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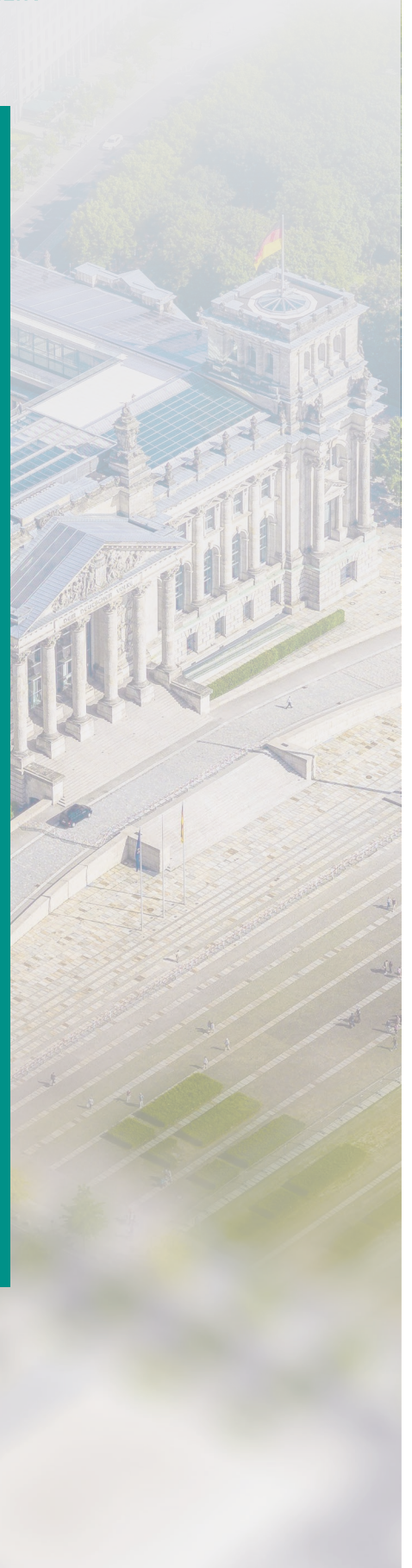
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AT A GLANCE

More Europe: 13 Challenges, 13 Solutions

By Alexander Kriwoluzky et al.

- In this issue, over 20 DIW Berlin researchers identify Europe's areas for improvement and suggest solutions
- A pact for innovation, more stringent merger control, and targeted industrial development would promote competitiveness and convergence
- New fiscal regulations, a stabilization fund, and more efficient insolvency procedures would make Europe more stable and social
- Europe must work together to tackle global challenges such as the environment and migration with a 100 percent renewable energy system, a climate pledge, and an EU plan for Africa
- Europe can successfully manage internal and external risks with more uniform conditions and a united front

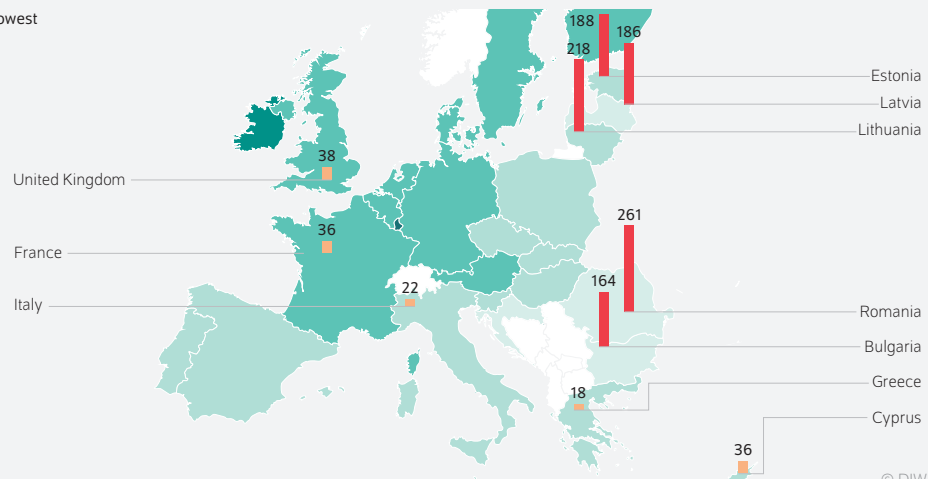
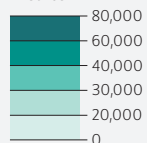
The level of prosperity across the EU is very consistent, but has converged significantly since 2000

GDP per capita 2017 in euros and percentage change since 2000

The countries with the five highest and five lowest percentage changes since 2000

■ High percentage change
■ Low percentage change

GDP per capita 2017 in euros



Sources: Eurostat, authors' own calculations.

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FROM THE AUTHOR

Three Ps are currently the greatest risks facing Europe: populism, protectionism, and paralysis. The European elections are an opportunity to change direction. We need more Europe in important areas in order to be able to react to challenges effectively—with a forward-thinking strategy focusing on Europe's strengths.

— Alexander Kriwoluzky —

MEDIA



Audio Interview with A. Kriwoluzky (in German)
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Europe must focus on its strengths

By Marcel Fratzscher and Alexander Kriwoluzky

Europe is at an important crossroads. Rarely in the past 70 years have there been such existential risks, both within Europe and externally. The economic effects of the financial and sovereign debt crisis are still being felt in many European countries: crisis-ridden banks, high youth unemployment, and growing divergences within Europe. Increasing competition from Asia as well as the US government's protectionist trade policy are adding to the pressure.

There is also social polarization in addition to the economic dimension of the crisis. Europe is experiencing a massive demographic ageing, populism is on the rise in politics, and far too little is happening in Europe and its member states to counteract climate change and to protect the environment. This lack of action against climate change has inspired youth to take part in the "Fridays for Future" demonstrations across Europe. Moreover, Europe is continuing to receive an increasing number of refugees.

