Kiel **Policy Brief**

Greasing the Wheels of the Labor Market? Immigration and Worker Mobility

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No. 52 | July 2012

Institut für Weltwirtschaft Kiel
Kiel Institute for the World Economy
ISSN 2195–7525

1. Introduction

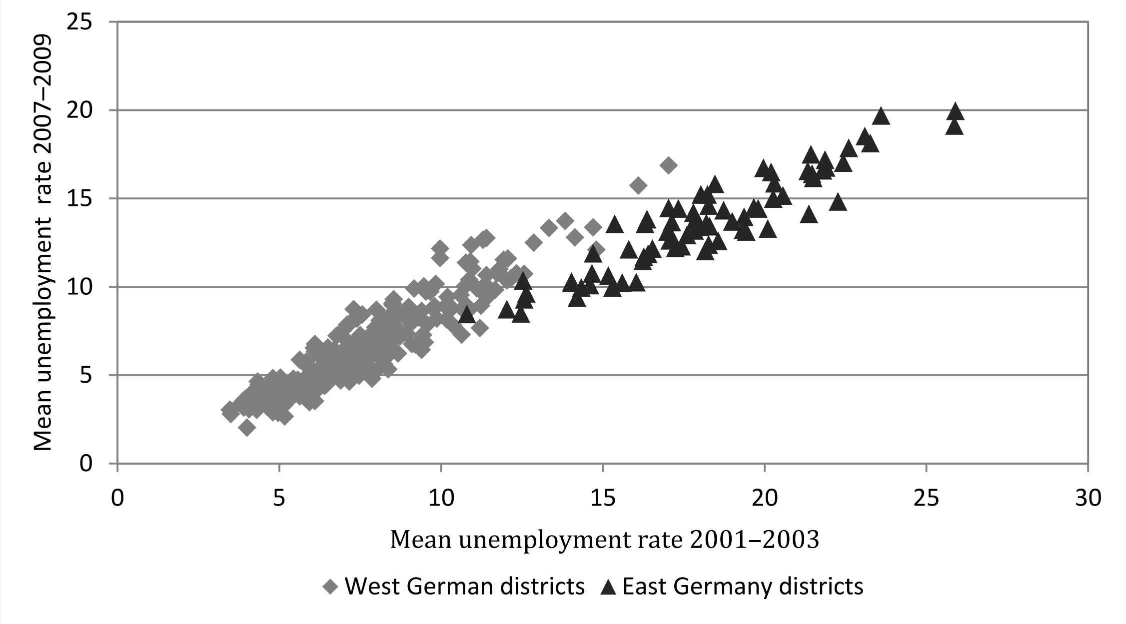
What are the costs and benefits of immigration to host countries? And do the benefits of immigration outweigh the costs or do the costs exceed the benefits? These questions are controversially debated in academic and policy circles alike. Immigrants may decrease wages of competing native workers and put fiscal strains on host economies if they become net recipients of welfare transfers. Yet, migration may also keep social security systems of aging societies solvent and aid in overcoming skill shortages. This Kiel Policy Brief argues that immigration is also likely to make the labor force more responsive to regional disparities in economic opportunities, thereby increasing the efficiency of the labor market. This benefit of immigration has largely gone unnoticed in current policy debates on immigration.

An efficient labor market requires labor to flow to those regions (or sectors and occupations) where it is most productive. Such labor flows are especially important in times of economic turmoil, as in the recent financial crisis, when economies are hit by severe economic shocks that greatly affect output, wages and employment. These shocks are often asymmetric, i.e., they hit some regions stronger than others, and thus create imbalances in the labor market. This results in sometimes considerable differences in wages or unemployment rates across regions. An efficient labor market is able to moderate these disparities by reallocating labor from low-wage, high-unemployment regions (where labor is less productive) to high-wage, low-unemployment regions (where it is more productive). This mechanism not only reduces labor market imbalances, but also increases overall output due to a more efficient use of labor. However, for this mitigating mechanism to work, the labor force of a country has to react sufficiently strongly to disparities in wages and employment, so that workers actually move to where they are most productive. Therefore, a more mobile labor force, which adapts quicker to labor market disparities, boosts economy-wide output and cushions fluctuations in economic activity.

