observed is in the number of reception centers located in areas with at least one conversion compared to areas that have reception centers but no conversions. All in all, this evidence corroborates the validity of our empirical setting.

4 Estimation and Results

4.1 Empirical Model

Our empirical model is designed to evaluate whether the conversion of reception centers into permanent integration centers influences local wealth, accounting for differences in the attention to immigration as determined by refugees inflows in the country. We employ the following event-study estimation strategy with a two-way fixed effects (TWFE) structure:

$$Y_{it} = \alpha + \sum_{j=-10}^{10} \beta_j \text{conversion}_{it+j} + \sum_{j=-10}^{10} \gamma_j (\text{conversion}_{it+j} \times \text{high attention}_t) + \delta \text{center}_{it} + \eta (\text{center}_{it} \times \text{high attention}_t) + \theta_i + \theta_t + \theta_{qn} + \sigma t_n + \epsilon_{it}$$
(1)

where Y_{it} denotes the outcome of interest, that is the logarithm of the average house sale price or rental in area *i* at month *t*. The variable conversion_{*it*} is a dummy variable equaling one if, in area *i* at time *t*, at least one conversion to a reception center took place. The variable high attention_{*t*} is a dummy variable equaling one if the conversion at time *t* occurred during a period when the number of sea arrivals exceeded the median (computed from 2017, the year of implementation of the first conversion policy). Both conversion_{*it*+*j*} and its interaction with high attention_t are interacted with time-period dummies, referring to 10 periods before and 10 periods after the conversion, allowing us to test for differential pre-trends. We also control for the effect of opening a reception center in area *i* in month *t*, denoted as center_{it}, and its interaction with high attention_t. Finally, the regression includes a comprehensive set of fixed effects at the area, month, and quarter-area levels, denoted as θ_i , θ_t , and θ_{qn} , respectively, along with area-specific time trends t_n .

We primarily focus on the parameter γ_j , the coefficient on the interaction term between conversion_{it} and high attention_t, which identifies the impact of conversions that occurred during periods of higher attention of immigration compared to periods of lower attention, relative to the effect of reception centers in high versus low attention periods. This specification enables us to estimate the effect of the conversion to integration centers according to the attention of immigration controlling for various potential confounding effects.

To validate the TWFE results, consistent with the recent literature, we estimate the model with various methods, including the stacked difference-in-difference model (Cenzig et al., 2019), the two-stage difference-in-difference model (Gardner, 2022), and the multiple treatment model (De Chaisemartin and D'Haultfœuille, 2024). In all cases, we cluster the standard errors at the municipal level, the administrative unit above our unit of observation, thereby adjusting for any arbitrary correlation of the error term across neighborhoods within the municipality over space and time.

4.2 Results

Event Study. Figure 1 presents the results from the estimation of Equation 1. Irrespective of the chosen estimation method, we observe a decrease in real estate sale prices when the conversions to integration centers occur during periods of high attention (top panel of Figure 1a), while no effect is evident in cases of conversion during periods with low attention (bottom panel of Figure 1a). The effect peaks approximately 4 months after the conversion and, consistent with the identification assumptions, does not exhibit differential pre-trends. Importantly, as our model includes time fixed effects and the outcome is in logarithms, the estimates indicate differential growth rates of treated versus non-treated units. Consequently, while the effects on growth are absorbed six months or more after the conversion, the overall

effect on the levels of our outcome persists. Although slightly less precisely estimated, we find similar effects on rental prices. Specifically, we document a 10%-decrease of rent prices peaking after about 4 months (Figure 1b).