The greatest risks currently facing Europe are populism, protectionism, and paralysis. A retreat into isolationism seems to be an easy answer to Europe's problems taken straight out of the 19th century. Many politicians are making Europe the scapegoat for their own national mistakes. While the United States is acting increasingly protectionist, it is by no means alone. Many states in Europe are also trying to give domestic companies an advantage by means of a national industrial strategy, regulation, or domestic economic policies regarding energy, digitalization, migration, or direct investments. Many urgently needed reforms have slowed down or come to a standstill. In particular, the restructuring of the monetary union—by completing the banking and capital market union, introducing smarter fiscal policy rules, or strengthening European institutions—is being delayed or blocked. Despite the risks and challenges present, it is important to note that Europe has significantly contributed to stability, prosperity, and peace over the past 70 years with its single market and single currency.

The 2019 European elections on May 26 are a great opportunity to change direction to ensure Europe's shared progress continues. What must the European Union and its member states do to stop divergence and polarization so Europe can continue to progress together? How can the EU as a whole stabilize its economy and succeed in global competition with China and the US? How can Europe live up to its global responsibilities? These central questions—some of which we will further investigate in this Weekly Report—will arise after the European elections. However, we are not offering a single, all-encompassing answer for the future of Europe. Rather, in this Weekly Report, over 20 DIW Berlin scientists analyze specific problems and present their visions and strategies for the future.

The thirteen challenges presented here can be grouped into three thematic areas. Since the establishment of the European Economic Community, policy has focused on the common internal market, maintaining favorable trade relations as a community, and promoting weaker economic regions. In the area of "Competition and Convergence," DIW Berlin's analyses show that Europe can only prevent the negative consequences of the US government's protectionist trade policy by adopting a united stance against it. Furthermore, the analyses examine the extent to which a "Pact for Innovation" and an industrial policy that accounts for the differing regional conditions for industry contribute to ensuring that Europe's regions do not continue to diverge economically and that Europe is better able to cope with global industrial change. Another report underlines the importance of an independent European competition authority that effectively enforces merger control in order to ensure competition in the internal market benefits European consumers.

In order to secure and equitably distribute future prosperity, Europe must provide answers to the challenges we face in the area of "a stable and social Europe." Five suggestions for a new fiscal package, such as new spending rules, could

enable more flexibility during downturns and act countercyclically. To better combat the consequences of economic crises, Europe needs a stabilization fund, which, similar to insurance, grants money to member states during downturns and is paid into by member states when the economy is strong, with the amount based on their risk classification. In addition, an integrated equity market can help mitigate the effects of economic fluctuations. More efficient insolvency rules could be the key to further integrating the capital markets. Gender equality is another important social aspect in Europe. Gender equality on supervisory boards only exists in countries with a binding gender quota, and the difference in employment history between men and women is reflected in the pension gaps that have been documented across Europe. It is therefore necessary to establish Europe-wide rules to end the systematic discrimination of half the European population. As education is an indispensable prerequisite for Europe's prosperity, schools should integrate an updated education platform modeled after European universities to be able to respond to new challenges such as digitalization at the earliest possible stage of education. The EU should provide funds for the independent and external evaluation of schools.

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The third area focuses on the global responsibilities that European countries must face together, including climate policy and energy supply. In order to reach climate targets, the energy industry must switch exclusively to renewable energies. This is technically possible and economically worthwhile if the market conditions are right throughout Europe. A climate deposit as a levy on the use of emission-intensive raw materials could drastically reduce CO₂ emissions without having to fear industry relocating abroad. Migratory pressure from Africa is another one of the global challenges Europe must face together. Researchers at DIW Berlin argue that a single country such as Germany cannot do enough with its "Marshall Plan with Africa," but European countries could certainly be successful if they work together.

So, what direction should Europe take? Europe should strive towards achieving "more Europe" in important areas to be able to react to challenges effectively—with a forward-thinking strategy focusing on Europe's strengths.

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Europe should address trade conflict with the U.S. in unison

By Malte Rieth

ABSTRACT

- Estimations show that in the course of the steel trade war, share prices of American companies benefited upon the announcement of higher tariffs
- Announcements of higher tariffs between China and the U.S. caused share prices to tumble—globally and in the U.S.
- Tariff related announcements involving EU goods have not affected share prices so far
- If the EU addresses the issue in unison and with determination, as China is doing, share prices in the U.S. could be affected and keep the U.S. president from increasing tariffs

The global economic environment is becoming tougher and tougher for German and European companies. In addition to uncertainty about which course Brexit will take and the sluggish turn global growth has taken, the trade conflict with the EU initiated by the U.S. will play a key role in shaping the business cycle in the near future.

So far the U.S. government has incited four trade conflicts. First, it imposed protective tariffs on all imported solar panels and washing machines. Only China and Korea reacted with countermeasures. Next, the U.S. imposed import duties on steel and aluminum from the rest of the world. Alongside China and Canada, the EU adopted countermeasures and taxed the import of selected American goods. In the third round, as a reaction to what it viewed as unfair trade practices and a threat to national security, the U.S. government imposed customs duties on Chinese imports. The government in Beijing immediately reacted with countermeasures to protect the domestic economy. That trade conflict now appears to be devolving.

But a fourth conflict, which involves the export of European automobiles and car parts to the U.S., seems to be brewing. Due to the automotive industry's important role in Europe, an increase in U.S. customs duties would burden exports, investment, and the labor market in many EU member states and in Germany in particular. What can Germany and the EU do to prevent this?

