

Reference Paper for the 70th Anniversary of the 1951 Refugee Convention

The impact of forced migration on the labor market outcomes and welfare of host communities

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Abstract:

Most host countries limit the right of refugees and asylum seekers to work, due to concerns that their economic inclusion would adversely affect the labor market outcomes and welfare of host populations. There is ongoing debate in the academic literature about whether the economic inclusion of forced migrants does in fact have adverse effects on the labor market outcomes and welfare of host populations, either in aggregate or for sub-groups within the host population. This paper summarizes the empirical evidence from so-called “natural experiments” in high-income countries, as well from studies of forced migration in low- and middle-income host countries. The literature highlights the potential gains that may accrue to host populations and host economies when displaced populations participate in host labor markets, particularly in the long term as labor and capital markets adjust. However, the literature also suggests that there are likely to be winners and losers among the host population, and it is often the most vulnerable groups within the host population—informal workers, less-skilled workers, women and youth—that suffer declines in their wages, employment or welfare, particularly in the short term.

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Introduction

Most host countries limit the right of refugees and asylum seekers to work, and are reluctant to ease restrictions. UNHCR estimates that 70 percent of refugees live in countries that restrict their right to work, including both self-employment and wage employment (UNHCR, 2020). Restrictions are motivated by concerns that the economic inclusion of refugees and asylum seekers would adversely affect the labor market outcomes and welfare of host populations, or that formalizing the economic integration of refugees and asylum seekers would act as a disincentive for them to return to their countries of origin (Zetter & Ruaudel, 2016). Public resistance to more inclusive refugee policies is often stronger in countries with high or rising unemployment rates and scarce livelihood opportunities, where forced migrants are perceived to compete directly with host communities.¹ Yet, these concerns are often based on unsubstantiated perceptions rather than empirical evidence, and tend to focus on short run costs rather than long-term benefits arising from the economic inclusion of forced migrants.

There is ongoing debate in the academic literature about whether the economic inclusion of forced migrants does in fact have adverse effects on the labor market outcomes and welfare of host populations—in aggregate or for sub-groups within the host population.² The purpose of this background paper is to review the available empirical evidence, and to distil, where possible, broad evidence-based conclusions. Specifically, the analysis attempts to answer the following questions: What are the overall effects on host populations? Are there ‘winners’ and ‘losers’ among the host population (heterogeneous effects)? How do these effects change over time? And, what are the mechanisms driving these results?

Understanding this evidence is crucial for host governments as they craft their policy responses to the presence of large displaced populations, many in situations of protracted displacement. The literature highlights the potential economic gains that may accrue to host populations and host economies when displaced populations participate in host labor markets, particularly in the long term as labor and capital markets adjust. However, the literature also suggests that there are likely to be winners and losers among the host population, and it is often the most vulnerable groups within the host population—informal workers, less-skilled workers, women and youth—that suffer declines in their wages, employment or welfare, particularly in the short term. These heterogeneous effects can have important implications for social cohesion between forced migrants and host communities, attitudes towards forced migrants, and the broader political economy (World Bank, 2017). Policy responses should therefore aim to maximize the economic benefits arising from the economic inclusion of forced migrants, support the rapid adjustment of

¹ Countries with fewer refugees relative to citizens, stronger economies, or gaps in their labor force tend to provide more expansive rights to work, while countries with more fragile economies that host large numbers of refugees tend to restrict refugees’ access to labor markets (Zetter & Ruaudel, 2016).

² The seminal paper by Chambers (1986) argues that the presence of refugees can have heterogeneous impacts on the host community depending on local conditions and the characteristics of host households. In rural host communities in Africa, for example, he differentiates between surplus farmers (i.e. net sellers of agricultural products), subsistence farmers and agricultural laborers with negligible or no land. He argues that surplus farmers benefit from the cheap labor provided by refugees, but that the effects of cheap labor on poorer households can vary. In settings where land is abundant, poorer households can potentially benefit by employing refugees to expand agricultural production or disengaging their own labor to focus on more profitable livelihood activities. However, poorer households that depend on casual labor may be adversely affected by the presence of refugees who reduce opportunities for work and drive down wages.

capital and labor markets, and mitigate adverse impacts on vulnerable groups within the host population.

Methodology and inclusion criteria

This paper focuses on forced displacement due to conflict, violence, persecution and human rights violations, and excludes displacement due to disasters or development projects. The paper covers internally displaced persons (IDPs), refugees, asylum seekers, Venezuelans displaced abroad, and the impact of their presence on host communities.³

There are numerous ways in which forced migrants can affect the welfare of host communities. In addition to expanding the labor supply (the focus of this paper), forced migrants can directly impact host communities by: (a) increasing demand in consumer markets leading to price increases, with important implications for household welfare;⁴ (b) increasing demand in the housing market leading to increases in rental prices, particularly in low-income areas, benefiting landlords but hurting those who rent;⁵ (c) increasing demand for land and natural resources, with associated risks of environmental degradation; (d) increasing the burden on infrastructure and demand for public services, leading to declines in the quality or access of public services, or possible detrimental impacts on health and education outcomes for host communities; (e) increasing demand for food, which may lead to food shortages and adverse effects on food security in certain settings; (f) increasing the transmission of infectious diseases; and (g) diffusing different social or gender norms, such as norms of gender equality.⁶ Moreover, the presence of forced migrants may lead to perceived or real increases in crime and security threats.

The ways in which governments, aid organizations and the private sector respond to forced displacement can also affect the welfare of host communities. Inflows of aid and aid workers can have several effects: food assistance can affect prices of certain food items;⁷ aid organizations may provide new employment opportunities for the host population; and aid workers may increase consumer demand for particular goods and services. In many contexts, the protracted presence of forced migrants precipitates investments in infrastructure and the expansion of services. While more relevant in middle- and high-income countries, increases in social transfers to refugees or asylum seekers or subsidies to access public services can increase demand in consumer markets (Verme & Schuettler, 2019). A displacement crisis may also attract the entry of new private sector actors.

³ It excludes stateless persons, Palestine refugees, returned refugees, returned IDPs, communities in areas of return, and communities in areas of origin.

⁴ The increase in consumer demand would depend on the size of displaced population, their savings and income levels, transfers or subsidies they receive from aid organizations or government, remittances they receive, and their consumer preferences. The impacts of increases in consumer prices on host communities are analyzed in a number of empirical papers (Alix-Garcia & Saah, 2009; Alix-Garcia et al, 2012). The literature suggests that higher prices can benefit rural households who cultivate enough to sell at market and business owners (who are also net sellers) but are likely to be damaging for consumers (who are net buyers). The literature also highlights the potential implications for local labor markets as higher prices encourage local producers and business owners to expand production.

⁵ See Depetris-Chauvin and Santos (2018) and Rozo & Sviastchi (2020).

⁶ See Miho, Jarotschkin & Zhuravskaya (2020).

⁷ Food assistance is often sold to supplement income or buy preferred goods, leading to increased supply and lower prices of affected goods (Alix-Garcia & Saah, 2010).

Clearly, the overall impact on the welfare of host populations will depend on the interplay of many or all of these mechanisms. However, **this paper focuses only on the economic inclusion of forced migrants and the effects on host communities and host economies**. This includes *de jure* economic inclusion, where forced migrants are permitted to work by law, as well as *de facto* economic inclusion, where forced migrants are not permitted by law to work, but work informally. Even in countries where refugees and asylum seekers are legally permitted to work, their access to formal labor markets is often limited by a multitude of obstacles, including encampment policies, movement restrictions, or bureaucratic hurdles to obtain work permits. Consequently many refugees and asylum seekers resort to working informally. Most host countries have large informal sectors,⁸ where citizens and migrants work irrespective of formal rights and where restrictions on the right to work are not enforced (World Bank, 2017).

The empirical literature concerned with the economic inclusion of forced migrants and the effects on host populations **examines a number of outcomes**, which are summarized in this paper. Primarily, it identifies effects on the **labor market outcomes for host populations** (usually employment and wages), which are directly related to the purchasing power and welfare of host populations. In the Africa region, studies tend to estimate the effects of the expansion in the labor supply on **host household welfare** (measured in terms of income, consumption, or household assets). There are also several studies that examine the impact of forced migrants on **long-term productivity and economic growth**.

To the extent that they are addressed in the literature, this paper also summarizes evidence on the **indirect impacts of the economic inclusion of forced migrants on consumer markets** (only two relevant papers) **and the housing market** (only one relevant paper).⁹ This review excludes the examination of other outcomes such as the effects on the welfare of displaced populations themselves, the effects on the welfare of other migrant groups, as well as broader impacts on host communities in terms of population trends, migration dynamics, environment, food security, health, education, public services, voting behavior, crime, and conflict.

Selected articles published in peer-reviewed journals are included in this review. A small number of discussion papers were also included if they have been published in reputable series by known authors and frequently cited. **Only empirical research** is summarized, but references are also made to theoretical scholarship and systematic literature reviews, where these provide important insights.

⁸ The informal labor market is estimated to account for about one-third of non-agricultural employment in Turkey, two-thirds of the economy in Sub-Saharan Africa, and over three-quarters in Pakistan (World Bank, 2017).

⁹ While not examined empirically in the literature, competition in the labor market may depress wages for native and displaced workers generating income effects in the housing market (Depetris-Chauvin & Santos, 2018).

Broad insights from the voluntary migration literature

Literature on the impact of forced migrants on host labor markets is related to the much larger body of research on the impacts of voluntary migrants on labor market outcomes of native workers, mostly undertaken in high-income countries.

Theoretical framework

Most contemporary economic studies of immigration employ a ‘factor proportions’ approach that considers the effect of immigration on the relative supply of different skill groups within the labor force.¹⁰ A simplified model would involve a single industry producing an output with a production technology that requires a combination of capital and labor of different skill levels (say low-skilled and high-skilled labor). It is typically assumed that immigrants are perfect substitutes for native workers within the same skill group, labor supply is perfectly inelastic (i.e. workers will choose to work at any wage),¹¹ and capital supply is perfectly elastic (i.e. capital flows freely into the economy) (Dustmann, Glitz, & Frattini, 2008).¹² Based on these assumptions, *an increase in the labor supply due to immigration will not affect employment, but will change relative wages if immigrants change the relative abundance of different skill groups in the labor force* (Dustmann, Glitz, & Frattini, 2008). Wages will decline for native workers that have skills similar to those of immigrants, while wages will rise for native workers that have different skills. *If, however, the skill distribution of immigrants is the same as native workers, then immigration will have no effect on either wages or employment of native workers* (Dustmann, Glitz, & Frattini, 2008). In both scenarios, production will expand, i.e. the economy simply grows larger as the supply of labor and capital expand.

In many countries, immigration expands the proportion of low-skilled labor and decreases the proportion of high-skilled workers in the labor force. The model predicts that wages for low-skilled workers will fall.¹³ At the same time, the relative abundance of cheaper, low-skilled labor will induce firms to expand production, requiring them to also make capital investments and hire more skilled workers. Consequently, the model predicts that wages for high-skilled workers will rise. *Average wages are not predicted to fall, and may even increase if inflows are sufficiently high.*¹⁴ If, on the other hand, immigrants expand the relative abundance of skilled labor, then the model predicts that wages for high-skilled workers will fall, while wages for low-skilled workers will rise.

The predictions of the model vary when one or more of the core assumptions are relaxed:

¹⁰ Skills may be defined in terms of educational attainment, occupation, or other dimensions, such as the ability to perform manual or analytical tasks.

¹¹ A vertical labor supply curve.

¹² In a small, open economy, firms can obtain capital at an interest rate set by the international market. Immigration increases the demand for capital, which puts upward pressure on the rate of return, creating an incentive for capital to flow from abroad (or accumulate domestically in the case of large economies) (Blau & Mackie, 2016).

¹³ And, depending on the elasticity of substitution between low- and high-skilled workers (the percentage change in the ratio of low-skilled workers to high-skilled workers in response to a given percentage change in the wages of low-skilled to high-skilled workers), employers may substitute away from capital and skilled labor to unskilled labor.

¹⁴ This is because the surplus accruing to skilled workers will be higher than the loss to unskilled workers, with the difference often referred to as the “immigration surplus” (Dustmann, Glitz, & Frattini, 2008).