In reality, labor markets are never fully efficient and regional disparities often persist for quite a long time. Take, for example, wage and unemployment differentials between the old and new German states (*Bundesländer*). Figure 1 depicts the regional mean unemployment rates in 2001–2003 and 2007–2009 at the level of German districts (*Landkreise* and *Kreisfreie Städte*). Differences in unemployment rates are not only large, and often reach 10 percentage points or more, but are also remarkably persistent over time. Insufficient labor mobility is a potential reason for labor market imbalances to persist, and has thus gained increased attention especially in Europe, where regional unemployment differentials remain relatively large.

Why do not more people respond to these disparities by moving to regions where they are more likely to be employed or could earn higher wages? An obvious explanation is that there are costs associated with moving to other regions and changing jobs. Direct costs include the time spent on looking for a new job and the actual pecuniary costs of moving. Indirect costs include social and psychological costs of leaving one's home, family and social network behind and usually depend on the strength of the ties with the origin region. As long as the (direct and indirect) costs of moving exceed the gains, a worker will not move even if (s)he could earn higher wages elsewhere. Significant wage and employment differentials, as observed between the German *Bundesländer,* can then persist without inducing labor market flows.

Figure 1:
The persistence of unemployment differences across German districts (*Landkreise* and *Kreisfreie Städte*)



Source: **Bundesinstitut für Bau-, Stadt- und Raumforschung**

For several reasons, immigrants are likely to react stronger to labor market disparities than natives. Firstly, they usually give up their old job in their home country. Upon arrival, immigrants have to search for a new job anyway and are thus likely to choose the region where job opportunities are best. The costs of choosing one region over another are in all likelihood small and not decisive for the location decision of newly arrived immigrants. Secondly, immigrants only gradually develop social and psychological ties with the destination and will thus, for a certain period, face lower (indirect) costs of moving within the destination than natives. Thirdly, the fact that immigrants chose to emigrate and leave their homelands behind suggests that they have, on average, a relatively high risk attitude. Hence immigrants are a preselected group of relatively mobile people. This is likely to be an intrinsic and persistent characteristic. For all these reasons, immigrants tend to be more mobile than average natives, especially when they arrive but also after they have settled. This higher mobility of immigrants, in turn, will help an economy to adapt faster to (asymmetric) economic shocks and to increase its labor market efficiency. This may be all the more important in a unified

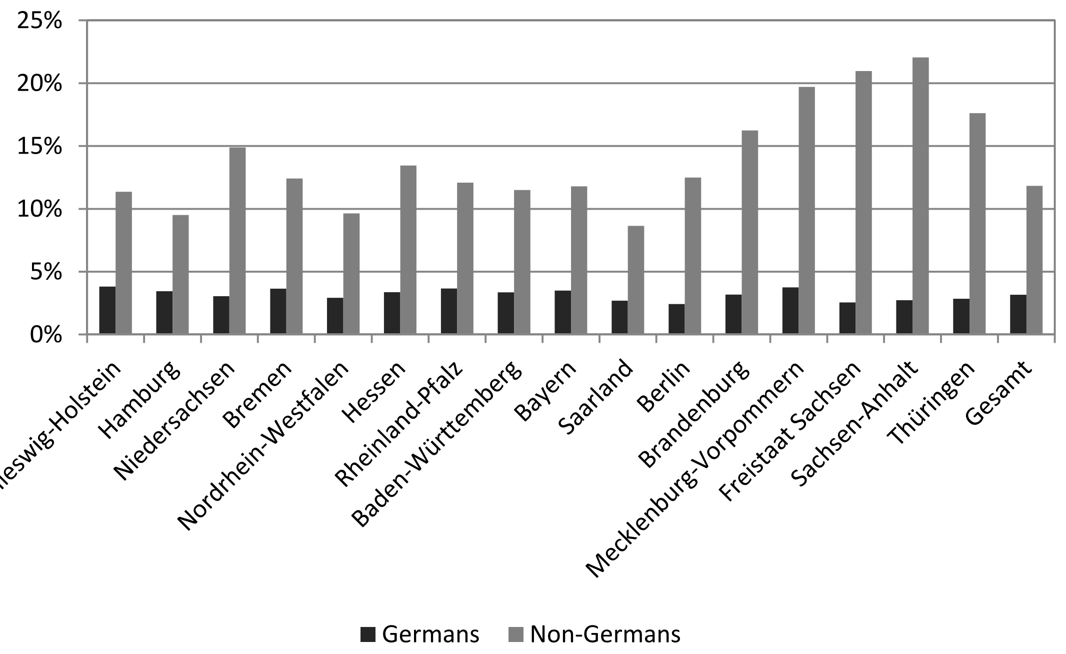
Eurozone, in which exchange rate movements are no longer available as an adjustment mechanism to regional macroeconomic shocks.