Some lessons can be learned by looking at the most recent conflicts' effects on financial markets. An analysis of stock returns on the days when the conflicting parties announced (or implemented) higher customs duties shows that the steel and China conflicts have had very different impacts until now.¹ When the U.S. raised the customs duties on steel and aluminum, the return on U.S. stocks increased on average (Table). While the effect was not significant for globally active corporations (as reported in the Dow Jones Index of the largest industrial companies, Column 1), companies that are more oriented to the domestic economy seemed to benefit most (as reported in the broad Russell 2000 index, Column 2). For European companies, the measures are primarily estimated to have negative effects, although the effects

¹ The announcement data in the analysis is based on Chad P. Bown and Melina Kolb, "Trump's Trade War Timeline: An Up-to-Date Guide" (2019) (available online, accessed on April 11, 2019).

Table

How selected stock indexes reacted to announcements of customs duty increases

Daily Returns in percent

Modell	1	2	3	4	5	6
Dependent variables						
Change in stock index	Dow Jones	Russel 2000	MSCI Germany	MSCI France	MSCI Italy	MSCI China
Indicator variables						
Higher U.S. steel duties	0.237	0.302*	-0.174	-0.127	-0.388	0.247
Customs duty level of U.S. and China rises	-0.319*	-0.310*	-0.086	-0.091	-0.331	-0.589**
Customs duty level of U.S. and EU rises	-0.014	0.012	-0.079	0.008	0.109	-0.176

Note: The models were separately estimated with one of the three indicator variables. All models are given a linear time trend and a constant: N = 493. Significance level: * p < 0.1, ** p < 0.05

Source: Own calculations based on the Peterson Institute for International Economics and Bloomberg.

Legend: When the U.S. or China announced higher duties on imports from the other country respectively, the stock indexes in the U.S. (Columns 1 and 2) fell significantly by 0.3 percent. They did in China as well (Column 6) by 0.6 percent.

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are not statistically significant (see Columns 3 to 5). Perhaps investors anticipate that U.S. customs duties will redistribute foreign producer surplus to U.S. companies oriented to the domestic market and to the U.S. government in the form of higher customs revenues.

A much different picture results for the conflict between the U.S. and China. Announcements that imply an increase in the bilateral customs duty level resulted in stock price declines in all of the countries examined. Above all, on those days the stocks of Chinese companies lost value tremendously (see Column 6). Unlike the steel conflict, the return on U.S. stocks of companies—both globally and domestically oriented—also fell.

Apparently, the conflict with China is being assessed much differently than the steel conflict. This could be a result of the size of the conflict or its dramaturgy. In the eyes of investors, two equally strong opponents—ones that speak in strong unison and immediately apply countermeasures in reaction to the actions of others—are taking each other’s measure in the first conflict. The effects on the global business cycle and company profits are predicted to be negative for all sides. On the contrary, the stock market sees the steel conflict as advantageous to the U.S. In this case, a more dominant actor would see a number of typically small countries that only react diffusely and—if at all—only mildly.

Ultimately, looking at the mechanics of the conflict between the U.S. and the EU does not yield a clear picture. The coefficients are all insignificant. The estimation results could teach the EU a lesson, however. Until now, the EU has not been able to emulate China by being powerful and united when dealing with the United States. If the EU succeeds at doing so, this could have a significant effect on the stock markets, as is the case with China. In turn, this has the potential to change the mind of a U.S. president who has declared the level of the leading U.S. stock indexes to be the barometer of his success. It was perhaps not only chance that in the

wake of the dramatic losses on Wall Street at the end of last year, the U.S. government announced it would not trigger the next escalation level against China. In any case, much speaks in favor of Europe demonstrating unity in the trade conflict with the U.S.

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Keywords: Trade policy, USA, EU, China, tariffs, stock returns, event study

European merger control: more is better

By Tomaso Duso

ABSTRACT

- Market concentration often leads to unnecessarily high prices and reduced innovation
- European merger control positively affects competition and productivity, though not yet perfectly effectively
- In times of increased market concentration, merger control needs to be enforced even more stringently, especially in digital markets
- Attempts to weaken merger control must be vigorously opposed

Competition policy has been a cornerstone of the European Union since the Treaty of Rome, effective January 1, 1958, established the European Economic Community. The founding member states believed in leaving much of the authority in competition matters to European institutions, since effective competition was considered vital to the creation of a single European market. To support these objectives, the European Commission's (EC) Directorate-General for Competition (DG) received unparalleled independence and enforcement powers in this area. Although the 28 EU member states also have national competition authorities, such as the *Bundeskartellamt* in Germany, the EU has sole responsibility for EU-wide competition issues. Accordingly, it can block or remedy anti-competitive mergers between companies, even if they are not European; impose heavy penalties for the abuse of market power; punish market cartelization; and control state aid if public funds used by member states are being spent in a manner hindering competition.

Merger control plays a special role in this setting. It is the only area where competition rules are enforced *ex-ante*, as the EC must first clear all major mergers before they are consumed. Consequently, merger control has important implications for other areas of competition law. If the EC fails blocking anti-competitive mergers, it may become more difficult to control abusive behavior by these merged entities in the future.

Although many acclaim the quality and independence of European competition rules and institutions,¹ competition policy, and merger control in particular, have come under criticism from different angles in recent years. Some believe merger control is too aggressive, as mergers are supposed to mostly be pro-competitive, result in important synergies, and allow large national or European companies to remain globally competitive. Therefore, competition authorities should intervene less and make it easier for national and European champions to emerge. Along these lines, various German and French politicians as well as several industrial firms heavily criticized the decision to prohibit the merger between Alstom and Siemens in spring 2019.

In contrast, others find competition policy to be too lax worldwide. This slack enforcement of merger control would be one

¹ Cf. Germán Gutiérrez and Thomas Philippon, "How EU markets became more competitive than US markets: a study of institutional drift," Working Papers 24700, National Bureau of Economic Research, 2018.

of the main reasons concentration is increasing in many markets.² Competition authorities should therefore more actively combat the emergence of champions. For example, the permitted takeovers of Instagram and WhatsApp by Facebook have been regarded as critical mistakes.

