



Growing Inequality:
a Novel Integration of
transformations research

Weathering the storm: how to navigate Europe through technological change, globalisation, and migration

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GI-NI contributes to an inclusive Europe of shared prosperity by providing a better understanding of the changes and joint impact of three major transformations: technological progress, globalisation and migration; and offering policy and governance solutions to better equip citizens and companies for future challenges, securing more equal opportunities and outcomes. The project team uses a multidisciplinary research approach with international stakeholder engagement throughout the project.

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Key points

- Public debates and policy discussions tend to focus on technology, globalisation and migration in isolation. For instance, discussions on the effects of automation or trade on jobs and wages rarely consider how these forces interact. This fragmented approach overlooks the interconnected nature of these shocks and their combined influence on labour markets.
- Technological progress, globalisation and migration reinforce each other in ways that can amplify their individual impacts. For example, offshoring (a form of globalisation) is enabled by technological advancements, while migration trends can be influenced by economic shifts triggered by both trade liberalisation and technological disruption. These interdependencies can accelerate economic changes, making it harder for labour markets to adapt smoothly.
- The combined effects of the three shocks tend to widen labour market inequalities, especially in advanced economies. Automation reduces the number of routine jobs while boosting demand for high-skill, cognitive roles. Globalisation increases wage gaps by raising demand for skilled workers, and immigration—depending on the skill level of migrants—can either exacerbate or mitigate these disparities. Together, these shocks have led to job polarisation and rising wage inequality.
- The current EU policy approach treats technology, globalisation and migration as separate issues, despite their interconnected nature. Additionally, while trade policy is centralised at the EU level, other crucial areas like technology investment and migration policy are managed, by and large, at the national level. This fragmented system makes it difficult to coordinate effective, unified responses to the labour market challenges posed by these shocks.
- The proposed integrated policy approach seeks to align trade, investment, and migration policies to address their interconnected impacts on labour markets and inequalities. By shifting from isolated, function-based policymaking to goal-oriented, outcome-based coordination, this approach aims to harmonise rules at the EU level while allowing tailored national implementation within a binding framework. It emphasises labour market integration of migrants, increased labour mobility within the EU, and a focus on attracting highly skilled migrants. This balanced strategy seeks to manage short-term disruptions while maximising long-term benefits like innovation, productivity, and equitable economic gains.

Context

Europe is undergoing major changes, with new technologies, shifting globalisation, and high migration levels all reshaping labour markets. These forces are altering both the quantity and type of jobs available, as well as the workforce itself.

Public debates often examine the effects of technology, globalisation, and migration separately. For instance, discussions about whether automation and digitalisation reduce jobs and increase inequality rarely consider globalisation or migration. Similarly, debates about who gains from international trade or how immigration affects wages and employment are often isolated from broader trends.

However, these transformations are deeply interconnected. Economic research has built a strong evidence base showing how they influence one another and collectively shape labour markets.

Technological progress and globalisation

Advancements in logistics and communication have greatly expanded global trade. They have also enabled different stages of production to be relocated to other countries—a process known as “offshoring”. When companies offshore to reduce costs, trade volumes increase.

Technology also fuels trade by allowing businesses to create more diverse products and benefit from economies of scale. At the same time, trade helps spread knowledge and innovation. Offshoring, in particular, enables companies to learn from and imitate others. Economies open to international trade tend to invest more in research, development, and the adoption of new, efficient technologies.



Context

Technological progress and migration

Technological progress is a key driver of economic growth. However, if it occurs mainly in advanced economies, the gap between richer and poorer countries widens, increasing incentives for migration. Today, improvements in communication and financial technology make it easier for migrants to stay connected with their home countries and send money abroad, reducing the costs of migration.

At the same time, migration itself can fuel technological progress. Highly skilled migrants bring valuable knowledge and expertise, improving existing technologies and creating new ones—especially in science, technology, engineering, and mathematics (STEM). Many migrant entrepreneurs also introduce innovative products and services, as seen in places like Silicon Valley. Low-skilled migration, which has significantly impacted the EU in recent years, has different effects. However, it can still support technological progress by lowering production costs, freeing up resources for research and development, or encouraging native workers to shift toward more technology-driven roles.

Globalisation and migration

Global trade can influence migration in different ways. When trade integration helps equalise wages across countries, it can reduce incentives to migrate. However, trade can also encourage migration. If trade liberalisation triggers economic shifts within a country, then this can disadvantage certain groups of workers who may then become more likely to seek opportunities abroad. For many poorer households, migration costs can also be too high. But when a country opens up to global markets, rising incomes may push some people past the financial threshold needed to migrate.

Migration, in turn, boosts trade. Migrants help lower trade costs by improving communication and business connections between their home and host countries, strengthening bilateral trade. They also create demand for goods from their home countries—such as specific foods—driving imports to their destination countries.

Impact on labour market inequalities

What are the connections between inequalities in the labour market and the three transformations? The key takeaway here is that the three transformations interact with one another in shaping labour market inequalities.