In what follows, we will elaborate on the line of argument outlined above and provide concrete examples for its practical importance. The next section presents evidence that immigrants are indeed more mobile than natives and discusses the likely reasons behind this finding. Section 3 discusses the efficiency gains that result from a more mobile workforce, and Section 4 concludes.

2. Are Immigrants more Mobile than Natives? And if so, why?

Are immigrants indeed more mobile than natives? Figure 2 gives the percentage of Germans and Non-Germans that moved across German districts during 2010.[1] In each state, the share of movers in the immigrant population is at least twice as high as the share of movers in the native population. These figures strongly suggest that immigrants are moving around more frequently than natives. But do migrants also move to where job opportunities are best?

Figure 2:
Percentage of Germans and Non-Germans that moved over district borders in 2010, by German states



Note: Data for moving out of a district. Not accounted for movers that moved in and out of states in 2010.

Source: **Statistisches Bundesamt.**

[1] That is, the number of out-movers from the districts divided by the number of each group at the beginning of 2010. The data is aggregate, so individuals that moved in and out of a district during the time period are not included.

The existing empirical evidence suggests that immigrants indeed respond stronger to regional differences in labor market outcomes than natives. In a seminal contribution, Borjas (2001) finds that between 1985 and 1990 new immigrants accounted for only 1.9 percent of the US labor force, but accounted for 15 percent of those who moved across state borders. He then goes on to show that new immigrants are more responsive to interstate wage differences than natives. For Germany, Schündeln (2007) presents evidence that even after controlling for individual characteristics, immigrants react stronger to wage and employment differentials than natives. Using data from the German *Mikrozensus* for the years 1996–2003, he estimates that migration costs are about 2.7 times larger for natives than for immigrants. The figure increases to 3.4 if he compares natives only to those immigrants that live in Germany for less than 10 years. Røed and Schøn (2010) analyze the sensitivity of immigrants and refugees to labor market disparities in Norway at three stages: when they arrive in Norway (stage 1), during their stay (stage 2) and when they leave Norway (stage 3). The authors conclude that at all three stages immigrants are significantly more responsive to regional economic differences than natives.

What explains the higher mobility of immigrants? At least three explanations come to mind. The relative importance of these explanations varies with the time migrants have spent in the destination.

Firstly, for newly arriving immigrants the costs of choosing one region over another are in all likelihood small and not decisive for their initial location decision. They have already given up their old job, left their homelands and families, and thus have nothing to hold on to upon arrival. Therefore, immigrants are likely to move to those regions that offer them the best economic opportunities. Natives, in contrast, have the opportunity to stay with their old job, and may thus not move to high-wage regions due to the opportunity costs of leaving their present job (and home) behind. However, once immigrants have settled down and found a job, they will also face opportunity cost of moving on to another region within the destination country.