The question is to what extent these two opposing views on competition policy are justified. Looking at the data, it does not seem that the EC is particularly interventionist. Between 1990 and 2014, the EC reviewed exactly 5,169 mergers. Only 19 were not approved by the EC, while the companies themselves withdrew five others after a long assessment, what is considered to be a “virtual” prohibition. In total, the EC prohibited less than 0.5 percent of all cases. The EC imposed remedies on 239 cases (4.6 percent) during phase-1 and in only 104 cases during an in-depth phase-2 investigation (2 percent) (Figure).³

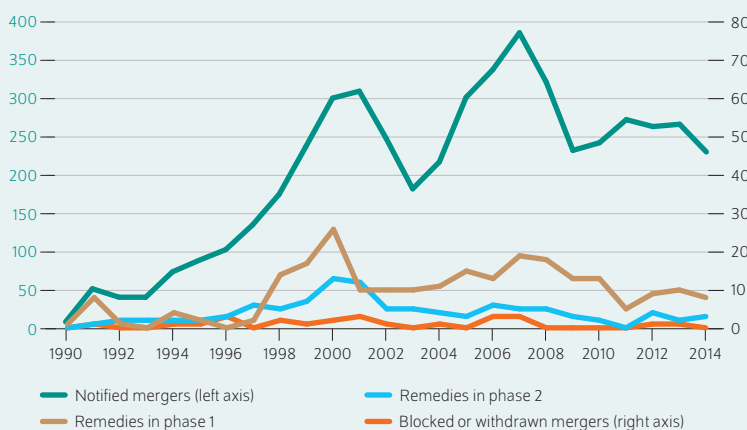
At the same time, studies indicate that market concentration has grown not only in the United States and Asia, but in Europe as well,⁴ and that the markups and profits of companies in European countries have increased significantly, although less than in the United States.⁵

The results of research conducted at DIW Berlin over the past ten years might help shed light on these issues. It shows that the EC indeed did not always correctly enforce merger control between 1990 and 2001.⁶ The EC approved some anti-competitive mergers while blocking or imposing remedies on other unproblematic mergers. Particularly frequently, the EC incorrectly enforced merger control on mergers involving companies from small European countries. Indeed, at the beginning of the 2000s, the European Court of Justice revised three EC decisions in light of the fact that the EC had failed to correctly apply economic evidence when reaching its decision.⁷ For this reason, too, European merger control underwent a comprehensive reform in 2004. An empirical study of this reform shows that the EC made fewer mistakes after its implementation. In addition, further studies have established and confirmed that merger prohibitions and remedies, in particular during the phase-1 investigation, have become somewhat more effective and had a deterrent effect on future mergers.⁸ Current DIW Berlin research

Figure

European merger control since 1990

Number of notified mergers (left axis), number of rejected or remedied mergers (right axis)



Sources: EU Commission, authors' own calculations.

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The number of mergers rejected or withdrawn is negligible.

is evaluating European merger control and identifying the main determinants of EC decisions and their development over time.⁹

This extensive research shows that while merger control positively affects competition and productivity, room for improvement remains.¹⁰ To be more effective and continue deterring anti-competitive behavior, the EC should be more consistent in blocking problematic mergers and imposing more severe remedies during phase-1. This is particularly true in digital markets, where hundreds of takeovers of small start-ups by large tech giants have gone through without any competition review. With that in mind, the recent proposals by the German and French Ministers for Economic Affairs attacking the independence of the DG and calling for weaker European merger control do not seem to be well placed.

² Cf. Guitérrez and Philippon, "How EU markets became more competitive than US markets."

³ Cf. Pauline Affeldt, Tomaso Duso, and Florian Szücs, "EU Merger Control Database: 1990–2014," *DIW Data Documentation* 95 (2018) (available online).

⁴ Cf. OECD, *Market concentration, DAF/COMP/WD 46* (2018).

⁵ Cf. Jan De Loecker and Jan Eeckhout, "Global market power," Working Papers 24768, National Bureau of Economic Research, 2018.

⁶ Tomaso Duso, Damien J. Neven, and Lars-Hendrik Röller, "The Political Economy of European Merger Control: Evidence Using Stock Market Data," *The Journal of Law and Economics* 50, no. 3 (2007): 455–489.

⁷ This was the case with the Airtours/First Choice, Schneider/Legrand, and Tetra Laval/Sidel mergers.

⁸ Cf. Tomaso Duso, Klaus Gugler, and Florian Szücs, "An Empirical Assessment of the 2004 EU Merger Policy Reform," *The Economic Journal* 123, no. 572 (2013): F596–F619; Tomaso Duso and Florian Szücs, "Die Ökonomisierung der Europäischen Fusionskontrolle: eine Evaluierung," *DIW Wochenbericht* no. 29 (2014): 699–701 (in German; available online); and Joseph Clougherty et al., "Effective European Antitrust: Does EC Merger Policy Involve Deterrence?," *Economic Inquiry* 54, no. 4 (2016): 1884–1903.

⁹ Cf. Pauline Affeldt, Tomaso Duso, and Florian Szücs, "Twenty-five years of European merger control," *DIW Discussion Paper 1997* (available online).

¹⁰ Cf. also Tomaso Duso, "Eine bessere Wettbewerbspolitik steigert das Produktivitätswachstum merklich," *DIW Wochenbericht* no. 29 (2014): 687–697 (in German; available online); Paolo Buccirossi et al., "Competition Policy and Productivity Growth: An Empirical Assessment," *The Review of Economics and Statistics* 95, no. 4 (2013): 1324–1336.