- **If capital is not readily available to expand production, i.e. if capital supply is not perfectly elastic.** Evidence suggests that in developed, open economies, capital adjusts quickly to incremental increases in the labor supply due to immigration, i.e. the capital supply is almost perfectly elastic (Dustmann, Glitz, & Frattini, 2008). However, when there are large, sudden inflows of immigrants, there may be delays before capital can be deployed, and efforts to expedite this process may be costly (Blau & Mackie, 2016). In this scenario, firms can't easily expand production in response to an increase in the labor supply and so the ratio of capital to labor (capital intensity) will decline (Rica, Glitz, & Ortega, 2015). *If immigration reduces capital intensity in the short term, then average wages (not only wages of the low-skilled) will fall.*¹⁵ The effect would dissipate in the long term as capital adjusts.
- **If native workers are not willing to work as wages decline, i.e. if labor supply is not perfectly inelastic.** Some native workers will not wish to work if wages decline and will instead choose unemployment. In these circumstances *immigration would increase unemployment among native workers whose wages fall* (Dustmann, Glitz, & Frattini, 2008). The extent to which native workers are sensitive to declines in wages (i.e. the elasticity of labor supply) will determine the scale of adverse effects on wages and employment of host workers (Dustmann, Schonberg, & Stuhler, 2016). The elasticity of labor supply is likely to differ across groups of native workers by skill level and age, among other factors.
- **If immigrants are imperfect substitutes for native workers with comparable skills.** If immigrants and native workers specialize in different occupations and tasks, then they are unlikely to compete in the labor market.¹⁶ In such situations, *most native workers gain from migrant inflows* (Card, 2012), due to complementarities between workers specializing in different occupations and tasks. The same is not necessarily true for earlier cohorts of immigrants who have already established themselves in the labor market. Empirical evidence suggests that new immigrants in a skill group do not affect demand for native workers in the same group as negatively as they affect demand for other similar immigrants (Peri, 2016). Consequently, an increase in labor supply due to immigration will *primarily affect other immigrants already living in the host country* (Dustmann, Glitz, & Frattini, 2008).
- **If migrants and natives cannot be assigned to comparable skills groups based on observed characteristics.** For example, employers may discount the value of overseas qualifications and experience, or language and cultural barriers may prevent migrants from competing for jobs corresponding to their skills and experience. Consequently, on arrival, immigrants often 'downgrade' their occupation in the host labor market, competing for jobs requiring lower skills or less experience. *This will increase competition and adverse labor market outcomes among lower-skilled native workers.* In the long term, immigrants may gain recognition for their qualifications, acquire language skills, or gain local experience required by employers and gradually 'upgrade' their occupations (Ozden & Wagner, 2018).

¹⁵ For example, an expansion in the supply of skilled labor will generate a redistribution of the immigration surplus to both skilled labor and capital if capital and skilled labor are relative complements (Dustmann, Glitz, & Frattini, 2008).

¹⁶ See for example, Ottaviano and Peri (2012) and Manacorda et al (2012).

Many of the early empirical studies on the impact of voluntary migration failed to identify any substantial adverse effects on employment or wages of native workers, leading scholars to explore other adjustment mechanisms. Consequently, **contemporary economic models increasingly take account of potential adjustment mechanisms, in particular the ways in which native workers and firms respond to immigration.**

- **Native workers shift their choices in response to immigration.** Native workers tend to gradually move away from skills, occupations and tasks supplied by immigrants towards those skills, occupations and tasks complemented by them (Peri, 2016).¹⁷ For example, in response to large influxes of low-skilled migrants, native workers may choose to stay in school longer, pursue tertiary study or specialize in tasks that require more advanced knowledge of the local language and culture (often referred to as ‘occupational upgrading’ in the literature). Additionally, native workers may choose to migrate away from locations where their skills are substitutes for those supplied by immigrants, or move into locations where their skills are complements to those supplied by immigrants (Peri, 2016). *This will reduce competition and enhance complementarity between migrants and natives, reducing adverse wage and employment effects* (Peri, 2016).
- **Firms shift their choices in response to immigration.** Firms may choose to change production technologies, selecting a technology that uses more intensively the abundant skill in the labor force (Peri, 2016).¹⁸ For example, in response to low-skilled immigration, firms may choose more manual-intensive production techniques (Peri, 2016). *Doing so would reduce downward pressure on wages by increasing the productivity of the abundant factor* (Peri, 2016), *and may also lead to increases in average wages by producing efficiency gains.* Additionally, firms may choose to change the local output mix, by increasing the production of goods that use more intensively the abundant skill in the labor force. For example, if immigration increases the relative abundance of low-skilled labor then the wages of low-skilled workers will decline—leading to a larger decrease in production costs (and larger increase in profits) in low-skill intensive industries compared to high-skill intensive industries. This would encourage firms to enter low-skill intensive industries, expanding production and increasing the relative demand for low-skilled workers. *This in turn would put upward pressure on unskilled wages in the long term.*¹⁹

The existence of these adjustment mechanisms suggests that *the effects of immigration are likely to vary in the short, medium and long term* (Labanca, 2020).

Labor market institutions can also modify the effects of immigration on labor market outcomes. For example, in high- and middle-income countries, more generous unemployment benefits may increase native job losses. Reduced wage flexibility, due to minimum wage regulations or workplace agreements, is also likely to exacerbate native job

¹⁷ Task and skill supply will respond gradually to relative wages, e.g. through educational choices of natives (e.g. extra years, areas of specialization) or career choices of natives (towards complementary tasks) (Peri, 2016). See for example, Dustmann et al (2013), Peri and Sbarber (2009), Ortega and Verdugo (2014).

¹⁸ See for example, Lewis (2011, 2013); Ottaviano et al (2013).

¹⁹ The key requirement to allow the economy to react through flexibility in its output mix is that there are more traded goods in the economy than there are factors of production (Dustmann, Glitz, & Frattini, 2008).

losses.²⁰ Firing costs, however, may protect native workers from job losses in the short run. Additionally, barriers to firm entry can slow the rate at which employment returns to pre-immigration levels.

The impact of immigration on consumer markets can also affect the labor market—exacerbating or offsetting labor market outcomes for native workers. Immigrants increase demand in consumer markets, which can affect labor markets in two ways. First, increases in consumer demand lead to increases in the demand for labor, as firms expand production in response to stronger consumer demand. This may compound the wage-increasing effects for high-skilled labor caused by an influx of low-skilled migrants. However, the effect on low-skilled labor is ambiguous—an inflow of low-skilled migrants will put downward pressure on the wages of low-skilled workers, while increases in consumer demand will put upward pressure on wages (i.e. the two effects move in opposite directions). Second, increases in consumer demand may result in price inflation, especially in the short run, which reduces real wages. For example, price increases could erode the wage gains for high-skilled workers caused by an influx of low-skilled migrants and could exacerbate the wage declines for low-skill workers (Alix-Garcia & Bartlett, 2015). *The net effect on native workers is not always clear when there are impacts in consumer markets (prices) in addition to impacts in the labor market.*

Finally, **immigrants may create positive externalities** by increasing total factor productivity at the local level (Peri, 2016) with positive effects on economic growth. If immigrants are highly educated or highly skilled, they import knowledge and specialist skills that can foster learning and innovation. If immigrants cluster in more populous, urban areas (as they tend to do) they will increase the density of economic activity (or ‘agglomeration economies’ as they are known), generating efficiencies and cost reductions that drive growth. Moreover, immigrants coming from different parts of the world often bring new ideas and preferences that can lead to a greater variety of goods and services provided locally.

Empirical evidence and limitations

The empirical evidence on the labor market impacts of voluntary migration is covered extensively in several literature reviews (some of which include studies of forced migration).²¹ **There is no clear consensus emerging from these studies on whether voluntary migrants result in substantial positive or negative effects on the labor market outcomes of native workers** (Ozden & Wagner, 2018). Estimates of the effects of immigration on wages and employment of native workers tend to be quantitatively small (Longhi, Nijkamp, & Poot, 2010). The literature suggests that, on average, the impact on native employment is smaller than on native wages, and that impacts are generally smaller in the United States (US) than in other countries (Longhi, Nijkamp, & Poot, 2010). Additionally, labor supply shocks are more easily absorbed in labor markets with more flexible wages—allowing immigrants easier access to the labor market but at lower wages (Ozden & Wagner, 2018). Even where average effects are small, there can be

²⁰ Since immigrants are more likely to work in informal, non-union jobs, where formal labor standards do not apply, restrictive labor standards tend to intensify short-run adverse effects on native employment (Angrist & Kugler, 2003).

²¹ See for example, Friedberg and Hunt (1995), Friedberg (2000), Gaston and Nelson (2002), Longhi et al (2005); Dustmann et al (2008), Longhi et al (2010), Kerr and Kerr (2011), Card (2012), De la Rica et al (2015) focused on Europe, Blau and Mackie (2016), Dustmann et al (2016), Peri (2016), and Ozden and Wagner (2018).

heterogeneous (often larger) effects related to whether immigrants substitute or complement native workers (Longhi, Nijkamp, & Poot, 2010).

The lack of consistency in results also reflects differences in empirical methodologies and several well-documented empirical challenges.²² For example, migrants choose when and where to move to take advantage of better economic conditions and job prospects at their destination, which makes it difficult to establish a causal link between voluntary migration and labor market outcomes.²³ Additionally, responses to immigration by native workers (such as occupational upgrading or migration) have the effect of reducing competition and enhancing complementarity between migrants and natives, thereby reducing adverse wage and employment effects of immigration. Moreover, responses of firms (by changing production technologies or the local output mix) may also mitigate any adverse effects of immigration, by increasing the productivity of or demand for the abundant skill in the labor force.

Relevance for situations of forced displacement

It may not be sensible to extrapolate findings from the voluntary migration literature to situations of forced displacement situations, due to the essential differences between voluntary migrants and the forcibly displaced.

Voluntary migrants can choose whether, where and when to migrate. Voluntary migrants are self-selected individuals, with characteristics that differ from the general population in their country of origin. In general, they tend to be more skilled than the general population in their country of origin (Ozden & Wagner, 2018). Voluntary migrants are able to select destinations with more favorable economic conditions, where they might access better employment opportunities and where their skills might be used more productively. Voluntary migrants are also able to choose the timing of their move in order to optimize overall returns to migration, and giving themselves the opportunity to transfer assets when they migrate.

In contrast, forced migrants are usually compelled to flee quickly in response to unforeseen circumstances and they may have little choice about the timing of their flight. They usually leave behind their assets and flee with little or no savings. Forced migrants also tend to be less “labor market ready” than voluntary migrants given their recent experiences of conflict and displacement (Peri, 2016). Additionally, their choice of destination is usually unrelated to their individual characteristics, economic conditions at the destination, or employment preferences. In fact, most refugee flows occur from fragile, conflict-affected, developing countries to neighboring developing countries.²⁴ In many displacement situations, refugees

²² These studies employ a variety of empirical methodologies. The *spatial correlation approach* exploits the variation in the density of immigrants across regions to identify the causal effects of immigration. A measure of the employment or wage rate of native workers in a given area is regressed on the relative quantity of immigrants in that same area and appropriate controls (Glitz, 2012). The *national skill-cell (aggregate factor proportions) approach*, proposed by Borjas (2003), exploits variation in immigrant flows across education-experience cells on a national level (Dustmann, Schonberg, & Stuhler, 2016). This approach finds more sizable effects of immigration than the spatial approach (Friedberg, 2001). A third specification (“mixture approach”) uses variation in immigrant inflows both across education groups and across regions (Dustmann, Schonberg, & Stuhler, 2016).

²³ For example, if migrants select labor markets with high wage growth, then estimates might suggest immigration leads to wage increases, when it is demand growth that is driving up both immigration and wages (Ozden & Wagner, 2018).

²⁴ At the end of 2019, developing countries hosted 85 percent of the world’s refugees and Venezuelans displaced abroad. Over the last decade, high-income countries have never hosted more than 19 percent of the world’s refugees (UNHCR, 2020)

do not choose their own settlement location, but settle in areas prescribed by the host government,²⁵ and frequently find themselves in less-developed border regions with more constrained labor markets.

Voluntary migration tends to occur at a slower, more regular pace. Gradual inflows of voluntary migrants can be more easily absorbed by host labor markets. In contrast, forced migration tends to occur unexpectedly and rapidly, and often on a large scale, which does not allow labor markets to adjust, at least in the short term (Tumen, 2015).