Overall, our findings show a sustained negative wealth effect due to the conversion of temporary to permanent immigrant reception centers in times of high attention to immigration. The relevance of our findings is underscored by the fact that conversions often entail enhanced integration services, which aim to mitigate the impact of immigrants on local wealth. Indeed, the absence of an effect in cases of conversions made in periods of low attention supports this interpretation.⁵

Triple Difference-in Differences. We estimate the average post-treatment effect using a triple difference-in-differences specification.⁶ The results are summarized in Table 2. Column 1 indicates that the treatment, on average, led to approximately a 6% decrease in sale prices, which translates to a decrease of about 150 euros per square meter. For an average of 93 square meters per house (see Section 3), this amounts to 14(k) euros per apartment, which corresponds to approximately 2/3 of the median annual salary in Italy. Quantitatively speaking, the effect is sizeable. Column 2 of Table 2 shows limited effects on the number of advertisements, which serves as a proxy for the supply of housing, in turn indicating the relevance of the hypothesized demand channel as main driver of the empirically estimated effect. Column 3, in line with the hypothesis, reveals a negative and statistically significant effect of the conversion in periods of high immigration attention on rent prices, of approximately 4%. Given a median rent of 750 euros per month, the effect amounts to roughly 1000 euros per year, which is again substantial, especially because residential leases typically last 8 years and are seldom renegotiated. Finally, Column 4 of Table 2 indicates not significant and minimal effects on the number of migrants in the centers, suggesting that our estimates are not influenced by changes in the number of individuals hosted in the facilities due to conversions during times of high attention.

⁵The higher extent of integration services involved in the integration reception system are among the reasons why the estimated negative effect bounces back after few periods, although we cannot be sure about the exact channels.

⁶Specifically, we estimate the model: $Y_{it} = \alpha + \beta \text{PostConversion}_{it} + \gamma (\text{PostConversion}_{it} \times \text{high attention}_t) + \delta \text{center}_{it} + \eta (\text{center}_{it} \times \text{high attention}_t) + \theta_i + \theta_t + \theta_{qn} + \sigma t_n + \epsilon_{it}$. Where PostConversion is a dummy variable taking the value one from the time a conversion occurs.

Mechanism and Heterogeneity. To further investigate the importance of the attention to immigration, we use an alternative measure in the triple difference-in-differences framework, namely a dummy variable that takes the value one if Google Trends searches related to the topic "immigration" exceed the 90th percentile. The results are presented in Table 3. Remarkably, the findings align closely with those obtained using the number of arrivals (Table 2). This consistency lends support to our hypothesized mechanism.

We also perform several heterogeneity analyses to further study the empirical determinants of the estimated effect. Since the model of Equation 1 involves a high numbers of controls, which might limit variation substantially, we opt for sample splits. Results are reported in Table 4. The first sample split refers to the level of unemployment, as we expect to see stronger effects of an inflow of refugees, everything else equal, where there is more fear of labor market competition which could spur anti-immigration feelings. Moreover this is relevant for our experimental design because the conversion to a permanent reception centers implies also, in most cases, the possibility to start looking for jobs, since the permanent centers do offer job placement services. When restricting to cities with high unemployment (above the median empirical level, obtained through 2011 census data from the Italian Statistical Institute), we find the same empirical results for the post-conversion period, but we also have negative effects before, which stress that those cities were indeed experiencing a real estate prices drop as a consequence of the unemployment. The results are thus inconclusive.

Second, as expected, we find that the results are driven by municipalities with high immigrants' shares (above the median ratio of immigrants to resident population in 2011). In line with the relationship between immigration share and immigrants perceptions highlighted in the literature (see Ajzenman et al. (2023), Hangartner et al. (2019) and the references reported in the introduction), our evidence could be interpreted as driven by anti-immigrants' sentiments.

The last heterogeneity that we exploit is with respect to ideology, taking voting shares for right-wing and xenophobic parties in 2013, before the policies, to perform a sample split at the median empirical value. We find a slightly larger effect when restricting at municipalities with high voting shares for right-wing parties. Given that the political platforms of rightwing parties, in Italy, typically emphasize "Natives first" policies, and given the presence of openly xenophobic parties, this finding suggests an effect in case of a stronger, pre-existing, anti-immigrant sentiment.

Overall, this heterogeneity analysis suggests that changes in residential household demand were not driven by labor market dynamics. Instead, the evidence indicates a worsening of anti-immigration sentiment resulting from the immigration crisis. In this context, the timing of integration policy implementation is critical, as it may help prevent reinforcing cycles where heightened visibility of immigration triggers adverse economic effects, further fueling anti-immigrant sentiment—effects that ultimately harm immigrant populations.