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Keywords: Merger Control, Competition Policy, European Commission

EU industrial policy must utilize and connect heterogeneous regional potentials

By Martin Gornig and Axel Werwatz

ABSTRACT

- Digitalization is changing the industrial sector and introducing new global challenges
- EU industrial policy aims to counter these challenges by increasing industry's share of value added
- DIW Berlin analyses show that selected regions with a low share of industry can play an important role in the future
- These include metropolitan areas due to the high number of qualified potential workers, tourism regions due to good infrastructure, and rural regions in Southeastern Europe due to cost advantages

EU member states are calling for a more proactive EU industrial policy.¹ New technological developments such as digital platforms are making it easier for large companies emerging in the American and Asian mass markets to gain competitive advantages. At the same time, there exists the future risk of China and the USA strategically using their powerful position in the IT sector to the detriment of European industry—for example, if Google or Amazon were to enter the automotive sector.² An increased need for industrial policy action had already been determined after the financial and economic crisis of 2008/2009.³ In early 2014, the EU Commission developed a package of economic policy programs for a European industrial renaissance. The objective is to increase industry's (manufacturing industry including energy and mining) contribution to GDP from 18 percent in 2009 to 20 percent by 2020.⁴

What does this objective mean for Europe's regions? Are there regions with high potential for increased industrialization where certain action needs to be taken? To estimate the expected share of industrial production for each region, a regression model based on a logistic trend function was used. The logistic trend function captures the general tendency of the share of industry. The regression model also accounts for the impact of national circumstances like suprarregional infrastructure and the national education and innovation systems as well as regional economic factors such as geographical location and population density.⁵

The results confirm that regional economic influences indeed play an important role. The longer the transport routes to the core of the EU—which extends from northern Italy via the Rhine to southern England—the lower the expected share of industry of a region. At the same time, the expected industrial share is found to decrease slightly as population density increases. In addition, the country-specific institutional

¹ European Political Strategy Centre, *EU Industrial Policy after Siemens-Alstrom, Finding a new balance between openness and protection* (2019).

² Bundesministerium für Wirtschaft und Energie, *Nationale Industrie Strategie 2030. Strategische Leitlinien für eine deutsche und europäische Industriepolitik* (2019).

³ Philippe Aghion, Julian Boulanger, and Elie Cohen, "Rethinking industrial policy," Bruegel Policy Brief No. 4 (2011); Joseph E. Stiglitz, Justin Yifu, and Celestin Monga, "The rejuvenation of industrial policy," Policy Research Working Paper No. 6628, 2013.

⁴ European Commission, *For a European Industrial Renaissance, Brussels 14 final* (2014).

⁵ Martin Gornig and Axel Werwatz, "The potential for industrial activity among EU regions—an empirical analysis at the NUTS2 level," FORLand Working Paper, Humboldt University (forthcoming, 2019).

influences also exert a statistically significant influence on the expected industrial share of a region.

On the basis of this analysis, three types of regions were identified amongst the 20 European regions in which the actual industrial share falls considerably short of their expected industrial share (Figure). The first and most frequently occurring type among these “under achievers” with very low industrial shares are high-income, high-density regions, primarily capitals. Prague, Bratislava, Budapest, Rome, and Stockholm, among others, show the largest negative deviations from their expected industrial share. However, other highly developed regions such as Malmö (Sweden), Surrey (UK), Kent (UK), Namur (Belgium), and Darmstadt (Germany) are also falling short of the expected industrial share. In Malmö, for example, the expected industrial share of around 20 percent is double the actual industrial share of ten percent.

The second type encompasses regions with large tourism sectors. This includes well-known Southern European regions such as the French Riviera, the Algarve (Portugal), the Ionian Islands (Greece), Liguria (Italy), and the Aosta Valley (Italy) as well as Mecklenburg-West Pomerania in northern Germany. Mecklenburg-West Pomerania currently has an industrial share of just under 12 percent, but 18 percent is expected according to the national and regional economic circumstances.

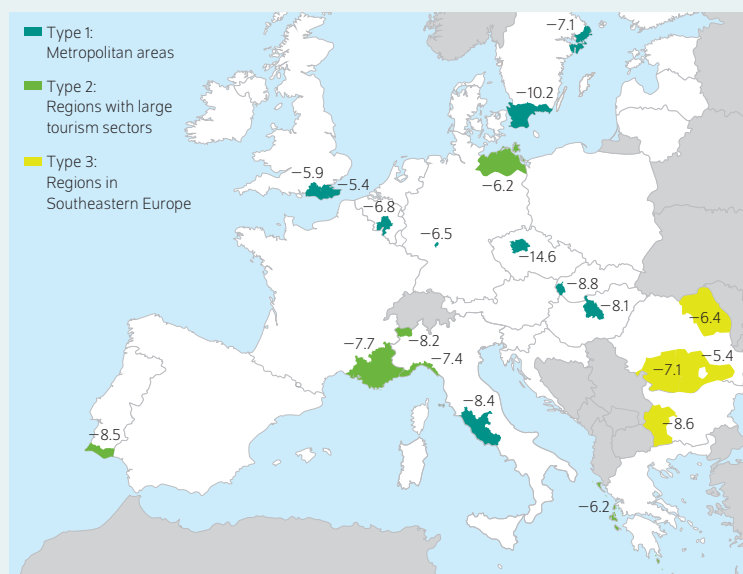
The third type consists of regions in Southeastern Europe. Here the negative deviation from the expected share of industry, especially in regions outside the capitals, is very large. Regions with the highest negative deviation include the Yugozapaden region southwest of Sofia (Bulgaria) and three rural regions in Romania.

As the three types of regions are very heterogeneous, it is not realistic to expect one common, ambitious industrial policy target of 20 percent to be equally effective across the EU in boosting regional industrial activity. Hence, while it remains important to step up European technology programs, create common technology standards, and improve financing conditions, it is also important to develop a “regionalized” industrial policy strategy that takes account of the different regional potentials (such as research infrastructures, human capital, and cost advantages).