Receiving countries typically select voluntary migrants based on economic considerations (such as labor market shortages or skills gaps). In many countries, migrants are more educated than native-born individuals (Ozden & Wagner, 2018). Moreover, government policies are often designed to facilitate the economic integration of voluntary migrants (Tumen, 2015). In contrast, refugee-hosting countries typically perceive and treat refugees as temporary (David, Marouani, Nahas, & Nilsson, 2020), and consequently they apply different conditions and rules to their stay. In many countries, refugees and asylum seekers are prevented from entering the formal labor market.

Forced migration literature: Empirical evidence from high-income countries

There are more studies of the effects of forced migration on high-income countries, reflecting the better quality data that are available in these settings. These studies typically exploit a so-called ‘natural experiment’—a sudden, exogenous shift in the labor supply—created by the rapid, large-scale, unexpected flows of forced migrants due to political events in countries of origin. Econometric studies exploit the quasi-experimental regional variation in refugee concentration before and after the start date of the inflows, often using a ‘difference-in-difference’ approach.²⁶ Since forced migration usually occurs suddenly in response to an unforeseen event, the decision to migrate and the choice of destination are usually unrelated (exogenous) to the refugees’ or IDPs’ preferences. Where forced migrants may have exercised some degree of choice—for example by choosing a destination with higher wages or better employment prospects—it becomes difficult to establish a causal relationship between forced migration and labor market outcomes. To address this potential endogeneity, many scholars choose to use an ‘instrumental variable’ approach.²⁷

²⁵ Taking into consideration factors such as proximity to the border with the origin country to facilitate future returns, availability of land, existing humanitarian architecture, and security concerns.

²⁶ A difference-in-difference approach is a statistical technique that mimics an experimental research design using observational data. It involves studying the differential effect of a ‘treatment’ (e.g. an inflow of migrants) on a ‘treatment group’ (the native population in a region that received migrants) versus a ‘control group’ (the native population in a region that did not receive migrants). The difference in outcomes before and after the treatment for the treatment group is then compared to the same difference for the control group.

²⁷ An instrumental variables approach addresses the endogeneity problem by isolating the variation in migrant flows across areas that is unrelated to the outcome of interest (e.g. wages or employment) and unaffected by the unobserved factors that influence wages. It involves choosing an ‘instrumental variable’ that is: (a) correlated with the inflow of migrants to an area (a testable assumption), but (ii) is not correlated with factors that determine the growth of wages or jobs in an area, other than through the inflow of migrants (based on a plausible assumption) (Blau & Mackie, 2016). There are a variety of instrumental variables that have been used in the literature, such as distance to the border of the country of origin or prior refugee/migrant stock in an area (Verme & Schuettler, 2019).

Marinel Boatlift from Cuba to the United States in 1980

The arrival of around 125,000 refugees from Cuba in 1980 increased the labor force in Miami by about 8 percent, and increased the low-skilled labor force in Miami by nearly 20 percent (Borjas & Monras, 2017). Studies reach contradictory conclusions about the effect of the Marinel Boatlift on wages of native workers, but all studies agree that there was *no detectible effect on native unemployment* (Clemens & Hunt, 2019).²⁸

In their recent reanalysis of the Marinel Boatlift, Clemens and Hunt (2019) show that contradictory findings on the wage effects of the Marinel Boatlift can be explained by previously unreported changes in the underlying survey data. There was a sharp increase in the number of black workers with less than a high school education captured in the post-1980 census data for Miami,²⁹ coincident with the Marinel Boatlift but unrelated to it. Black workers with less than a high school education earned much less than non-black workers with the same education level—creating an apparent wage decline among Miami workers with less than a high school education. *The reanalysis with an adjustment for the share of black workers finds little or no discernible wage impact of the Marinel Boatlift.*

The rapid absorption of the Cuban refugees has been attributed to several factors. Card (1990) posits that Miami was accustomed to the economic integration of previous large waves of immigrants in the two decades prior to the Marinel Boatlift, Miami's industry structure was well suited to the influx of unskilled labor,³⁰ and the high concentration of Hispanic residents made it easier for Cuban refugees to integrate into the labor market despite not speaking English. Bodvarsson et al (2008) argues that the Cuban refugees led to stronger consumer demand that had a positive effect on labor demand, offsetting the labor substitution effect of the Boatlift. Peri and Yasenov (2019) argue that several factors facilitated the absorption the Cuban refugees or reduced wage effects including complementarities between Cuban refugees and native workers, increases in consumer demand, firms choosing to change production technologies,³¹ and consequent efficiency gains.

²⁸ Card (1990) finds little effect on wages and employment of non-Cuban workers. Bodvarsson et al (2008) attributes the lack of any wage effect to the strong increase in consumer demand due to the arrival of the Cuban refugees and consequent increase in local demand for labor, which offsets the labor substitution effect of the Cuban refugees. Borjas (2017) examines the wage impact for high school dropouts, which accounted for at least 60 percent of the Cuban refugees, and finds that their wages dropped by 10 to 30 percent. Borjas and Monras (2017) finds that the arrival of the Cuban refugees lowered the wage of high school dropouts, while it raised the wage of workers with a high school education—the unemployment rate of workers with more than a high school diploma also fell significantly. Peri and Yasenov (2019), employing synthetic matching techniques, find no significant effect on wages and employment of non-Cuban high school dropouts. Peri and Yasenov (2019) revisit the work of Borjas (2017), and demonstrate that once a longer pre-trend is introduced and less noisy samples are considered, there is no evidence of a post-1979 drop of Miami wages from the preexisting trend.

²⁹ Due to the arrival of Haitian migrants with less than a high-school education between 1980-1982, and improved census coverage of low-skilled US males already in the US.

³⁰ In the 1970s, Miami had relatively larger textile and apparel industries, and 75 percent of workers in these industries were Cubans. While these industries didn't expand after the boatlift, and the percentage of Cuban workers in these industries remained stable, Card (1990) suggests that the Marinel boatlift Cubans could have taken up low-skilled jobs as prior Cuban migrants moved onto more desirable jobs.

³¹ Peri and Yasenov (2019) referencing Lewis (2004) note that low-skilled Cubans were absorbed by industries that chose more 'unskilled-intensive' technology and less automation (Peri & Yasenov, 2019).

Jewish émigrés from the former Soviet Union to Israel in the 1990s

Almost a million Jewish refugees left the former Soviet Union for Israel following the lifting of emigration restrictions in 1989, increasing Israel's population by 12 percent between 1990 and 1994 (Friedberg, 2001). Even though these 'émigrés' were highly educated and had experience in the labor market (Friedberg, 2001), many ended up employed as unskilled workers (Borjas & Monras, 2017).

Clemens and Hunt (2019) revisit the main studies of the impact of Soviet émigrés to Israel. The seminal study by Friedberg (2001) finds no adverse impact on native wages and employment opportunities after accounting for the possibility that the émigrés choice of occupation in Israel may have been influenced by the relative labor market conditions across occupations. Borjas and Monras (2019), however, find that the immigrants adversely affected the wages of comparable workers, and increased the wages of the least skilled. Clemens and Hunt (2019) dismiss the findings of Borjas and Monras (2019) due to flaws in their econometric analysis.³² They find only slight discrepancies between the seminal study by Friedberg (2001) and their own reanalysis, which suggests *a positive but statistically insignificant effect on native wages*.

Taking a slightly different empirical approach and investigating the effects on the labor market outcomes of natives over time, Cohen-Goldner and Paserman (2004) find a slightly larger *adverse impact on wages but only in the short term*,³³ *the effect dissipating after 5-7 years*. They show that this adverse effect on native's wages is concentrated among low-skilled blue-collar natives, while the wages of white-collar native workers are not affected in either the short- or long-term. This suggests that in the short run it is easier for immigrants to compete with low-skilled natives or that there may be more scope for complementarities between natives and immigrants within high-skill occupations. *They do not find any effect on employment in the short or medium term*.

Repatriation of Europeans and Jews from Algeria to France in 1962

Clemens and Hunt (2019) revisit the main studies of the impact of the on the French labor market of 900,000 people of European and Jewish origin repatriated from Algeria in 1962, when the country won its independence from France. The skill composition of the repatriates was similar to that of French natives, with a slightly larger proportion in skilled occupations (Borjas & Monras, 2017).

Hunt (1992) finds that repatriates had only a small adverse effect on unemployment and wages of native workers.³⁴ Borjas and Monras (2017) also find a small adverse effect on native unemployment after accounting for the possibility that repatriates may have chosen to settle in regions with more favorable economic opportunities. Clemens and Hunt (2019) find consistency between the original analysis by Hunt (1992), the reanalysis by Borjas and Monras (2017), and their own results, *all of which show a small adverse impact on native unemployment*.

³² In particular, the spurious correlation between the instrumental variable (which includes the population size of skill cells in its denominator) and the endogenous variable (wage trends for natives in different skill cells).

³³ A 10 percent increase in the share of immigrants lowered wages in the short run by 1.2 to 5.7 percent.

³⁴ Average annual salaries declined by at most 1.3 percent in 1967 and unemployment increased by at most 0.3 percentage points.

Refugees from the former Republic of Yugoslavia to Europe in the 1990s

Studies of influxes of refugees to European Countries during the Balkan wars suggest that refugees substantially displaced natives in the labor market, though estimates are statistically imprecise. Angrist and Kugler (2003) studied the effect on labor markets in 18 European countries and found an adverse effect on native employment.³⁵ The reanalysis by Borjas and Monras (2017) in seven European countries find adverse effects on native employment and unemployment, but of a smaller magnitude. Clemens and Hunt (2019) find effects only “mildly discordant” with the two prior analyses, i.e. “*an unstable, statistically insignificant effect*” on native unemployment.

Angrist and Kugler (2003) also examine the moderating effect of labor market flexibility (the ease of hiring and firing workers), unemployment insurance replacement rates, and firm entry costs on the employment of native workers. While their estimates are imprecise, they suggest there are more substantial adverse effects on native employment when labor market flexibility is reduced (for example due to high firing costs, minimum wages, and employment protection laws), unemployment benefits are more favorable, and firm entry costs are increased. They argue, therefore, that *there is no empirical support for the view that restrictive labor market institutions insulate native workers from competition with immigrants.*

Portuguese ‘retornados’ in the mid-1970s

The loss of Portugal’s African colonies led to the rapid migration of 600,000 ethnic Portuguese from Mozambique and Angola to Portugal between 1974 and 1976. The ‘retornados’ increased the Portuguese labor force by 15 percent in just three years. The retornados were fairly well educated native Portuguese speakers, which made them reasonable substitutes for the average Portuguese worker (Mäkelä, 2017).

The seminal study by Carrington and de Lima (1996) compares Portugal with Spain and France and finds that, while the *retornados* did cause some short-run unemployment in Portugal, this effect was quantitatively overwhelmed by Europe-wide increases in unemployment beginning in the mid-1970s. The recent reappraisal by Makela (2017), employing synthetic matching techniques and a more extensive dataset, found that the *retornados* had a *significant adverse effect on average labor productivity and wages in the short term, with even larger adverse effects in the long term.*³⁶ *In the short run, the negative wage effect was largest in low-skilled professions.*³⁷ Makela (2017) posits that labor productivity fell in the short term due to declines in the ratio of capital to labor (capital intensity), but can’t explain the more pronounced adverse effects in the long term, since theory predicts that labor productivity would improve in the long term as capital adjusts.

³⁵ An increase in the foreign share of 10 percent would reduce native employment rates by 0.2–0.7 of a percentage point. The IV estimates for men predict that increasing the foreign share by 10 percent would reduce employment by half of a percent in a country where 5 percent of the labor force is foreign. On a per-worker basis, this implies that 100 immigrants in the labor force cost about 83 native jobs, a large effect in levels.

³⁶ Labor productivity declined by 26 percent in the short term (after one year), and 43 percent within a decade.

³⁷ In low-skilled professions (agriculture and construction), the average wage impact was –12 to –30 percent during the 1974–1977 period.