5 Conclusion

This paper uncovers the importance of the moment of the implementation of a policy plays on its economic effects. By looking at migrant reception policies, we provide a novel empirical analysis of how local wealth is influenced by the timing of converting temporary refugee shelters into permanent integration centers. Our study leverages a unique policy measure implemented in the province of Bologna and employs an event study approach to assess the impact on local real estate markets.

We find that the conversion of refugee centers during a major migration crisis has negative consequences for local wealth, as evidenced by declines in house prices. In contrast, conversions carried out in advance, before the onset of such crises, do not result in negative economic impacts. This suggests that immigration policies should be proactive and anticipatory rather than reactive and hasty to avoid potential backlash from native residents and to foster social cohesion.

These findings have important implications for policymakers and practitioners managing migration flows and integrating refugees into host communities. In light of recent humanitarian crises, which have posed significant challenges to governments worldwide, our research underscores the necessity of timely and well-planned integration policies. Effective migration policies can mitigate social tensions and promote harmony between native residents and newcomers.

Furthermore, our results highlight the impact of political discourse on migration. When

political parties use immigration as a tool to attract attention, it can heighten public awareness of immigration issues, which may inadvertently induce adverse effects on integration policies during migration crises. This highlights the importance of political parties taking clear and responsible positions on migration in their manifestos and electoral campaigns. Clear, informed, and transparent discourse can help build public trust and guide effective policy-making.

In conclusion, our study emphasizes the critical role of timing in the implementation of integration policies and offers valuable insights for enhancing the economic and social outcomes of migration management.

6 Exhibits

	(1)	(2)	(3)	(4)	(5)			
	(log-) price sale	(log-) price rent	$(\log-)$ n. ads	(log-) n. migrants	n. reception centers			
Panel A: Comparison between areas with and without centers								
pre-crisis (2012-2013)	0.014	0.027	1.206^{***}					
	(0.031)	(0.020)	(0.240)					
pre-conversion $(2014-2017)$	0.045	0.028	1.156^{***}					
	(0.030)	(0.022)	(0.231)					
Panel B: Comparison between areas with and without conversions having at least a center								
pre-crisis (2012-2013)	0.333^{***}	0.186^{**}	1.908^{***}					
	(0.102)	(0.069)	(0.476)					
pre-conversion $(2014-2017)$	0.323^{***}	0.209^{**}	1.690^{***}	0.535	0.734^{*}			
	(0.109)	(0.085)	(0.437)	(0.416)	(0.432)			
Panel C: Comparison between areas with and without conversions during high attention having at least a conversion								
pre-crisis (2012-2013)	0.061	0.038	0.249					
	(0.091)	(0.048)	(0.494)					
pre-conversion $(2014-2017)$	0.076	0.037	0.113	0.349	0.110			
	(0.088)	(0.060)	(0.447)	(0.306)	(0.217)			

Table 1: Balance Tests

Notes: This table presents balance tests across three groups of areas: (i) areas with vs. without reception centers, (ii) areas with vs. without conversions from reception to integration centers, and (iii) areas with conversions during high vs. low migration attention periods. Outcomes include sale price, rent, advertisements, immigrants, and number of reception centers. Regressions cover pre-crisis and pre-conversion periods with standard errors clustered by municipality. The results confirm reception centers were located in areas with greater real estate availability. Areas with conversions had higher prices and more ads than areas without conversions. But there were no differences between areas with conversions during high vs. low attention periods. The only significant difference was in the number of reception centers between areas with and without conversions.



Figure 1: Wealth, Integration Centers, and the Attention to Immigration: Event Study

Notes: This figure depicts the results of the event study described by Equation 1. The top diagram of each sub-figure plots the coefficients of the interaction terms between conversion and high attention, i.e., γ_j (Eq. 1). The bottom sub-figure plots the coefficients of variable conversion, i.e., β_j (Eq. 1), depicting the effect of conversion in low attention periods. We consider four different methods: (i) TWFE specification in yellow, (ii) Two-stage DiD in blue, (iii) Stacked DiD in red, (iv) De Chaisemartin and D'Haultfeuille method in green. In Panel (a) the dependent variable is sale price, while in Panel (b) the dependent variable is rent price. All coefficients are plotted along with their 95% confidence bands.