- **Technological change and globalisation:** Standard models suggest that international trade increases wage inequality in richer countries, where highly skilled workers are abundant, while reducing it in poorer countries, where they are scarce. Technological progress that favours skilled workers (skill-biased technological change, SBTC) further widens wage gaps in richer countries. Offshoring has a similar effect by shifting labour-intensive jobs to poorer countries. More recent research highlights the impact of automation. In the U.S., automation has led to job polarisation—reducing middle-class jobs while increasing demand for low-skill service work. Workers in routine jobs have faced wage declines in industries undergoing rapid automation. GI-NI research shows for Western Europe that jobs heavily exposed to automation were also vulnerable to rising import competition. Overall, technological change and globalisation have affected many of the same workers in similar ways, especially in wealthier countries.
- **Technological change and migration:** Automation reduces demand for workers in routine-intensive jobs while increasing demand for those in complex, cognitive jobs. This shift leads to greater wage inequality. The impact of automation also depends on immigration patterns. When low- and mid-skilled workers immigrate, they often take routine-intensive jobs, which can further widen wage gaps between native workers and migrants, as well as between low- and high-skilled workers. Research has extensively examined how immigration can depress wages at the lower end of the wage distribution. Meanwhile, advancements in AI may have mixed effects on wage inequality. If AI complements highly skilled workers, it could further widen wage gaps, similar to skill-biased technological change (SBTC). However, if AI replaces skilled labour, it could reduce or even reverse this trend.
- **Globalisation and migration:** As mentioned earlier, the benefits of international trade are not shared equally. In wealthier countries, trade liberalisation increases demand for highly skilled workers, leading to greater wage inequality. This effect can be amplified if immigration increases the supply of low-skilled labour, but can be reduced if more highly skilled workers immigrate. Offshoring and trade in intermediate goods also interact with immigration in shaping labour markets. If migrants face disadvantages in complex tasks, e.g. due to language and cultural barriers, then this affects how jobs are distributed after immigration and offshoring. Data also show that many migrants initially work in jobs below their skill level but gradually move into roles that match their qualifications over time.

Critique of existing policy approach

There are two fundamental weaknesses in the EU's existing policy approach. The first weakness concerns the fact that policy-makers typically consider the issues of technological progress, globalisation and migration in isolation from each other. They also often fail to differentiate between short-run and long-run effects. For example, although the impact of a particular trade policy on international trade is assessed, the consequences for technological progress and migration are generally not taken into account. Take, for example, the existence or introduction of import tariffs on foreign goods and services, as discussed in the context of the trade war launched by US President Trump. These will not only have a dampening effect on trade and increase consumer prices in the short run. They are also likely to slow down technological progress and influence incentives for migration in the longer run.

The second weakness of the existing policy approach is related to the different levels at which political decisions are made and become effective. Trade policy, for example, is entirely in the hands of the EU Commission and applies equally to all EU member states that are part of a customs union. In contrast, policies relating to technology promotion, investment and migration are largely handled at the national level. For example, responsibility for the EU Blue Card (visa for highly qualified workers from third countries) lies with the individual member states, which have specific qualification requirements. That crucial policy areas related to the three transformations are not all handled at the EU level complicates the coordination of efficient policies, and can lead to national policies diminishing the prospects of the EU economy as a whole.

Towards a new integrated policy approach

GI-NI proposes several recommendations to address shortcomings identified for the existing policy approach:

- Policy domains related to the three transformations (trade policy; investment and economic policy; migration policy) must be deeply integrated and coordinated with one another to do justice to their interconnected nature and the spill-overs existing among globalisation, technological progress, and migration in shaping labour market inequalities across EU member states. This would require a radical shift in policy-making structures and approaches, away from strict functional divisions towards goal-oriented (outcome-based) policy-making.
- Policymakers must clearly define, and credibly commit to overarching EU policy goals related to, among other things, innovation and productivity, immigration and labour mobility, and labour market inequalities. A focus on tangible, measurable outcomes and close alignment between policy measures and goals is facilitated by a goal-oriented policy-making structure (see above).
- Policymakers must centrally and visibly coordinate and harmonise large parts of the rules on migration policy and labour mobility, as well as investment and technology promotion at the EU level, in order to ensure efficient coordination of the policy domains relevant to the three transformations. EU policymakers must define a transparent and binding framework for national policymakers to implement tailored national policies that must not undermine the EU's previously defined overarching goals (see above).
- Policymakers must implement a marked shift in migration policy at the EU level, focusing on the attraction of highly-qualified individuals to foster innovation and trade, and reduce downward pressure on wages of less-skilled individuals. EU policymakers must unify entry requirements along with work visa rules to position the EU labour market as a globally competitive and unified labour market, allowing for full labour mobility between EU member states after entry.
- Policymakers must understand, articulate and address the trade-off between short- and long-run gains (and pains) associated with the three transformations and their interactions. Avoiding short-run pains associated with labour market adjustments by erecting barriers to trade and migration, for example, jeopardises the long-run gains through lost innovation and productivity improvements.

Further reading

Publications from the GI-NI project can be found on the website: gini-research.org.

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