Migration of ethnic Germans from the former Eastern Bloc

Between 1987 and 2001, more than 2.8 million ethnic Germans migrated from central and eastern Europe and the former Soviet Union to Germany, following political changes in the former Eastern Bloc. Glitz (2012) finds that the arrival of ethnic German migrants had a substantial negative effect on the employment of residents,³⁸ but does not find any significant adverse effect on relative wages. He posits that the fact that German labor markets adjust to immigrant inflows through changes in employment rather than wages is possibly due to the strength of unions in Germany, which allow relatively little wage flexibility, at least at the regional level and in the short run.

Flight and expulsion of ethnic Germans from East and Central Europe after the Second World War

At least 12 million ethnic Germans fled or were expelled from East and Central Europe towards the end, and immediately after the Second World War, settling within the redrawn borders of post-War Germany. Expellees were close to perfect substitutes for native workers, since they had been educated in German schools and spoke German.

Braun and Mahmoud (2014) find that the inflow of *expellees considerably reduced employment rates of native West Germans*. Notwithstanding the limited labor market prospects in post-War Germany, *expellees had no effect on native employment if the expellee share did not exceed about 15 percent of the native population*. The results suggest that the West German labor market could absorb some expellee inflow without adverse employment effects on natives, but that absorption capacity was limited.

Spatial dispersal policies applied to refugees in Denmark and Germany

In Denmark, a spatial dispersal policy was in place between 1986 and 1998, which allocated refugees and immigrants from crisis-affected countries to municipalities as public housing became available, without regard to their preferences or economic characteristics. Refugees and immigrants from crisis-affected countries were largely without tertiary educations and spoke little Danish, and most found employment in manual, low-complexity jobs. Exploiting the exogenous distribution of refugees and immigrants from crisis-affected countries across municipalities between 1986 and 1998, Foged and Peri (2016) find that an increase in these immigrants pushed less educated native workers (especially the young and low-tenured ones) to pursue less manual-intensive and more cognitive occupations. Consequently, there was a *positive (or null) effect on native unskilled wages and employment*. The authors argue that enhanced occupational mobility was partly the reason for these results, but complementarity may have also played a role. The wage and specialization effects persist in the long run.

More than a million refugees arrived in Germany in 2014/2015. While refugees were allocated to states based on federal quotas,³⁹ they were allocated to counties based on the availability of communal accommodation, rather than the social and economic conditions in the counties. Exploiting this exogenous variation in the number of refugees per county within

³⁸ For every ten immigrants finding employment, about 3.1 resident workers lose their jobs.

³⁹ Refugees were allocated to states based on state population and tax revenue.

and across states, Gehrsitz and Ungerer (2018) examine the short-run impacts of refugee inflows on the labor market outcomes of native Germans. They find that *refugees are unlikely to have displaced native workers; if anything, the employment prospects of natives appear to have been positively affected*. However, larger inflows of refugees are associated with increases in non-German unemployment, suggesting that refugees have themselves struggled to find gainful employment.

Refugees from Arab Spring countries passing through Italy

Labanca (2020) examines the impact of the temporary presence of refugees in Italy from countries affected by the Arab Spring. In the first six months of 2011, the share of immigrants residing in Italy and originating from the Arab Spring countries of Egypt, Libya, Tunisia and Yemen increased by 23 percent. Most of the Arab Spring immigrants received a permit to work soon after arriving in Italy, enabling them to work in the formal sector. Consequently, in the first two quarters of 2011, the number of resident immigrants from Arab Spring countries who were employed in Italy increased by 36 percent. By the end of 2011, most Arab Spring immigrants had migrated to other European countries that offered better opportunities.

The data show that immigrants are primarily men, and, on average, they tend to be older than and similarly educated to natives. Despite the small difference in educational attainment, there are large differences between the distribution of natives and immigrants by employment status and sector of employment, with immigrants more likely to be employed in agriculture, construction, hotels and restaurants, while natives are more likely to be employed in the public administration, education and other services sectors.

Labanca (2020) finds that *while the short-run effect of migration on overall native employment is insignificant, there are significant and offsetting effects across industries*.⁴⁰ Both the positive and negative employment effects tended to dissipate over time—as immigrants left Italy, native employment gradually converged back to the pre-Arab Spring level in most sectors. *The author does not find evidence of effects on wages of natives, which suggests that wages are rigid in the very short run*.

Forced relocation of Finns after the Second World War

After the Second World War, Finland ceded eastern territories to the Soviet Union and relocated 11 percent of its population. Displaced farmers were allocated to rural locations in proportion to the amount of government-owned land and the size distribution of private farms, with the exception of Swedish-speaking parts of the country that received no displaced farmers. Sarvimaki (2011) finds that *resettlement shocks led to long-run population growth (due to increased internal migration from other areas), industrialization*

⁴⁰ Immigrants from Arab Spring countries had a positive effect on the employment of natives in construction and educational services and a negative effect on employment of natives in wholesale trade, hotels and restaurants. In industries in which employment was negatively affected, on average four natives were displaced for every 100 additional immigrants in a region. In industries in which employment was positively affected, on average, six natives found a job for every 100 additional immigrants in a region. Positive employment effects might be explained by the increase in economic activity and labor demand induced by the Arab Spring migration, which led to the employment of migrants in educational services and construction.

and a substantial positive effect on wages in municipalities that received displaced farmers.⁴¹ These results are attributed to agglomeration economies; the increase in population in resettlement areas was sufficiently large to attract other internal migrants and firms seeking to benefit from a denser and more efficient labor market.

Huguenot forced migration to Prussia in 1685

Hornung (2014) examines long-term impact of the forced migration of French Protestants (Huguenots) from France to Brandenburg-Prussia in 1685. He demonstrates that *textile manufactories in towns hosting a larger share of Huguenot refugees in 1700 achieved higher levels of output and employed more technology in 1802*. The author argues that any productivity gain from immigration during this historical period is most likely to have been caused by direct interpersonal transfers of knowledge and technology to the native population as well as transfers of skills and knowledge from one generation to the next, given that indirect communication (e.g. written and electronic media) was negligible in this period.

Forced transfer of Greek Orthodox from Turkey to Greece in 1923

Murard and Sakalli (2020) examine the long-term impact of the 1923 forced resettlement of 1.2 million Greek-Orthodox citizens of Turkey to Greece in the aftermath of the Greco-Turkish war of 1919-1922. The mass resettlement of refugees increased the host population in Greece by more than 20 percent within a few months. The authors find that in places of resettlement, *refugees contributed to higher industrialization and structural transformation away from agriculture. Places of refugees' resettlement display higher levels of prosperity in 1991 relative to other localities without refugees, including a larger manufacturing sector and higher average earnings*.

Notably, resettlement produced smaller economic gains in places where the local population was predominantly refugees, as well as in municipalities where refugees were segregated into separate villages—suggesting the crucial role of social interactions and knowledge sharing, which were facilitated by the fact that refugees and natives often spoke the same language and shared the same religion. No evidence of negative spillover effects in nearby localities suggests that the results are not driven by the reallocation of economic activity into places of resettlement, but rather by the creation of new activity. The results suggest that long-run benefits in rural localities of northern Greece appear to be *driven by the transfer of new specific knowledge in textiles and the provision of new agricultural know-how by mostly farmer refugees*.

Flight of Jewish professors from Austrian and German universities to the United States

Moser, Voena, and Waldinger (2014) present empirical analysis of the long-term impact of highly educated Jewish scientists, who had fled Nazi Germany and Austria, on scientific innovation in the US. They demonstrate that German Jewish chemists who sought refuge in the US *contributed significantly to increases in US patenting by US inventors after 1933*. The

⁴¹ A ten percentage points increase in the wartime population growth rate increased the long-term income of locals by roughly 9 percent.

analysis indicates that German Jewish émigrés encouraged US invention by attracting new US inventors to the research fields of émigrés, rather than by increasing the productivity of incumbent US inventors. The data suggest that the effects of the German Jewish émigrés on US invention may also have been amplified through the networks of their co-inventors, who became active patentees in the fields of German Jewish émigrés especially after 1940, and continued patenting through the 1950s. Co-inventors of co-inventors of the German Jewish émigrés also increased inventive activity in émigré fields after 1933, and remained substantially more productive throughout the 1950s and 1960s. These patterns suggest that a natural delay in the transmission of knowledge from émigré professors to their US collaborators influenced the timing of the increase in US invention.

Overall insights from the literature on high-income countries

Taken together, the empirical evidence on forced migration to high-income countries suggests the following:

- **Host countries appear to be able to absorb large inflows of refugees into their labor markets with little or no adverse effects on the average wages or overall employment of native workers.** This view is supported by the emerging consensus among researchers who have studied the effect of the Mariel Boatlift in 1980, the mass migration from the former Soviet Union to Israel in the 1990s, and repatriations from Algeria to France in 1962. The lack of any evidence for adverse effects is attributed to several factors including complementarities between native workers and refugees, as well as the impact of large-scale immigration on local consumer markets, which increases labor demand and offsets the labor substitution effect of refugees.
- **In some host countries there is, however, evidence that refugees substitute for host workers with whom they compete directly.** Studies of influxes of refugees to European countries during the Balkan wars suggest that refugees substantially displaced natives in the labor market, though estimates are statistically imprecise. Similarly, the mass migration of ethnic Germans from central and Eastern Europe and the former Soviet Union to Germany from 1987-2001 had a negative effect on employment of native workers. In both these cases, the adverse effects on native employment are attributed to inflexibility in the labor market due to wage rigidities (for example due to the strength of unions in Germany or minimum wage legislation). The flight and expulsion of ethnic Germans from East and Central Europe towards the end, and immediately after the Second World War also had an adverse effect on native employment but only if expellees exceeded around 15 percent of the native population, suggesting that displacement effects may occur when forced migrant flows exceed the absorption capacity of the local labor market.
- **There is some evidence that labor market restrictions may intensify short-run adverse effects on native employment** while reducing the impact on wages, as the study by Angrist and Kugler (2003) suggests. There are likely to be more adverse effects on native employment when labor market flexibility is reduced (for example due to high firing costs, minimum wages, employment protection laws), unemployment benefits are more favorable, and firm entry costs are increased.
- **There is only one study that finds any adverse effects on wages of native workers,** specifically in the case of the migration of ethnic Portuguese from Mozambique and

Angola to Portugal between 1974 and 1976. Unusually, the wage effects in this study become larger in the long run.

- **In some cases, large-scale inflows of forced migrants lead to positive effects on the employment opportunities and wages of native workers.** In Denmark, the arrival of refugees led to increases in unskilled wages and increases in employment, because less-educated native workers were pushed to specialize in less manual intensive, more cognitive tasks, which were more complementary to the manual, low-complexity tasks performed by forced migrants. In Germany, refugee inflows in 2014/2015 appear to have had positive short run effects on the employment prospects of natives. And in Finland, research has demonstrated long-term substantial positive impacts on wages due to the forced relocation of Finns following the Second World War.
- **The impact of forced migration on the labor market outcomes of native workers is likely to vary across contexts** reflecting differences such as: the size of the inflow of forced migrants relative to the local population; the attributes of the forced migrants (skills, education etc.) relative to native workers; the degree of substitutability between low-skilled and high-skilled labor (and possibilities for occupational upgrading);⁴² labor market flexibility, unemployment insurance replacement rates, and firm entry costs; the local industry mix; and refugee resettlement and dispersal policies.
- **The short- and long-term effects of forced migration may differ**, as adjustments in response to large, unexpected flows of forced migrants can take time. For example, the Cohen-Goldner and Paserman (2011) study suggests that adverse impacts on wages in the short term dissipate after 4-7 years.
- **In the long term, the evidence suggests significant positive externalities for host economies.** Forced migration can lead to increases in productivity through the transfers of knowledge and technology to the native population. Forced migration can also lead to higher industrialization and structural transformation away from agriculture, driven by the transfer of knowledge to the native population as well as agglomeration economies. Forced migration may also create positive externalities through innovation and learning. In these ways, forced migration contributes to long-term economic expansion that accommodates the increase in the population. As noted by Blau and Mackie (2016), this puts short-term adjustments and societal costs in a more complete context.

Limitations

Studies of the effects of forced migration in high-income countries may not provide insights that are relevant for low- and middle-income countries, which host the majority of refugees and IDPs.