Secondly, immigrants have left behind their social network and will only gradually develop social ties with the local area. For a certain time period, immigrants are thus less attached to a certain region in the destination country than natives and are more likely to respond to regional differences in employment opportunities. Schündeln (2007) presents evidence for Germany that foreigners have indeed weaker ties to the local area than natives. Over time, however, foreigners will gradually develop social ties and will find it more and more costly to move on.

Thirdly, immigrants are a selected, highly mobile group of the sending country's population. In fact, individuals who are more willing to take risks are also more willing to migrate (Jäger et al., 2010). Immigrants will thus have a higher risk attitude than the average population. But the higher risk attitude is an intrinsic, not a transient, characteristic of migrants. It thus follows that even a long time after they arrive in the destination country, immigrants are likely to be more sensitive to labor market disparities than natives.

For all of these reasons, immigrants tend to be more responsive to labor market disparities than natives, but the difference is likely to decrease over time.

3. Efficiency Gains from a More Mobile Workforce

Why is labor mobility a crucial component in the functioning of labor markets? An efficient labor market requires labor to move to those regions where it is most productive. By increasing local labor supply in high-wage, low-unemployment regions and decreasing it in low-wage, high-unemployment regions, labor mobility will level wages and unemployment differentials across regions[2] and increase the overall output of an economy. For this mechanism to work, the labor force has to respond sufficiently strongly to disparities in the labor market. The idea that labor mobility in general and immigrants in particular can increase the efficiency of the labor market is supported by the (relatively sparse) empirical literature on the topic.

Niebuhr et al. (2011) investigate labor market disparities within Germany and find that labor mobility indeed reduced regional unemployment disparities between 1995 and 2005. Tani (2003) investigates 161 European regions over the 1990s. He provides evidence that after a negative labor demand shock, immigrants are much more likely to move to another region than natives. Natives, in contrast, reduce their working hours or leave the labor market altogether in response to a negative labor demand shock. Yet, the necessary employment adjustment of natives is lower precisely because immigrants leave a region after a negative labor demand shock and thus improve the employment opportunities of those who stay behind. Tani (2003) thus concludes that the higher regional mobility of immigrants cushions shocks to native employment.

Are the gains from a mobile migrant labor force quantitatively important? Little is known on this question, but two papers provide at least some first insights. In a stylized US economy, Borjas (2001) estimates different scenarios for the efficiency gains from immigration that accrue to natives. He shows that the gains from immigration increase with the size of labor market disparities (prior to immigration) and decrease with the mobility rate of natives. Borjas (2001) argues that accounting for labor market flows may easily double the usual estimates of the gains from immigration, but concludes that the overall gains remain relatively small. In the context of the EU-enlargement, Boeri and Brückner (2005) argue that immigration from new to old member states might substantially boost overall EU GDP. Estimating a general equilibrium model, they find that the gains from immigration are significantly larger in the presence of regional labor market disparities than in their absence (if immigrants are indeed more sensitive

[2] Strictly speaking, this is not necessarily true outside the realm of traditional neoclassical models, but seems to be supported by the data (see Niebuhr et al., 2011).

to labor market disparities than natives). Overall, these papers tentatively indicate that the efficiency gains from a mobile migrant population could be non-negligible in practice.

In all of the above studies, the efficiency gains through immigrants arise because of *regional* labor market disparities. Braun and Kvasnicka (2012) show that immigrants may also help to overcome sectoral disparities and accelerate sectoral change towards high-productivity sectors. Box 1 presents their study on immigration and sectoral change in post-war West Germany.