	(1)	(2)	(3)	(4)
	(log-) Sale Price	(log-) 1 + N. Ads	(log-) Rent Price	(log-) $1 + N$. Migrants
Conversion \times high arrivals	-0.0558***	-0.0458	-0.0363***	-0.0425
	[0.015]	[0.080]	[0.013]	[0.091]
Conversion	0.0457^{***}	0.0409	0.0415^{***}	0.1260
	[0.015]	[0.064]	[0.015]	[0.091]
Observations	24,612	24,612	24,612	24,612
Adjusted R-squared	0.555	0.448	0.379	0.933
Mean DV	7.362	3.35	2.02	.534
Number of Municipalities	55	55	55	55
Number of Areas	293	293	293	293

1 abit 2 , 11100 D merene -10 D merene 0 D 0 0 0 0 0 0 0 0 0 0	Table 2:	Triple	Differen	ce-in-I	Differences	Specification
--	----------	--------	----------	---------	-------------	---------------

Notes: Standard errors clustered at the municipality level. All regressions include fixed effects at the area, month, and quarter-neighborhood levels, and neighborhood-specific time trends. The sample is related to the period 2017-2020. Column (1) and (3) use as dependent variable sale and rent prices respectively (both in logarithmic form). Column (2) uses as dependent variable the logarithm of the total number of sale and rent advertisements published in the platform Immobiliare.it. Column (4) uses as dependent variable the logarithm of the migrants hosted in reception centers.

Table 3:	Mechanism:	Attention	Immigration	measured	by Google	Trends

	(1)	(2)	(3)	(4)
	(log-) Sale Price	(log-) 1 + N. Ads	(log-) Rent Price	(log-) $1 + N$. Migrants
Conversion \times high Google trends Immigration	-0.0563***	-0.0864	-0.0257**	0.0036
	[0.012]	[0.100]	[0.010]	[0.108]
Conversion	0.0327^{**}	0.0264	0.0298^{**}	0.0909
	[0.013]	[0.046]	[0.013]	[0.089]
Observations	24 612	24 612	24.612	24 612
	24,012	24,012	0.970	24,012
Adjusted K-squared	0.554	0.448	0.379	0.933

Notes: Standard errors clustered at the municipality level. All regressions include fixed effects at the area, month, and quarter-neighborhood levels, and neighborhood-specific time trends. The sample is related to the period 2017-2020. Column (1) and (3) use as dependent variable sale and rent prices respectively (both in logarithmic form). Column (2) uses as dependent variable the logarithm of the total number of sale and rent advertisements published in the platform Immobiliare.it. Column (4) uses as dependent variable the logarithm of the migrants hosted in reception centers.

	(log-) House Prices						
	high unempl.	low unempl.	high imm	low imm	high right support	low right support	
Conversion x high attention	-0.0585^{***} (0.0191)	-0.0544^{*} (0.0328)	-0.0572^{***} (0.0159)	-0.0447 (0.0280)	-0.0585^{***} (0.0174)	-0.0541 (0.0345)	
Conversion	0.0495^{**} (0.0206)	0.0381^{*} (0.0223)	0.0408^{**} (0.0194)	0.0450^{*} (0.0232)	0.0464^{**} (0.0204)	0.0478^{*} (0.0246)	
Observations Number of ID Adjusted R-squared	$ 10920 \\ 130 \\ 0.628 $	$11256 \\ 134 \\ 0.466$	$11004 \\ 131 \\ 0.587$	$11172 \\ 133 \\ 0.531$	$ 11088 \\ 132 \\ 0.567 $	$ 11088 \\ 132 \\ 0.563 $	

Table 4: Heterogeneity Analysis

Notes: Unemployment high (low) refers to a sample restriction to cities with unemployment above (below) the cross-sectional median value in 2011. High (low) immigration refers to a sample restrictions to cities with immigration shares above (below) the cross sectional median in 2011. High (low) population refers to a sample restrictions to cities with population above (below) the cross sectional median in 2011. High (Low) Right support refers to municipalities with votes for right-wing parties in the 2013 national political elections above (below) the cross sectional median

References

Accetturo, Antonio, Francesco Manaresi, Sauro Moccetti and Elisabetta Olivieri. 2014. "Don't Stand so Close to Me: The Urban Impact of Immigration". *Re*gional Science and Urban Economics 45: 45-56.