EU research programs, for instance, could work to strengthen the knowledge base in the above-mentioned capital regions in particular. In these highly urban regions, this knowledge potential should be exploited more intensively for modern, smaller-scale industrial developments.⁶ At the same time, however, industry will be competing for scarce space in these high-density areas, and land-use competition with services and housing will have to be better resolved in these metropolitan areas than it is today.

Figure

Twenty European regions with very low industrial shares
Deviation of actual industrial share from expected industrial share in percentage points



Sources: Eurostat, authors' own calculations.

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In particular, some capital city regions, tourist hotspots, and rural regions in Southeastern Europe are falling short of the expected industrial share.

Regarding the tourism regions with less-than-expected industrial activity, it is important to continue to maintain their unique character that attracts visitors. However, industry’s tendency for digitalization and decarbonization can open up new opportunities to develop clean, small-scale industries on the outskirts of tourism hotspots. As a rule, these regions already have effective transport infrastructures and attract well-trained mobile workers who boost the growth of modern industry.

The case of rural regions in Southeast Europe outside the capital regions, on the other hand, illustrates the importance of solid infrastructure for integrating such regions into industrial value chains. These regions will only be able to exploit their cost advantages—which are significant in some production stages—if massive investments are first made into their infrastructure.

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JEL: L52, R11, O52

Keywords: Industrial policy, regional growth, Europe

⁶ Martin Gornig et al., "Industrie in der Stadt: Wachstumsmotor mit Zukunft," *DIW Wochenbericht*, no. 47 (2018) (in German; available online).

“Pact for Innovation” to promote the EU’s major aim of convergence

By Alexander S. Kritikos

ABSTRACT

- Economic convergence is a major aim of the EU. Innovation and investment in economically weaker regions are key steps to foster convergence
- Public institutions and the regulatory environment for investments differ substantially across EU member states and increase economic disparities
- Pact for Innovation: structural funds with a strong focus on innovation; access to funding only granted if structural reforms are implemented
- This should ultimately harmonize the regulatory environment and support convergence through growth

When selecting a business location, three criteria are decisive for investors, innovators, and entrepreneurs: the quality of public institutions, including the efficiency of administrative structures or of jurisdiction when enforcing contractual claims; the design and predictability of the tax system; and access to external financing. Innovators are also interested in the quality of the innovation system.¹ For innovative companies competing globally, rapid market entry is decisive, especially when it is about entry into “winner-takes-the-most markets”. With much at stake, they are not willing to invest additional time, effort, and money to finance bureaucratic activities, and then still entering the market too late.²

In the EU, the regulatory environment for founding, operating, and closing a firm are patchwork. Public institutions and innovation systems also vary greatly. For example, the World Bank’s Ease of Doing Business Index clearly shows that the Scandinavian and Baltic countries are particularly business-friendly, followed by Central European countries like France, Germany, Austria, and Poland. While some countries, like Spain, are clearly improving in recent years, the quality of public institutions is much poorer in other countries, like Italy and Greece.³ There is also a north-south disparity with respect to the innovation system⁴ and, unlike the business climate, a west-east disparity (Figure).

Gross value added and employment do develop better in countries that offer a better regulatory environment and innovation system. Since the 2000s, the diverging economic trends within the EU have been intensified by migration of innovators from Greece, Italy, Portugal, and Spain to countries with a more attractive regulatory environment.⁵ That

¹ Of course, in addition to these criteria, there are others, for example, labor market regulations, that also influence the selection of a location.

² Benedikt Herrmann and Alexander S. Kritikos, “Growing out of the Crisis: Hidden Assets to Greece’s Transition to an Innovation Economy,” *IZA Journal of European Labor Studies*, 2:14 (2013).

³ For example, on average, it takes over four years for claims to be enforced under civil law in Greece. In Italy, court cases like this take more than three years, devouring an average of 23 percent of the contractual claim. In Lithuania, cases like these only take one year. See World Bank, *Ease of Doing Business (2019)* (available online, accessed on April 11, 2019; this applies to all other online sources in this report unless stated otherwise).

⁴ Measures are based on indices such as the Global Innovation Index, European Innovation Scoreboard, and the EU Commission digitalization index, relevant for knowledge-intensive services. These indices provide for instance information about R&D investments to generate knowledge and other institutional conditions for innovation.

⁵ See Kyriakos Drivas et al., “Mobility of Highly-Skilled Individuals and Local Innovation and Entrepreneurship Activity,” *MPRA Discussion Paper*, (2018) (available online).

means there is an increasing competition between European regions for business locations. Upon realizing this, Spain implemented significant structural reforms that stopped the exodus of innovators from this country. Knowledge-intensive services that rely on good conditions⁶—like in the new start-up hotspot in Barcelona⁷—are contributing to Spain’s recent growth rate.⁸ Other EU member states—like Italy or Greece—are lagging: as policy makers ignore the competitive landscape, their economies stagnate.⁹

To help and support more EU member states, to work toward harmonization, the EU needs a new prestige project, a “Pact for Innovation”. Participating countries would make a pact that consists of three components. First is to further develop structural funds, turning them toward sustainable investments into national and regional innovation systems. Monies should be used to finance research and development or to further expand the digital infrastructure. Second, access to the funds is tied to implementing reforms that move toward a better regulatory environment and more efficient public institutions. Under the pact, national governments and the EU will agree to a legally binding roadmap to achieve the primary goal of regulatory harmonization. This includes incentives for structural reforms, with access to further investment funding dependent upon implementing reforms and documenting its realization. Third, member states would receive advice and support from the EU throughout the process of developing more efficient public institutions.¹⁰

It will require another massive political effort between the EU Commission and national governments, to jointly agree on such a reform agenda with governments that are willing to proceed with such structural reforms. Countries that have implemented better public institutions and a better regulatory environment, such as the Baltic Republics or Spain, can serve as role models and examples for such an agenda.