Box 1:
Case Study: Immigration and Sectoral Change in Post War Germany

At the eve of World War II, more than a quarter of the labor force of the German Reich was still in agriculture. This was in sharp contrast to, e.g., the UK, where little more than five percent of the workforce was in agriculture. At the same time, Germany's labor productivity in agriculture dramatically lagged behind Britain's, while in most other sectors, Germany's labor productivity matched or even exceeded Britain's. The West German state thus inherited a large and unproductive agricultural sector when it was founded in 1949. However, this misallocation of resources also provided ample opportunities to increase economy-wide labor productivity and to boost economic growth by moving inefficient labor out of agriculture (Broadberry 1997, Temin 2002).

It was in this situation that German expellees from the former Eastern territories of the German Reich arrived in war-ridden West Germany. In September 1950, German expellees accounted for as much as 16.5 percent of the West German population. Expellees were, however, very unevenly distributed across West German regions. Their population share ranged from less than 4 percent in the district of Trier to almost 35 percent in the district of Lüneburg.

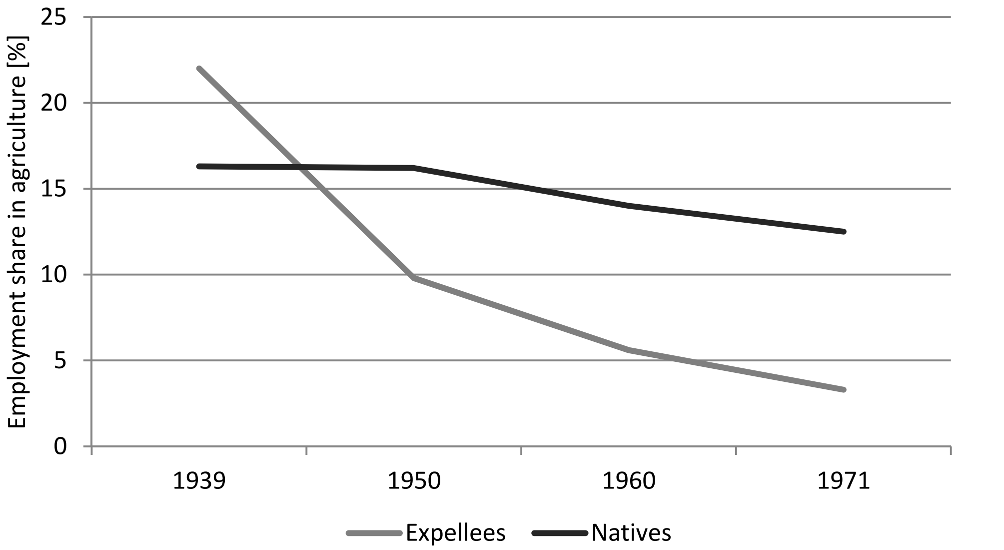
In contrast to most other immigration episodes, expellees and native West Germans were very similar in many respects. There were both Germans, had both been educated in German schools and their level of education was essentially identical (Bauer et al., 2011). Expellees were also not a selected sub-group of the sending region, as they did not choose to leave their homelands but were forced to do so. However, expellees were more likely to have worked in agriculture before the war, a result of the more agrarian structure of the eastern territories of the German Reich. One may thus suspect that the expellees exacerbated the misallocation of resources in West Germany by moving back into agriculture (where they had their sector-specific human capital). Yet, the opposite was true: Expellees accelerated structural change in West Germany, as they were more inclined to leave agriculture than natives.

Box 1 continued:

Figure 3 shows the agricultural employment shares of expellees and natives in 1939, 1950, 1960, and 1971 for one particular age cohort (those born between 1910 and 1919), using data from the *Mikrozenus Zusatzerhebung 1971*. Before the war, expellees were clearly more likely to work in agriculture than natives. Yet, their employment share in agriculture more than halved between 1939 and 1950, and it continued to decline thereafter. Many expellees who had been in agriculture before the war thus choose not to move back into the low paying agricultural sector that offered little employment opportunities. The agricultural employment share of natives, in contrast, remained almost constant between 1939 and 1950.