Ajzenman, Nicolas, Patricio Dominguez and Raimundo Undurraga. 2023. "Immigration, Crime and Crime (Mis)Perceptions". *American Economic Journal: Applied Economics*, forthcoming.

Bansak, Kirk, Jens Hainmueller, and Dominik Hangartner. 2016. "How Economic, Humanitarian, and Religious Concerns Shape European Attitudes Toward Asylum Seekers". *Science* 354(6309): 217–222.

Berti Ceroni Carlotta, Lavinia Piemontese, Giovanni Prarolo, and Antonio Schiavone. 2024. "Settlers and Seekers: Proximity to Immigrants and Individual Voting Behaviour". No 19236, CEPR Discussion Papers.

Bratti, Massimiliano, Claudio Deiana, Enkelejda Havari, Gianluca Mazzarella, and Elena Claudia Meroni. 2020. "Geographical proximity to refugee reception centres and voting". *Journal of Urban Economics* 120, 103290.

Bredtmann Julia. 2022. "Immigration and electoral outcomes: Evidence from the 2015 refugee inflow to Germany". *Regional Science and Urban Economics* Vol. 96, 103807.

Brůlhart Marius, Gian-Paolo Klinke, Andrea Marcucci, Dominic Rohner, and Mathias Thoenig. 2023. "Price and Prejudice: Housing Rents Reveal Racial Animus" CESifo Working Paper 10369.

Buccione, Giulia and Valeria Zurla. 2022. "Welcome to the Neighborhood? Evidence from the Refugees' Reception System in Italy". Working Paper.

Campo, Francesco, Sara Giunti, Mariapia Mendola. 2024. "The Refugee Crisis and Right-Wing Populism: Evidence from the Italian Dispersal Policy". European Economic Review 168: 104826. Campo, Francesco, Sara Giunti, Mariapia Mendola, and Giulia Tura 2023. "Political Backlash to Refugee Settlement: Cultural and Economic Drivers" IZA Discussion Papers 16245, Institute of Labor Economics (IZA).

Card, David, Christian Dustmann and Ian Preston. 2012. "Immigration, Wages, and Compositional Amenities". *Journal of the European Economic Association* 10: 78-119.

De Chaisemartin, Clément and Xavier D'Haultfœuille. 2024. "Difference-indifferences estimators of intertemporal treatment effects". *Review of Economics and Statistics*: 1-45.

Dustmann Christian, Kristine Vasiljeva, and Anna Piil Damm. 2019. "Refugee Migration and Electoral Outcomes". *The Review of Economic Studies* Vol. 86(5), 2025-2091.

Cengiz, Doruk, Arindrajit Dube, Attila Lindner and Ben Zipperer. 2019. "The effect of minimum wages on low-wage jobs". The Quarterly Journal of Economics 134, 3: 1405-1454.

Couttenier, Mathieu, Sophie Hatte, Mathias Thoenig, and Stephanos Vlachos. 2019. "Anti-Muslim Voting and Media Coverage of Immigrant Crimes.", emphReview of Economics and Statistics, forthcoming.

Dahlberg, Matz, Karin Edmark and Helene Lundqvist. 2012. "Ethnic Diversity and Preferences for Redistribution". *Journal of Political Economy* 120(1): 41-76.

Damm, Anna P. 2009. "Ethnic Enclaves and Immigrant Labor Market Outcomes: Quasi-Experimental Evidence", *Journal of Labor Economics* 27(2): 281-314.

Depretis-Chauvin, Emilio, and Rafael J. Santos. 2018. "Unexpected Guests: The Impact of Internal Displacement Inflows on Rental Prices in Colombian Host Cities". *Journal of Development Economics* 134: 289-309.