High-income countries tend to have large, open, well-functioning labor markets, better able to absorb refugees. Labor markets in high-income countries tend to, inter alia, be more efficient at matching job-seekers and employers, have relatively lower rates of unemployment and underemployment, higher rates of labor productivity, better working conditions, and more effective labor market regulations. Additional factors that facilitate the

⁴² If low-skilled labor can be easily substituted for high-skilled labor (i.e. occupational upgrading from informal to formal jobs) then the magnitude of wage effects diminishes.

economic integration of forced migrants in high-income countries include effective resettlement policies (for example, policies that assign forced migrants to locations where they are more likely to find employment, or which provide for integration services such as language classes or job search assistance), the mobility of refugees, and in several cases as noted above, the relatively high skills and education levels of forced migrants.

In contrast, *labor markets in low- and middle-income countries may not have the capacity to absorb displaced populations*. In low- and middle-income settings in particular, forced migrants increase competition for already scarce livelihood opportunities. Additionally, proximity to a conflict-affected country of origin may affect local labor markets in the host country through channels unrelated to the arrival of refugees, such as the disruption of trade and capital flow (Peri, 2016). And in situations of internal displacement, which occur in conflict-affected countries, IDPs may encounter labor markets that have been disrupted due to ongoing conflict.⁴³

Forced migration literature: Empirical evidence from low- and middle-income countries

There is a small but growing body of literature on the labor market consequences of forced migration in low- and middle-income countries.⁴⁴ Episodes of forced displacement in low- and middle-income countries have tended to be understudied due to the lack of quality data (Olivieri, Ortega, Rivadeneira, & Carranza, 2020).

Bulgarian forced migration to Turkey in 1989

Aydemir and Kirdar (2017) examine the labor market impact of the political-driven forced migration of ethnic Turks from Bulgaria into Turkey in 1989. The influx of repatriates led to an increase in the labor force of up to 10 percent in some locations. They find that the influx of forced migrants *increased the unemployment rate of native men,⁴⁵ especially among the youth and those with similar educational attainment to the forced migrants*.

Syrian refugee flows to Turkey since 2011

Impact on employment and wages

The majority of recent empirical analyses of the labor market impacts of forced migration have studied the massive flows of Syrian refugees to Turkey. Until 2016, when Syrian refugees were able to apply for work permits, Syrian refugees were not permitted to work formally and entered Turkey's large informal labor market. Consequently, the vast majority of

⁴³ For example, urban labor markets may be affected by disruptions to agricultural or pastoral activities in conflict-affected rural areas, transport difficulties, and high transaction costs of trade, eliminating previous linkages between rural and urban areas (Alix-Garcia & Bartlett, 2015).

⁴⁴ See for example the literature reviews by Ruiz and Vargas-Silva (2013), Mabiso et al (2014), Tumen (2015), Verwimp and Maystadt (2015), Ruiz and Vargas-Silva (2017), Maystadt et al (2018), Ogude (2018), Becker and Ferrara (2019), Maystadt et al (2019), and Verme and Schuettler (2019).

⁴⁵ For every 10 immigrants that enter the labor market, four natives lose their jobs and five new jobs are created across the cities and towns with a population greater than 10,000 (because roughly of the 10 repatriates who enter the labor force are employed). The effect was stronger in larger cities and towns—in cities and towns with a population between 25,000 and 1,000,000, for every 10 immigrants that enter the labor market, six natives lose their jobs and three new jobs are created.

Syrian refugees in Turkey work in the informal sector, mostly in low-wage jobs in agriculture, construction, manufacturing, and service sectors.

Akgunduz et al (2015) find that the inflow of Syrian refugees into Turkish regions bordering Syria had *no effect on the employment outcomes of Turkish workers*. This is partly explained by declines in net internal migration into refugee hosting regions. Fewer Turks move into regions hosting refugees, while out-migration of Turks from refugee hosting regions is unaffected. The overall decline in net internal migration helps to dampen any adverse effects of refugees on the wages and employment of Turkish workers.

Del Carpio and Wagner (2016) differentiate the impacts in the informal and formal labor markets. *In the informal sector, they find large-scale displacement of Turkish workers,*⁴⁶ across all types of workers irrespective of age, education or gender, with particularly large losses for workers without a formal education. *In the formal sector, consistent with occupational upgrading from informal to formal jobs, they find increases in employment,*⁴⁷ but only for men who have not completed high school.⁴⁸ *Overall, the net impact on employment is negative,*⁴⁹ *concentrated among women and the low-skilled, who drop out of the labor market.* Other groups, in particular medium-skilled workers, experience no net displacement and possibly even small gains. The authors identify two opposing effects on wages. There is a decline in the residual wage (marginal product of labor) for the informal sector, women and low-education workers. At the same time, inflows of refugees cause workers with below average wages to be displaced, thereby increasing average wages of the remaining workers. *Overall, average wages increase for nearly every category of worker, in particular for female, low-education and informal workers.*

Tumen (2016) finds *small informal employment losses for Turkish workers*, with affected men tending to remain unemployed, while affected women tending to leave the labor force. There were very small increases in formal employment, but a net decline in overall employment. The author finds *no significant effect on informal or formal wages*. He suggests that the prevalence of informal employment in the Turkish labor markets coupled with no work permit arrangements for refugees (at the time) amplified the negative effects on labor market outcomes for Turkish workers.

Ceritoglu et al (2017) find *negative effects on employment for Turkish workers, but no wage effects.*⁵⁰ In particular, they show employment losses among informal workers, which were larger for women (who tend to leave the labor force) than for men (who become unemployed). Overall, unemployment increased, while labor force participation, informal employment, and job finding rates declined—women, younger workers, and less-educated workers were most affected. At the same time, formal employment increased slightly, possibly due to increased social services provided to Syrian refugees (and consequent increased employment opportunities) in the region. The authors suggest that the prevalence of informal employment in Turkey amplified the impact of refugees on natives' outcomes.

⁴⁶ Around six natives for every 10 refugees.

⁴⁷ Around three additional natives for every 10 refugees.

⁴⁸ Women and high-skilled natives experience no gains in formal employment.

⁴⁹ For every 10 refugees around two natives are displaced from employment.

⁵⁰ Aksu et al, when they attempt to replicate these results, find that claims of statistical significance virtually vanish when standard errors are clustered at the region-year level. In particular, claims about the negative effect on men's employment in the informal sector and about positive effects on men's employment in the formal sector and on men's unemployment all lose statistical significance (Aksu, Erzan, & Kirdar, 2018).

Esen and Binatli (2017) examine the medium-term effect of Syrian refugees on the labor market and find that Turkish *regions with a high intensity of Syrian refugees have more unemployed people*. Likewise, *Turkish regions with a high intensity of Syrian refugees have lower formal and informal employment*. The authors suggest that *the positive effect on formal employment that is found in earlier studies may not persist in the medium term*. They posit that in the first few years of the crisis, there may have been positive effects on formal employment due to the construction and operation of the refugee camps in the regions bordering Syria. In the medium term, however, the impact of refugees on the labor force changed as they dispersed geographically, and (from January 2016) were able to access work permits.

Aksu et al (2018) find *no adverse effects on overall employment or overall wages of native men*. *In the informal sector, wage employment of men falls, and there is suggestive but not conclusive evidence that their wages decline*, consistent with an increase in the supply of informal labor. *In the formal sector, there is a positive effect on wage employment and wages of men*, which is consistent with an increase in the demand for labor.⁵¹ Overall, there is no effect on employment as the decrease in employment of men in the informal sector is offset by an increase in employment of men in the formal sector. Native men are also shown to shift from wage employment to self-employment and unpaid family work. For native women, there are no adverse effects on wages, but overall employment of native women falls due to a decline in part-time employment. Women who lose their part-time jobs exit the labor market.

Analysis by sector reveals important distributional effects on employment. Turkish workers in the labor-intensive and informal-dominated construction and agriculture sectors are substantially adversely affected.⁵² Turkish workers in the manufacturing and services sectors fare better: jobs generated in the formal sector exceed jobs eliminated in the informal sector, and both men's and women's wages in the formal manufacturing sector and men's wages in the formal services sector increase. Negative effects on wage employment and wages in the informal sector are more pronounced among less-educated and younger workers. The positive effects on wage employment and wages in the formal sector are also stronger for less-educated and younger workers.

Bagir (2018) separately analyze the initial influx of refugees to Turkey's border regions and the subsequent migration of refugees from the border regions to the inner regions of Turkey. While the initial settlement of refugees was unrelated (exogenous) to the economic conditions in destination regions, refugees' subsequent settlement decisions would have been influenced by (i.e. endogenous to) the labor market conditions and job prospects in destination regions. *The primary migration is found to have a negative effect on employment and wages among low-skilled and less experienced Turkish workers*. The decline in wages of informal workers is the main contributor of the negative wage effects. *Secondary migration has no impact on employment but there are negative wage effects for low-skilled and less-experienced workers*. The author suggests that the Turkish economy is able to absorb the additional labor supply when refugees are dispersed across regions.

⁵¹ Increases in prices in the product market and in capital flow to the treatment regions contribute to the rise in labor demand in the formal sector.

⁵² In the construction sector, native men's employment is substantially reduced. In the agricultural sector, women's employment and both men's and women's wages are substantially reduced (an increase of 10 percentage points in the ratio of migrants to natives causes a 15–20 percent fall in agricultural wages for both men and women).

Akgündüz and Torun (2020) investigate changes in the tasks performed by Turkish workers in response to refugee inflows. Overall, refugee inflows *pushed Turkish workers from manual-intensive jobs towards more complex jobs that involve abstract tasks*—either by substituting for Turkish workers in manual intensive jobs or by transforming the mix of tasks performed by Turkish workers. Young and highly educated Turkish workers are more likely to move towards higher-complexity jobs that are complementary to the labor supply of refugees. Lower-educated employees show no significant change in their tasks and also drive the negative effect on native employment. Refugee labor is a substitute for the tasks performed by the lower educated, who are driven out of employment as a result. Their inability to adjust to tasks that are complementary to Syrian labor inputs may explain why their employment outcomes are negatively affected. These findings imply substitutability between refugee labor supply and manual tasks (and capital) and complementarity between refugee labor supply and abstract tasks.

Altindag et al (2020) find that refugees increase competition for low-wage jobs and substitute for Turkish workers in the informal labor market.⁵³ Those who stay employed experience a 0.4 percent marginal *increase in their wages and work longer hours*.

Impact on productivity and long-term economic growth

Akgündüz et al (2018) examine the impact of Syrian refugee inflows on firm entry and performance. While total firm entry does not seem to be significantly affected by inflows of Syrian refugees, the refugee influx does lead to a *substantial increase in the number of new foreign-owned firms in refugee-hosting regions*. The authors find some evidence that the increase in new foreign-owned firms is *driven by sectors most likely to benefit from low-skilled labor*. There is also some indication of *growth in gross profits and net sales in refugee-hosting provinces*. The authors suggest that the influx of refugees creates opportunities for new firms due to both the increased demand for goods and services, as well as the increased supply of low-skilled labor and consequent decreased production costs.

Akgündüz and Torun (2020) find a *decline in the capital intensity (ratio of capital to labor) and investment rates (percentage increase in capital invested) of manufacturing firms in refugee hosting regions*.⁵⁴ Firms reduced their capital use in refugee-hosting regions, which suggests a substitutability between refugee labor supply and capital.

Altindag, Bakis and Roza (2020) do not find any significant effect on production figures reported by firms,⁵⁵ but strong evidence of a positive effect on production proxies such as oil and electricity consumption, which correct for firms' underreporting and account for informal economic activity. These effects are stronger for smaller firms and those in construction and hospitality. Refugee inflows also had a positive impact on firm creation. A significant proportion of new firms were established by Syrians partnering with Turkish citizens to overcome barriers to market entry. Overall, the findings suggest that larger refugee inflows have a *positive impact on local businesses and firm creation, which are largely concentrated in the informal economy*. The authors suggest several mechanisms for these results

⁵³ Among Turkish male workers, a 1 percentage-point increase in refugees decreases the likelihood of overall employment by 0.3 percentage points, driven by the loss of employment in the informal labor market.

⁵⁴ This effect is larger and more precisely estimated for smaller firms than for medium and large firms.

⁵⁵ Reported sales and gross output for accounting purposes.

including: the likelihood of permanently leaving their original location might have induced refugees to bring most of their accumulated wealth to the host country and to invest it there; fixed costs associated with initial resettlement, such as housing and setting up a new business, might be contributing to the positive shock, especially in the construction sector; aid provided to refugee settlement locations by the Turkish government, international governments, and NGOs is mainly supplied by local firms, which might contribute to increased firm output; and reduced labor costs due to the informal hiring of refugees might contribute to the local production boom in refugee hosting areas.