This difference in behavior is perfectly in line with our (first) explanation for higher regional mobility of migrants (as outlined in Section 2). When the expellees arrived in West Germany, they did not have the option to stay with their old job, but rather had to search for a new job anyway. The expellees thus had to incur (or already incurred) the costs of moving no matter which job they chose to work in. Therefore, they arguably responded stronger to sectoral differences in employment opportunities and wages than natives. By doing so, the expellees fostered sectoral change away from low-productivity agriculture towards higher-productivity sectors in West Germany. Using district-level data, Braun and Kvasnicka (2012) estimate that an increase in the share of expellees in a district by one percentage point reduced the districts' agricultural employment share in 1950 by 0.3 percentage points. They also show that, by expanding the high-productivity sector, the inflow of expellees also had a positive effect on per-capita output.

Figure 3:
Employment share in agriculture, expellees and natives born 1910–19



Source: **Mikrozenus Zusatzerhebung 1971, own calculations**

4. Conclusion

Both the economic effects of immigration and the mobility of a country's workforce, often perceived as insufficient to level regional labor market disparities, rank high on the policy agenda of many developed economies. This Kiel Policy Brief has shown that the two topics are connected, as immigration can increase the mobility of a country's workforce. Since immigrants move more readily from low-wage, high-unemployment regions to high-wage, low-unemployment regions than natives, they help to level wage and employment disparities, increase overall output and cushion fluctuations in economic activity in their host country. In short: Immigration can increase labor market efficiency.

This insight may be particularly important for Eurozone countries, which share a common currency and can no longer pursue independent monetary policies in response to regional or national economic shocks. It would thus be all the more important for labor mobility to help out as an adjustment mechanism to asymmetric shocks in the Eurozone. Yet labor mobility remains low in Europe and is unlikely to be a sufficient adjustment mechanism in practice (Puhani, 2001). Less restrictive EU migration policies might remedy this problem. After all, it is not a coincidence that the low rates of labor mobility in Europe are frequently contrasted with the high rates of labor mobility in the US, the "nation of immigrants".

REFERENCES

Bauer, T.,S. Braun, and M. Kvasnicka (2011). The economic integration of forced migrants: Evidence for post-war Germany. *IZA Discussion Papers* 5855

Borjas, G. (2001). Does immigration grease the wheels of the labor market? *Brookings Papers on Economic Activity* 32(1): 69–134

Boeri, T., and H. Brücker (2005). Why Are Europeans So Tough on Migrants? *Economic Policy* 44: 629–704

Braun, S., and M. Kvashnicka (2012). Immigration and structural change: Evidence from Post-war Germany. *Kiel Working Paper* 1778. Kiel Institute for the World Economy, Kiel.

Broadberry, S. (1997). Anglo-German productivity differences 1870–1990: A sectoral analysis. *European Review for Economic history* 1(2): 247–267

Jäger, D., T. Dohmen, A. Falk, D. Huffman, U. Sunde, and G. Bonin (2010). Direct evidence on risk attitudes and migration. *The Review of Economics and Statistics* 92(3): 684–689

Niebuhr, A., N. Granato, A. Haas, and S. Hamann (2011). Does Labour Mobility Reduce Disparities between Regional Labour Markets in Germany? *Regional Studies* (0): 1–18

Puhani, A. (2001). Labour Mobility – An Adjustment Mechanism in Euroland? Empirical Evidence for Western Germany, France, and Italy. *German Economic Review* 2(2): 127–140

Røed, M., and P. Schøn (2010). Does immigration increase labour market flexibility? Institute for Social Reasearch, Norway

Schündeln, M. (2007). Are immigrants more mobile than natives? Evidence from Germany. *IZA Discussion Papers* 3226

Tani, M. (2003). Do foreigners cushion native jobs? The case of European regions in the 1990s. *Labour* 17(4): 459–487

Imprint

Publisher:	Kiel Institute for the World Economy Hindenburgufer 66 D – 24105 Kiel Phone +49 (431) 8814–1 Fax +49 (431) 8814–500
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Sales tax identification number DE 811268087.

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