⁶ Most innovative start-ups are currently ventured in this industry. Importantly, business founders even react counter-cyclically to business cycles, thus, more of them are started, if an economy is experiencing economic recessions. See Alexander Konon, Michael Fritsch, and Alexander S. Kritikos, “Business Cycles and Start-Ups Across Industries,” *Journal of Business Venturing*, 33 (2018): 742–761.

⁷ See Startup Genome, *Global Startup Ecosystem Report 2018* (2018) (available online).

⁸ Unlike companies in the manufacturing sector, even small firms in the knowledge-intensive services are able to successfully innovate. See Julian Baumann and Alexander S. Kritikos, “The Link between R&D, Innovation and Productivity: Are Micro Firms Different?” *Research Policy*, 45 (2016): 1263–1274; and David B. Audretsch et al., “Firm Size and Innovation in the Service Sector,” *DIW Discussion Paper*, 1774 (2018) (available online). Accordingly, they react relatively quickly to changes in the general conditions.

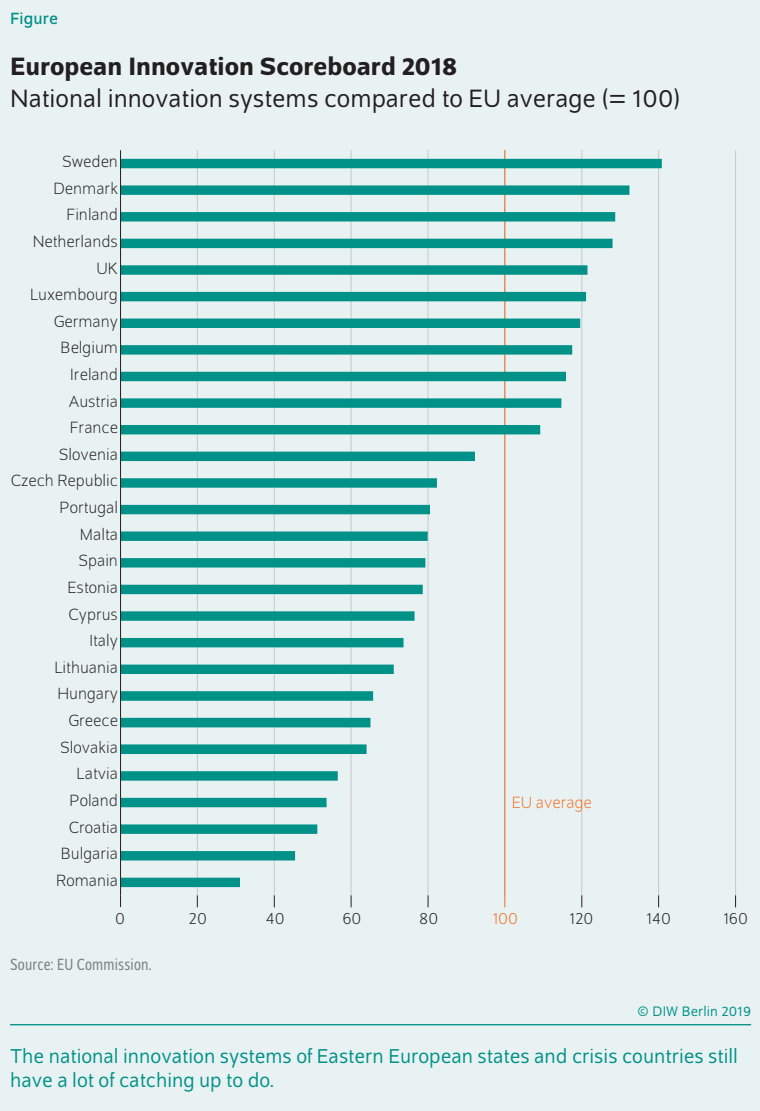
⁹ See Stefan Gebauer et al., “Italy Must Foster High Growth Industries,” *DIW Weekly Report* no. 11/12 (2019): 65–74 (available online) as well as Alexander Kritikos et al. (2018): The Greek private sector remains full of untapped potential. *DIW Weekly Report* no. 29 (available online).

¹⁰ The EU is currently offering on a small scale an institutionalized “structural reform service” to its member states.

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JEL: L2, O3, O4

Keywords: EU, growth sectors, innovation, SME, knowledge-intensive services, regulatory environment, public institutions



New fiscal regulations for Europe

By Marcel Fratzscher, Alexander Kriwoluzky, and Claus Michelsen

ABSTRACT

- Current fiscal regulations worsened the economic situation in the euro area during the financial and sovereign debt crisis
- Regulations that allow more flexibility during downturns and have a countercyclical effect are needed
- Five suggestions for a new fiscal package: new spending rules, subordinated bonds to finance government spending, euro bonds, investment legislation, and new institutions

The overall economic development in the euro area has been disappointing in many respects since the beginning of the global financial crisis in 2008. The economy has been slowing down since the end of 2018, clearly illustrating its dependency on the global economy as well as its vulnerability in the face of uncertainties such as Brexit and an increasingly unpredictable US government.¹

Member state governments have made fundamental mistakes in responding to the financial and economic crisis, often recognizing structural problems too late. The failure to coordinate macroeconomic policy instruments—monetary policy, fiscal policy, and structural policy—proved to be a fatal misstep. The governments often relied far too much on the European Central Bank, whose policies have lowered interest rates on public and private debt and boosted the economy.² In other domestic policy areas, governments pursued negligent or even incorrect economic policies. Successful crisis management is possible, as the United States has demonstrated: between 2009 and 2011, the US government pursued a strongly expansive fiscal policy, with large fiscal deficits,

while fundamentally reforming the banking system. At the same time, the Federal Reserve implemented an extremely expansionary monetary policy.