Second order impact on consumer market

Balkan and Tumen (2016) estimate that the *general level of consumer prices in Turkey declined by approximately 2.5 percent*. The authors argue that the informal labor market is a mechanism through which the refugee inflows generate price declines. Syrian refugees supply inexpensive informal labor generating labor cost advantages in the informal labor-intensive sectors. Prices in informal labor-intensive sectors decline by approximately 4 percent, while prices in formal labor-intensive sectors remain unchanged.

Tumen (2016) finds that the entry of Syrian refugees into the informal labor market in Turkey generated labor cost advantages in the informal labor intensive sectors, which led to *declines in consumer prices* of the items produced in these sectors relative to the ones produced in formal labor intensive sectors.

Overall insights from the integration of Syrian refugees into the Turkish labor market

Overall, the empirical evidence presented in these studies of Syrian refugees in Turkey suggest that:

- **Syrian refugees substitute for Turkish workers in manual-intensive jobs in the informal sector, leading to adverse employment effects for competing workers.** Women, low-skilled workers, less-educated workers, and younger workers appear to be most vulnerable to the loss of employment. The evidence presented by Bagir (2018) suggests that this effect may be limited to the primary migration of refugees to the border regions of Turkey, and that secondary migration has no effect on employment, because the economy is better able to absorb the additional labor supply when refugees are dispersed across regions.
- **Most studies find positive employment effects in the formal sector, but there are some contradictory findings** (e.g. Esen and Binatli, 2017). Employment gains appear to be more pronounced for less-educated and younger workers.
- **The estimated net impact on employment appears to be negative across most studies**, however there are studies that find no significant effects overall (e.g. Akgunduz et al, 2015).
- **Most studies find no overall effect on informal or formal wages.** Some studies suggest that wages in the informal sector decline, while wages in the formal sector increase. There is some evidence that average wages might increase, possibly due to the displacement of workers with below-average wages from the informal sector.

- **There is evidence of occupational upgrading among Turkish workers, which reduces adverse impacts on native employment and wages.** Young and highly educated Turkish workers transition from manual-intensive jobs towards more complex jobs.
- **There are substantial positive effects on firm creation and business profitability in refugee-hosting areas,** possibly driven by sectors (construction, hospitality) benefiting from low-skilled labor, and largely concentrated in the informal sector. At the same time firms reduce their capital use in refugee-hosting regions, suggesting that labor provided by Syrian refugees is a substitute for capital use in production.
- **Consumer prices in informal labor-intensive sectors have declined, linked to the expansion of labor supply in the informal sector.**

Syrian refugee flows to Jordan and Lebanon since 2011

Jordan

Between 2010 and 2016, nearly 1.3 million Syrians refugees settled in Jordan. In 2016, Syrian refugees represented about 9 percent of the Jordanian labor force (Fallah, Krafft, & Wahba, 2019). Until 2016, Syrian refugees were not legally allowed to work in Jordan, however many found work in the informal sector, mainly in agriculture, construction and food services (Fakih & Ibrahim, 2016). Since 2016, Syrian refugees were permitted to apply for work permits in certain sectors (e.g. agriculture, construction, food, and manufacturing), which typically employ migrant labor (Fallah, Krafft, & Wahba, 2019). Just over 87,000 work permits had been taken up by the end of 2017 (Fallah, Krafft, & Wahba, 2019).

Fakih and Ibrahim (2016) find that Syrian refugees *do not have a significant impact on labor market outcomes of natives in Jordan*.⁵⁶ They attribute this result to additional restrictions on firms hiring refugees, refugees being forced to work in the informal sector, tight movement restrictions on refugees located in border regions and camps, and the mismatch between the low-skilled labor supplied by refugees and the jobs available.

Fallah et al (2019) find that, overall, *Jordanians living in areas with high concentrations of refugees have had no worse labor market outcomes than Jordanians with less exposure to the refugee influx*.⁵⁷ Consistent with occupational upgrading, Jordanian workers in areas with high concentrations of refugees experienced a significant increase in job formality, an increase in hourly (but not monthly) wages, and a shift in employment from the private to the public sector. The author posit several factors may have ameliorated any potentially adverse effect of Syrian refugees on the labor market outcomes of Jordanians including: (a) the composition and characteristics of the Syrian refugee population in Jordan (predominantly young and with a higher proportion of female-headed households) which means that their labor force participation is low;⁵⁸ (b) the low take-up of work permits by Syrian refugees,⁵⁹

⁵⁶ The analysis is based on employment data drawn from the 'Employment Survey' implemented Jordan's Department of Statistics.

⁵⁷ This result hold across unemployment, employment, characteristics of employment (formality, occupation, open sector, health and human services sector, private sector), hours, and wages.

⁵⁸ Only 45 percent of men and 4 percent of women are in the labor force.

⁵⁹ By the end of 2017 only 87,141 work permits to Syrians were issued out of 200,000 available permits.

which means that few Syrians are competing in the formal labor market; (c) Syrians mainly competing with non-Syrian economic immigrants in the informal sector; (d) the inflow of foreign aid, which may have created labor demand among Jordanians; and (e) the increase in demand for public services, in particular education and health, which resulted in the Jordanian government increasing the provision of those services, which in turn increased the demand for workers (almost exclusively Jordanians) in those sectors. The results suggest that allowing refugees to work legally, and complementing legal work opportunities for refugees with aid and trade opportunities may yield offsetting effects for natives' labor market outcomes.

Overall, these studies suggest *limited impacts of Syrian refugees on the labor market outcomes of Jordanian workers*.

Lebanon

Over a million Syrian refugees had registered in Lebanon by early 2016. Syrian refugees are estimated to have increased the labor force by as much as 35 percent (World Bank, 2015). The large majority of Syrian refugees in Lebanon have very low levels of educational attainment.⁶⁰

David et al (2019) find an *adverse effect on unemployment and labor income, for low- and medium-skilled Lebanese workers*, due to increased competition from Syrian refugees. *High-skilled workers are unaffected (or even slightly positively affected)* by the arrival of Syrian refugees, due to the complementarity of different skill groups in production. Additionally, low- and medium- skilled workers have more limited out-migration opportunities than high-skilled workers, and are less likely to be able to escape deteriorating employment conditions. Foreign workers, paid less than Lebanese workers, are the main competitors of Syrians in the labor market.

Internal displacement in Colombia

Studies in Colombia provide insights into the impact of internal displacement on residents in receiving municipalities. Unlike refugees, IDPs have citizenship and economic rights that can assist their economic integration, and their settlement choices are less restricted. Almost by definition, they live in countries affected by conflict, which affects the ability of labor markets to absorb new entrants.

Bozzoli et al (2012) find that inflows of IDPs *increase self-employment rates in the services sector in receiving municipalities*. Hourly income for the self-employed declines sharply, but there is no effect on income from wage employment. Two possible mechanisms drive these results: unskilled IDPs have no other opportunity to participate in the labor market than being self-employed in the services sector; and self-employment in Colombia usually occurs in the informal sector where wages and income are flexible.

Calderón-Mejía and Ibáñez (2016) find that influxes of IDPs resulted in *large adverse effects on wages and employment opportunities for residents of host cities, particularly low-skilled*

⁶⁰ About 87 percent of Syrian refugees in Lebanon (in 2014) had less than a primary education, 8 percent had completed secondary education and only 4.5 percent had tertiary qualifications (Verme, Gigliarano, Wieser, Hedlund, Petzoldt, & Santacroce, 2016).

workers and those in the informal sector. In Colombia, a high minimum wage prevents firms from employing IDPs at lower wages in the formal sector, and so IDPs are forced to find work in the informal sector, depressing wages (i.e. the minimum wage creates a below-equilibrium demand for workers in the formal labor market, and the excess supply of workers enter the informal labor market) (Caruso, Canon, & Mueller, 2019).

Morales (2017) expands on the work of Calderón-Mejía and Ibáñez (2016) by looking at a wider range of receiving municipalities and allowing for long-run effects. The analysis suggests that that *influxes of IDPs lead to a short-run negative impact on wages, which is more pronounced for women.* In the long run (over five years) *there is no overall impact on wages, probably due to an increase in outmigration of local residents.*⁶¹ However, the negative impact on wages persists for low-skilled women, who are less occupationally mobile, coupled with the fact that IDP women adapt well to new labor markets.

Depetris-Chauvin and Santos (2018) show that *the cheaper labor provided by IDPs is partially absorbed by the construction sector, fueling the construction sector in the richest areas and decreasing rental prices.*

Taken together, these studies suggest that: low-skilled IDPs arriving in Colombian municipalities typically find employment in the informal sector; in the short term there is an adverse effect on wages, particularly for the low-skilled, those in the informal sector and for women; and in the long term, the adverse impact on wages of men dissipates, possibly due to the outmigration of local residents, however the negative effect on the wages of women persist.

Venezuelan migration to Colombia and Ecuador

Caruso et al (2019) estimate the short-term effects of Venezuelan migrants on the wages and welfare of Colombians, demonstrating *adverse impacts on wages in the short term.* Wage declines are attributed to occupational downgrading whereby native workers are only able to find employment in jobs that are below their qualifications.⁶² While immigration does not appear to displace native workers, it does affect labor force participation as some native workers choose to leave the labor force.⁶³ Adverse wage effects are more pronounced for young people, are largely concentrated in urban areas in the informal sector, and are more pronounced for low-skilled men. Overall, the estimates indicate that a 1 percentage point increase in Venezuelan immigration causes a 10 percentage point wage decline among informal sector workers living in urban areas in the short term. Wage effects are worse when considering Venezuelan-born immigration alone, since returning Colombian migrants reduce

⁶¹ In the short run, a 1 percent increase in population increases the rate of out-migration by about 0.2–0.3 people per 100 initial residents.

⁶² Increasing the immigration of Venezuelans by 1 percentage point augments the share of natives employed in non-salaried work by 2 percentage points and those underemployed at work by 3 percentage points.

⁶³ A 1 percentage point increase in the immigration rate over 12 months leads to a 1 percentage point increase in inactivity.

the average wage effect.⁶⁴ The authors also demonstrate that estimated wage losses coincide with increases in poverty rates.⁶⁵

In Ecuador, Olivieri et al (2020) analyze the determinants of the location choices of Venezuelan migrants and how they might affect the labor markets of host regions. They show that, *overall, regions with the largest inflows of Venezuelans have not seen any effects on labor market participation or employment*, compared to regions with fewer inflows, even when restricting the analysis to female workers. However, *young, low-educated Ecuadorian workers in high-inflow regions have been adversely affected in terms of quality of employment and earnings*.⁶⁶ These results suggest that newly arrived migrant workers have found employment mainly in informal jobs, placing the burden of the adjustment disproportionately on the more vulnerable workers in the main host regions.

These studies suggest that Venezuelan migration could have negative impacts on local labor markets in the short run, by depressing wages in the informal labor market (World Bank, 2019). Adverse effects on wages are likely to be concentrated among the low skilled and among young people.

Forced displacement in the Africa region

There are several empirical studies of forced migration in the Africa region that examine labor market impacts in Tanzania, Kenya, Uganda, Rwanda and Sudan. With the exception of the study on Sudan, which estimates the impact of IDP flows into Darfur's urban center, Nyala, *the majority of studies examine the impact of refugees in impoverished, rural settings*. The policy context in each host countries varies. In Tanzania and Kenya, governments have pursued restrictive refugee policies, with refugees confined to camps and not permitted legally to work, while in Uganda and Rwanda, governments have pursued more progressive policies that aim to promote the social and economic integration of refugees and host communities. Unlike the literature discussed in the previous sections, these studies do not attempt to quantify the impact of forced migration on wages or employment. Rather, the analyses of labor market impacts identify changes in the livelihood activities and sources of income of host communities. The studies also examine the effects on household welfare, and infer various mechanisms for these results.

Tanzania

In the early 1990s more than a million refugees from Burundi and Rwanda sought refuge in the Kagera region of northwestern Tanzania, one of the poorest regions of the country (Maystadt & Verwimp, 2014).⁶⁷ Refugees were confined to camps close to the border under

⁶⁴ Returning Colombian migrants are more likely to settle in urban areas away from border areas, and are likely to be better economically integrated due to their family and social networks, making them less likely to compete with displaced Venezuelan for jobs.