Dipoppa, Gemma. 2023 "When Migrants Mobilize Against Labor Exploitation: Evidence from the Italian Farmlands." SSRN 4562386.

Durante, Ruben and Ekaterina Zuravskaya. 2018. "Attack When the World is Not Watching? US News and the Israeli-Palestinian Conflict". *Journal of Political Economy* 126(3): 1085-1133.

Dustmann, Christian and Ian Preston. 2001. "Attitudes to Ethnic Minorities, Ethnic Context and Location Decisions". *The Economic Journal* 111(470): 353-373.

Edin, Per-Anders, Peter Fredriksson and Olof Aslund. 2003. "Ethnic Enclaves and the Economic Success of Immigrants-Evidence from a Natural Experiment", *Quarterly Journal of Economics* 118(1): 329-357.

Edin, Per-Anders, Peter Fredriksson and Olof Aslund. 2004. "Settlement Policies and the Economic Success of Immigrants", *Journal of Population Economics* 17: 133-155.

Facchini, Giovanni and Anna Maria Mayda. 2009. "Individual Attitudes Towards Immigrants: Welfare-State Determinants Across Countries". *Review of Economics and Statistics* 91(2): 295-314.

Gamalerio, Matteo, and Margherita Negri. 2023. "Not welcome anymore: the effect of electoral incentives on the reception of refugees". *Journal of Economic Geography*, 23(4), 901-920.

Gamalerio, Matteo, Mario Luca, Alessio Romarri, and Max Viskanic. 2023. "Refugee reception, extreme-right voting, and compositional amenities: Evidence from Italian municipalities". *Regional Science and Urban Economics* Volume 100.

Gardner, John. 2022. "Two-stage differences in differences". arXiv preprint arXiv:2207.05943.

Hangartner, Dominik, Elias Dinas, Moritz Marbach, Konstantinos Matakos, and Dimitrios Xefteris. 2019. "Does Exposure to the Refugee Crisis Make Natives More Hostile? *American Political Science Review* 113: 442–455.

Hennig, Jakob. 2021. "Neighborhood Quality and Opposition to Immigration: Evidence from German Refugee Shelters". *Journal of Development Economics* 150: 102604.

Jasny Johannes and Becker Tilman. 2020. "Refugees welcome, but not in my backyard? The impact of immigration on right-wing voting: evidence from Germany". *IZA Journal of Development and Migration* Vol. 11(1), 1-20.

Mayda, Anna Maria. 2006. "Who is Against Immigration? A Cross-country Investigation of Individual Attitudes Toward Immigrants". *Review of Economics and Statistics* 88: 510-530.

Ottaviano, Gianmarco I. P., and Giovanni Peri. 2006. "The Economic Value of Cultural Diversity: Evidence from US Cities". *Journal of Economic Geography* 6: 9-44.

Pettrachin Andrea, Lorenzo Gabrielli, Jisu Kim, Sarah Ludwig-Dehm, and Steffen Pötzschke. 2023. "Did exposure to asylum seeking migration affect the electoral outcome of the Alternative für Deutschland in Berlin? Evidence from the 2019 European elections". Journal of Ethnic and Migration Studies 49(2), 576–600.

Sà, Filipa. 2015. "Immigration and House Prices in the UK". *The Economic Journal* 125(187): 1393-1424.

Saiz, Albert. 2007. "Immigration and Housing Rents in American Cities". Journal of Urban Economics 61(2): 345-371.

Sanchis-Guarner, Rosa. 2019. "Decomposing the Impact of Immigration on House Prices". Working paper.

Slotwinski, Michaela and Alois Stutzer. 2019. "The Deterrent Effect of an Anti-Minaret Vote on Foreigners' Location Choices". *Journal of Population Economics* 32: 1043-1095.

Steinmayr Andreas. 2021. "Contact versus Exposure: Refugee Presence and Voting for the Far Right". *The Review of Economics and Statistics* 103(2): 310-327.

Vertier Paul, Max Viskanic, and Matteo Gamalerio. 2022. "Dismantling the "Jungle'': migrant relocation and extreme voting in France". *Political Science Research and Methods* Vol. 1, issue 11.