⁶⁵ A 1 percentage point increase in the share of Venezuelan immigrants has increased the rate of poverty by 2 percentage points.

⁶⁶ Compared to similar workers in regions with a small inflow of Venezuelans (relative to population), young, low-educated Ecuadorian workers in high-migration regions have experienced a 6 percentage-point drop in the rate of adequate employment, accompanied by a 5 percentage point increase in the rate of informality, and a 13 percent reduction in hourly earnings.

⁶⁷ In 1992 and 1993 approximately 340,000 refugees fled civil strife and killings in Burundi and were accommodated in refugee camps in Tanzania (NCG, 2010), and in 1994 over half a million refugees, mostly

restrictive refugee policies. They were not permitted to travel more than 4 kilometers from the camps and there were restrictions on the types of livelihood activities they could undertake. Notwithstanding these restrictions, it was not uncommon for refugees to work informally as agricultural laborers outside the camps.

Maystadt and Verwimp (2014) find a *positive effect on overall welfare of the host population, which is highly differentiated by occupation*. Those hosts who were self-employed in agriculture benefited from the supply of cheap labor provided by refugees, while agricultural workers gained less due to increased competition in the labor market (coupled with increased prices).⁶⁸ Ruiz and Vargas-Silva (2015) find that Tanzanians *changed economic activities in response to the presence of refugees—those who experienced a higher intensity of the refugee shock were less likely to work outside the household as employees*.⁶⁹ This finding is confirmed by Ruiz and Vargas-Silva (2016), who show that Tanzanians who experienced a higher intensity of the refugee shock *were more likely to work in household ‘shambas’ (cultivation) or care for household livestock and were less likely to work outside the household as employees*. Tanzanians in the vicinity of the camps were particularly less likely to be agricultural employees, suggesting that refugees substituted for Tanzanians who were employed as agricultural workers. Tanzanians engaged in casual work were especially affected by increased competition with refugees for jobs. Many Tanzanians who were casual workers before the refugee shock changed to other activities, including self-employment.

Ruiz and Vargas-Silva (2018) find that *Tanzanian women were less likely to be employed outside the home and more likely to engage in household chores relative to men*.⁷⁰ The effect on Tanzanian women is differentiated by literacy and numeracy skills—women who could read and perform simple written mathematical calculations were more likely to be employed outside the home, while illiterate women were more likely to engage in farming and household chores.

Kofol and Naghsh Nejad (2019) examine the impact of the refugee presence on rates of child labor in the host community. *In the short term, the refugee influx caused rates of child labor to decline*, possibly due to increases in household welfare due to higher agricultural productivity. *Ten years after the influx of refugees, the likelihood of children working in the agricultural sector and performing domestic chores (such as collecting firewood and fetching water) increased*, possibly due to increased demand for agricultural labor and increased competition for firewood.

Kenya

The Kakuma camp complex was established in 1992 to accommodate the growing numbers of refugees from South Sudan and Somalia. The camp complex is situated in the Turkana

Tutsis, fled the Rwandan genocide and sought refuge in Tanzania. Refugees from Rwanda returned in 1996. The majority of refugees from Burundi were repatriated between 2002 and 2009 (NCG, 2010).

⁶⁸ Individuals who were self-employed in non-agricultural activities also gained less than the rest of the population, which is attributed to increased competition due to the entry of more productive entrepreneurs from other regions.

⁶⁹ Additionally, those who worked as employees were more likely to work for the government and be professionals (due to the increase in government and international organization jobs in refugee-hosting areas).

⁷⁰ They posit that this result is due to additional competition for natural resources (firewood and water) and consequent environmental degradation due to the presence of refugees.

region, one of the poorest regions of Kenya. Refugees in Kakuma are not permitted to work outside the camps unless they have special permits.

Alix-Garcia et al (2018) find *positive effects on economic activity and household consumption in the vicinity of the camp*. The authors suggest two mechanisms driving these results. First, the increased availability of new wage employment associated with the camp, particularly for households with secondary education, which dominates the impact of labor competition from refugees. And second, price changes in agricultural and livestock markets that are favorable to local producers, and which create incentives for increased agricultural production. The results show average effects only and mask likely differences (heterogeneity) in impacts relating to gender, age and educational attainment.

Uganda

The Ugandan government has pursued a progressive policy towards the integration of refugees, giving refugees freedom of movement and the right to work, accommodating refugees in settlements resembling rural villages, providing access to land for cultivation, and integrating service provision for refugees and host communities.

Kreibaum (2016) studies the impact of a prolonged presence of Congolese refugees on host communities and finds, overall, *a positive impact on host household consumption*. The author suggests that this may be due to new possibilities to trade and the attraction of new enterprises. While all employment groups can benefit from the increased population in their neighborhood, *some groups benefit significantly less and are vulnerable to losses due to sudden influxes of refugees*, in particular households that compete directly with refugees entering the labor market and households depending on transfers.

Rwanda

In Rwanda, the government pursues an integrative policy that promotes economic and social interaction between refugees and host communities. Officially, refugees are permitted to work, move freely and access public services, but access to employment and freedom of movement are limited by bureaucratic procedures and costs (Bilgili, Fransen, Loschmann, & Siegel, 2020).

Loschmann et al (2020) examine the impact of Congolese refugee camps on host communities in Rwanda. They find that *Rwandans living in the vicinity of a refugee camp were significantly more likely to be engaged in wage employment* compared with subsistence farming or livestock production. This suggests Rwandans shifted away from subsistence agricultural activities in response to the presence of refugees, possibly due to new non-farm business opportunities and/or the ability to hire low-skilled refugees to perform subsistence agricultural work. Females living in the vicinity of a camp were more likely to be self-employment in business. The authors suggest that living near a refugee camp may promote the inclusion of women in the local labor market, with longer-term impacts on gender roles. They posit that the integrative approach of the Rwandan government with regard to refugee settlement and the absence of enforced boundaries between refugees and the local community have resulted in a more unified labor market. They also show that living near a camp is associated with greater household asset ownership, benefiting both male- and female-headed households.

Sudan

In Sudan, influxes of IDPs from rural areas to Darfur's urban center (Nyala) led to increased competition in the low-skill labor market, a situation intensified by higher baseline unemployment.

Alix-Garcia and Bartlett (2015) find that, while influxes of IDPs may depress wages for low-skilled workers through increased competition, they seem to increase demand for goods produced by the relatively higher skilled. *Long-term residents of Darfur have a higher likelihood of maintaining employment in the high- and medium-skill sectors, and a lower probability of becoming unemployed.*

Overall insights from African studies

The following insights might be distilled from a review of the studies of African displacement crises:

- **The studies find positive effects on the overall welfare of host communities in the vicinity of refugee settlements and camps.** On average, rural host communities living in the vicinity of refugee camps and settlements in Tanzania, Kenya, Uganda and Rwanda experienced improvements in household welfare. This is attributed to higher agricultural productivity due to the influx of low-cost labor, increases in new wage employment opportunities associated with refugee camps (in particular in Kenya), new possibilities to trade, and the attraction of new enterprises.
- **Average effects mask important heterogeneous effects on host communities.** In general, agricultural producers gain more since they are able to take advantage of the cheaper labor provided by refugees, while agricultural workers gain less or come under stress when there are new influxes of refugees, since they face increased competition from refugees in the labor market. Additionally, the effects on women and men are likely to vary. For example, Tanzanian women, particularly those with poor literacy and numeracy skills, were more likely than men to lose wage employment.
- **In some settings (e.g. Tanzania) refugees appear to substitute for hosts in wage employment and hosts are more likely to shift livelihoods into subsistence farming and pastoral activities.** In other settings (e.g. Rwanda), the opposite appears to be the case; wage employment increases and subsistence farming activities decrease due to expanded non-farm business opportunities and the ability to hire low-skilled refugee labor to perform subsistence agricultural work.
- **The adverse effects of labor market competition from refugees may be dominated by the positive effects of new employment opportunities associated with refugee camp complexes,** as the evidence from Kenya suggests. Additionally, increased demand for the goods produced by relatively high-skilled hosts, might increase wages for hosts employed in medium- and high-skilled sectors, as the evidence from Sudan suggests.
- **In the long term, if increases in labor and agricultural productivity do not offset increases in demand, then there can be adverse impacts on host communities** (Becker & Ferrara, 2019), as demonstrated in the study by Kofol and Naghsh Nejad (2019).

Partition of British India in 1947

Bharadwaj and Mirza (2019) examine the impact of refugee flows, following the 1947 partition of British India, on long-term agricultural development in receiving districts in India. They find that *districts with a larger refugee presence in 1951 had significantly higher agricultural yields and were more likely to adopt new agricultural technologies* in the decades following partition; the increase in agricultural yields and the take up of agricultural technology coincide with the beginning of the Green Revolution in India. The authors argue that the refugee presence enabled the adoption of new technologies once the Green Revolution made it possible to do so. The authors explore the possible mechanisms driving these results and present some preliminary evidence that *refugee literacy played an important role in the take up of new agricultural technologies during the Green Revolution.*⁷¹ This mechanism is consistent with the literature demonstrating a positive relationship between education and agricultural development, based on the underlying hypothesis that better education enables farmers to understand, evaluate and respond to new developments, making them more likely to adopt new ideas and technologies.

Overall impacts in low- and middle-income host countries

Studies present mixed evidence on the effects of forced migrants on the labor market outcomes of host populations in low- and middle-income countries. Broadly the evidence suggests that:

- **While the overall effects on wage employment are ambiguous, the evidence suggests negative effects on the employment of low-skilled workers who compete directly with forced migrants in the informal labor market.** In low- and middle-income countries, these tend to be groups that are already more vulnerable: the low-skilled, poorly educated, informal workers, women and youth.
- **There appear to be positive effects on the employment of workers in the formal sector,** driven by occupational upgrading and the shift of host workers from manual-intensive tasks to more abstract tasks that are complementary to the forced migrant labor supply.
- **The effect on overall wages is ambiguous.** Several studies suggest negative effects on the wages for unskilled workers in the informal sector, and small positive effects for wages of skilled workers in the formal sector.
- **Forced migrants frequently provide a source of cheaper labor, benefiting owners of land and leading to overall increases in household welfare in many settings.** In rural settings in Africa, for example, there are positive overall impacts on the welfare of host communities in the vicinity of refugee settlements and camps, but with important heterogeneous effects. Agricultural producers stand to gain more from the cheaper labor provided by refugees, while agricultural workers gain less, since they face increased competition for wage employment. By providing a cheaper source of labor, forced migrants can also benefit owners of businesses, leading to firm creation and increases in firm productivity.

⁷¹ This builds on the work of Bharadwaj et al (2015) that showed that Indian districts that received refugees at partition experienced a net increase in their literacy rates.

- **Out-migration of affected residents (or lower in-migration) may help to mitigate adverse labor market effects over time.** Studies in Turkey and Colombia suggest that adverse labor market impacts are dampened due to the outmigration of native workers from regions hosting refugees or IDPs.
- **The impact of forced migration is likely to vary across contexts reflecting differences** such as: the scale of forced migration flows relative to the host population; the degree of substitutability between forced migrants and natives in terms of skills, language and culture;⁷² whether the setting is urban or rural; whether forced migrants are accommodated in camps or settlements, or dispersed among the host population; host country restrictions on refugees' freedom of movement, access to employment opportunities, or access to land for cultivation; the local industry mix; initial conditions in the host labor market, in particular initial unemployment rates; the existing stock of migrant workers; possibilities for occupational upgrading; and the impact of conflict on particular sectors of the local economy.⁷³
- **Effects might change in the long term.** Some of the effects of forced migration take place quickly, while some adjustments unfold over several years (Blau & Mackie, 2016). The study by Bharadwaj and Mirza (2019) suggests that migration can lead to long-term improvements in agricultural development if refugees have higher educational attainment, making them more likely to adopt new ideas and technologies.

Empirical issues and limitations

While forced migration flows are 'more exogenous' than flows of voluntary migrants, there are, nevertheless, **problems with endogeneity**. If forced migrants choose to settle in areas with better economic conditions and employment prospects, then adverse effects on host labor market outcomes may be underestimated (Becker & Ferrara, 2019). Many studies address endogeneity issues by employing an instrumental variable approach, but the specification of instrumental variables presents some challenges.

Additionally, there may be selectivity among both the host population and displaced population. Host workers who face increased competition from forced migrants may choose to migrate out of host regions, while host workers who are complementary to forced migrant labor may opt to migrate into host regions (Tumen, 2015). If host workers with particular attributes and preferences leave host regions, this will introduce selectivity among the host population (Tumen, 2015). In the case of the displaced population, selectivity may be introduced if forced migrants' choice of occupation is influenced by the relative labor market conditions across occupations.

The studies largely focus on the short-term impacts of forced migration. Many of the studies do not explicitly distinguish short-, medium- or long-term effects.

⁷² For example, refugees in the Africa region often settle in border regions of host countries, where they frequently live alongside host communities with a shared ethnicity and language—this suggests they may be close substitutes in the labor market (Ruiz & Vargas-Silva, 2017).

⁷³ In the Darfur region of Sudan, for example, rural agricultural activities ceased due to the conflict. This had a differentiated impact on sectors of the urban economy. Occupations that relied on rural agricultural production (e.g. agricultural traders) were adversely affected. (Alix-Garcia & Bartlett, 2015).

Conclusions

The literature highlights the potential gains that may accrue to host populations and host economies when displaced populations participate in host labor markets, particularly in the long term as labor and capital markets adjust. However, the literature also suggests that there are likely to be winners and losers among the host population, and it is often the most vulnerable groups within the host population—informal workers, less-skilled workers, women and youth—that suffer declines in their wages, employment or welfare, particularly in the short term.

Policy responses should therefore aim to maximize the economic benefits arising from the economic inclusion of refugees, support the rapid adjustment of capital and labor markets, and mitigate adverse impacts on vulnerable groups within the host population. Interventions may, for example, address the displacement of host workers from the labor market through job creation or social protection programs. Policies that encourage and support host works to upgrade their skills might also mitigate adverse effects on overall labor market outcomes. Additionally, policies can support entrepreneurship (in both the host community and displaced population) and the responsiveness of firms to investment opportunities.

In situations where forcibly displaced persons are not permitted to work, or where their qualifications are not recognized, they seek employment in the informal labor market. Here they tend to compete with already vulnerable groups among the host population—low-skilled, poorly educated and female workers, who tend to be overrepresented in the informal sector (World Bank, 2017). Permitting forced migrants to access the formal labor market, recognizing their qualifications and eliminating restriction on employment in certain sectors can disperse adverse effects across different skill levels and across sectors (Verme & Schuettler, 2019).

The literature also demonstrates the long-term economic benefits that arise from forced migration flows, which lead to increased productivity, structural transformation, innovation and long-term economic growth. Any adverse impacts of forced migrants in the short and medium term need to be considered alongside the potential for broader long-term benefits arising from the economic inclusion of forced migrants.

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Annex 1: List of studies and main results

High-income countries

Wages and employment

Study	Origin	Destination	Employment	Wages
Card (1990)	Cuba	United States	Negligible effect for less skilled non-Cuban workers, or for earlier Cuban immigrants	Negligible effect for less-skilled non-Cuban workers, or for earlier Cuban immigrants
Bodvarsson et al (2008)	Cuba	United States		Increase in demand for labor induced by immigration offset labor substitution effect
Borjas (2017)	Cuba	United States	No effect	Wages for high-school dropouts (-) Wages of high school graduates (+)
Borjas and Monras (2017)	Cuba	United States	Unemployment rate of high school graduates (-)	Wages for high school dropouts (-) Wages of high school graduates (+)
Peri and Yasenov (2019)	Cuba	United States	No significant effect	No significant effect
Clemens and Hunt (2019)	Cuba	United States	No effect	
Friedberg (2001)	Former Soviet Union	Israel	No adverse effect	No adverse effect
Cohen-Goldner and Paserman (2011)	Former Soviet Union	Israel	No effect in short- or long-term	Wages (-) in short term but effect dissolves after 4-7 years
Borjas and Monras (2017)	Former Soviet Union	Israel		Wages of comparable workers (-) Wage of natives who were least skilled (+)
Clemens and Hunt (2019)	Former Soviet Union	Israel		Positive but statistically insignificant effect on native wages

Hunt (1992)	Algeria	France	Small adverse effect	Small adverse effect
Borjas and Monras (2017)	Algeria	France	Small adverse effect on unemployment	
Clemens and Hunt (2019)	Algeria	France	Small adverse effect on unemployment	
Angrist and Kugler (2003)	Former Republic of Yugoslavia	Europe	Employment (-) in countries with restrictive institutions	
Borjas and Monras (2017)	Former Republic of Yugoslavia	Europe	Unemployment (+) and employment (-) for native workers with a secondary education Unemployment (-) and employment (+) of natives with at most a primary education	
Clemens and Hunt (2019)	Former Republic of Yugoslavia	Europe	Unstable, statistically insignificant effect on unemployment	
Carrington and de Lima (1996)	Angola and Mozambique	Portugal	Employment (-), but swamped by economic downturn in Europe	Wages (-), but swamped by economic downturn in Europe
Makela (2017)	Angola and Mozambique	Portugal		Short run: wages (-) especially for low-skilled Long run: wages (-)
Glitz (2012)	Eastern Europe and the former Soviet Union	Germany	Employment (-)	Relative wages unaffected
Braun and Mahmoud (2014)	East and Central Europe	Germany	Employment (-), but only if expellees exceeded around 15 percent of local population	
Foged and Peri (2016)	Various	Denmark	Employment (+), due to occupational upgrading	Unskilled wages (+), due to occupational upgrading
Gehrsitz and Ungerer (2018)	Various	Germany	Employment (+)	

Labanca (2020)	Arab Spring countries	Italy	No overall effect; significant and offsetting short-term employment effects across industries	No overall effect
Sarvimäki (2011)				Wages (+) in long run

Productivity and long-term economic growth

Study	Origin	Destination	Productivity and long-term economic growth
Braun and Kvasnicka (2014)	Eastern Europe	West Germany	Structural change away from low-productivity agriculture
Hornung (2014)	France	Prussia	Productivity of textile factories (+)
Moser et al (2014)	Germany and Austria	United States	Innovation (+)
Murard and Sakali (2019)	Turkey	Greece	Size of manufacturing and financial sectors (+)
Paserman (2013)	Soviet Union	Israel	Output per worker in low tech industries (-), output per worker in high tech industries (+)
Peters (2019)	Eastern Europe	West Germany	Income per capita (+), manufacturing employment (+), entry of new plants (+)
Sarvimäki (2011)	Southeast Finland	Finland	Industrialization (+)

Low- and middle-income countries

Wages and employment

Study	Origin	Destination	Employment	Wages
Aydemir and Kirdar (2017)	Bulgaria	Turkey	Unemployment (+) of native men	
Akgunduz et al	Syria	Turkey	No effect	

(2015)				
Del Carpio and Wagner (2016)	Syria	Turkey	<p>Informal sector: large adverse effects, especially for workers without a formal education</p> <p>Formal sector: positive effects, but only for men who did not complete a high school education</p> <p>Overall: negative effect, concentrated among women and low-skilled; medium-skilled workers experience no net displacement and possibly even small gains</p>	<p>Decline in the residual wage for the informal sector, women and low-education workers</p> <p>Workers with below average wages are displaced, increasing average wages for remaining workers.</p> <p>Overall increase in average wages</p>
Tumen (2016)	Syria	Turkey	<p>Informal sector: small negative effect</p> <p>Formal sector: very small positive effect</p> <p>Overall: negative effect</p>	No effect
Ceritoglu et al (2017)	Syria	Turkey	<p>Informal sector: negative effect</p> <p>Formal sector: slight positive effect</p> <p>Overall: negative effect</p>	No effect
Esen and Binatli (2017)	Syria	Turkey	<p>Increased unemployment</p> <p>Decreased employment, both formal and informal</p>	
Aksu et al (2018)	Syria	Turkey	<p>Informal sector: decline in wage employment of native men, more pronounced for less-educated and younger workers</p> <p>Formal sector: increase in wage employment of native men, more pronounced for the less-educated and younger workers</p> <p>Overall, no adverse impacts for native</p>	<p>Informal sector: suggestive evidence of a decline in wages of native men, more pronounced for the less-educated and younger workers</p> <p>Formal sector: increase in wages of native men, more pronounced for the less-educated and younger workers</p> <p>Overall, no adverse effect for native men or native women</p>

			men, but employment of native women falls due to a decline in part-time employment	
Bagir (2018)	Syria	Turkey	Primary migration: negative effect among low-skilled and less experienced workers, concentrated in the informal sector Secondary migration: no effect	Primary migration: negative wage effect, driven by a decline in wages of informal workers Secondary migration: negative wage effects for low-skilled and less-experienced workers
Akgündüz and Torun (2020)	Syria	Turkey	Refugees substitute for Turkish workers in manual intensive jobs leading to a decrease in native employment	
Altindag et al (2020)	Syria	Turkey	Negative effect, concentrated in the informal labor market	Small increase in wages
Fakih and Ibrahim (2016)	Syria	Jordan	No significant impact	No significant impact
Fallah et al (2019)	Syria	Jordan	No overall effect	No effect on monthly wages, increase in hourly wages
David et al (2019)	Syria	Lebanon	Unemployment (+) low- and medium-skilled Lebanese workers	Labor income (-) for low- and medium-skilled Lebanese workers
Bozzoli et al (2012)	Colombia	Colombia	Increase in self-employment in the services sector	Income for self-employed falls No effect on income from wage employment
Calderón-Mejía and Ibáñez (2016)	Colombia	Colombia	Large adverse impacts, particularly for low-skilled workers and those in the informal sector	Large adverse impacts, particularly for low-skilled workers and those in the informal sector
Morales (2017)	Colombia	Colombia		Adverse effects on wages in the short term, particularly for women

				No overall impacts on wages in the long term, but the negative impact on wages of women persists
Caruso et al (2019)	Venezuela	Colombia		Adverse impacts on wages in the short term. More pronounced for young people, are largely concentrated in urban areas in the informal sector, and are more pronounced for low-skilled men.
Olivieri et al (2020)	Venezuela	Ecuador	No effect on labor market participation or employment.	Young, low-educated Ecuadorian workers in high-inflow regions have been adversely affected in terms of quality of employment and earnings.

Other labor market impacts, household welfare (Africa region)

Study	Origin	Destination	Labor market impacts	Impact on household welfare
Maystadt and Verwimp (2014)	Burundi and Rwanda	Tanzania		Overall positive, but differentiated by source of income Self-employed in agriculture gained more; agricultural workers gained less
Ruiz and Vargas-Silva (2015)	Burundi and Rwanda	Tanzania	Less likely to work in wage employment	
Ruiz and Vargas-Silva (2016)	Burundi and Rwanda	Tanzania	Less likely to work in wage employment	
Ruiz and Vargas-Silva (2018)	Burundi and Rwanda	Tanzania	Compared to men, women less likely to engage in wage employment	
Kofol and Naghsh Nejad (2019)	Burundi and Rwanda	Tanzania	Reduction in child labor in the short term, increase in child labor in the long term	Household income increased in short- and long-term
Alix-Garcia et al	Mainly South Sudan	Kenya	New employment associated with the	Overall positive

(2018)	and Somalia		camp, particularly for households with secondary education, which dominates impact of labor competition from refugees	
Kreibaum (2016)	DRC	Uganda		Overall positive, but those competing directly with refugees in the labor market come under stress when there are new influxes of refugees
Loschmann et al (2020)	DRC	Rwanda	Increase in wage employment Reduction in subsistence farming activities Female self-employment increases	Increase in household assets
Alix-Garcia and Bartlett (2015)	Sudan	Sudan	Higher likelihood of maintaining employment in medium- and high-skill sectors Lower probability of falling into unemployment Increased competition in the low-skill labor market, depressing wages for low-skilled Increased demand for goods produced by the relatively higher skilled, increasing wages for medium- and high-skilled	

Productivity and long-term economic growth

Authors	Origin	Destination	Productivity and long-term economic growth
Bharadwaj and Mirza (2019)	Pakistan	India	Agricultural development (+), average agricultural yields (+), take up of high yielding varieties of seeds (+), use of agricultural technologies (+)