International consensus is that the fiscal policy in most European countries over the past ten years has been too restrictive and exacerbated the crisis. In particular, austerity policies have reduced the GDP of countries with high private debt levels.³ A significantly more expansionary fiscal policy with a strong focus on public investments and strengthening employment would have brought the euro area out of the crisis much faster and more sustainably. At the same time, implementing such an expansionary fiscal policy was not possible due to the existing Stability and Growth Pact rules and the European Fiscal Compact. Although governments were able to run fiscal deficits of more than three percent, they were only able to do so for a short time and to a limited extent. This situation is not appropriate for implementing structured measures aimed at boosting the economy with fiscal policy instruments, from which Italy in particular would benefit.⁴

European fiscal policy regulations must change. Five concrete reforms should be implemented to address the lessons of the European financial crisis and to make the euro area crisis-proof:

First, the Stability and Growth Pact's rules on new debt should be replaced by a nominal expenditure rule allowing national governments to increase government expenditure each year by no more than the nominal potential growth rate of their economy. This would mean, for example, that Germany would not be allowed to increase government spending by more than three percent annually.⁵ For countries with particularly high national debt, these growth rates should be lower to ensure that all countries will have a national debt below 60 percent of economic output in the long term (Figure). Advantageously, a nominal expenditure rule is significantly more countercyclical than the current rules. When the economy is strong, it restricts expenditure,

¹ Malte Rieth, Claud Michelsen, and Michele Piffer, "Uncertainty Shock from the Brexit Vote Decreases Investment and GDP in the Euro Area and Germany," *DIW Economic Bulletin* no. 32/33 (available online, accessed on April 5, 2019; this applies to all other online sources in this report unless stated otherwise); Michele Piffer and Maximilian Podstawski, "Identifying Uncertainty Shocks Using the Price of Gold," *The Economic Journal* 128/616 (2018): 3266–3284; Projektgruppe Gemeinschaftsdiagnose, *Gemeinschaftsdiagnose Frühjahr 2019: Konjunktur deutlich abgekühlt—Politische Risiken hoch* (2019) (in German; available online).

² Michael Hachula, Michele Piffer, and Malte Rieth, "Unconventional monetary policy, fiscal side effects and euro area (im)balances," *Journal of the European Economic Association* (forthcoming).

³ Mathias Klein, "Austerity and Private Debt," *Journal of Money, Credit and Banking* 49, no. 7 (2017); Philipp Engler and Mathias Klein, "Austerity Measures Amplified Crisis in Spain, Portugal, and Italy," *DIW Economic Bulletin* no. 8 (2017) (available online).

⁴ Stefan Gebauer et al., "Italy Must Foster High Growth Industries," *DIW Weekly Report* no. 7/8/9 (2019) (available online).

⁵ Potential growth of three percent for Germany is comprised of one percent real GDP growth and two percent inflation rate.

as it must be geared toward potential growth rather than the current higher growth rate. During a downturn, there is more room for fiscal maneuver because decreased revenue does not have to lead to a reduction in expenditure.

National regulations that conflict with this spending rule, for example the “debt brake” (*Schuldenbremse*) in the German Basic Law, should be abolished. The debt brake reinforces the negative, procyclical behavior of German fiscal policy and leaves far too little scope for local authorities in particular to implement forward-thinking fiscal policies.

Second, governments should be obliged to finance expenditure beyond the permitted rates of increase through subordinated (“junior”) bonds. These bonds would have to be organized in such a way that in the event of a country’s insolvency, they would only be redeemed after the other senior bonds had first been redeemed. This could mean that these bonds would be automatically renewed or at least partially closed out. Thus, whether the market will add risk premiums to debt-financed overexpenditure depends on governmental credibility. If governments act irresponsibly, the financial markets will demand high-risk premiums and discipline them, a much more effective instrument than the rules laid out by the Stability and Growth Pact and pressure from fellow member states.

Third, the EU should allow the private sector to create synthetic euro bonds in order to increase the supply of safe bonds. This would allow private investors to bundle the government bonds of the euro countries, securitize them, and deposit them as collateral with the ECB. This would both increase the supply of safe bonds and create an anchor of stability, giving all euro area countries a little more time to respond to a crisis. The concern that Germany would have to assume more risks as a result is unjustified; increased stability in the euro area would also benefit Germany.

Fourth, investment legislation stating that governments must not make fiscal adjustments solely at the expense of public investment in education, infrastructure, and innovation should accompany the new debt rules. During the crisis, many governments reduced public investment, thus slowing their own economic growth, including employment and tax revenues, on a sustained basis. In many German municipalities, too, public investment was reduced far too much.

Fifth, European and national institutions must be strengthened to urge governments to take the right action in fiscal policy and create transparency. All member states should be obliged to introduce autonomous and competent national fiscal councils. While many countries already have such fiscal councils, they are usually not independent and have limited resources and opportunities to carry out independent analyses and make recommendations. In addition, the European Fiscal Council should be strengthened and report directly to a European financial commissioner, who should have more autonomy and power than previously.



In addition to modernizing fiscal rules, an important part of European reform, a stabilization fund could help the euro area respond better and faster to future crises and keep costs to the economy and society low.⁶

⁶ See Marius Clemens, “A stabilization fund for a more crisis-proof euro area,” *DIW Weekly Report* no. 16/17/18 (2019).

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JEL: E61, E62, H62, H77

Keywords: Fiscal rules, public debt, countercyclical policy

A stabilization fund for a more crisis-proof euro area

By Marius Clemens

ABSTRACT

- No country in Europe is safe from a recession
- A stabilization fund which member states pay into while the economy is strong and from which they receive grants during downturns can improve welfare in individual euro area countries
- The fund should be structured in such a way that permanent transfers are not possible and high-risk countries pay relatively higher contributions, similar to insurance

The 19 countries in the euro area differ significantly in their economic structures. Economic shocks, such as a demand slump, affect them differently as well, and they are not always able to mitigate these shocks. Monetary policy could play a stabilizing role, but these 19 countries share a common policy instrument. Therefore, the common central bank can only respond to an individual country's recession to a limited extent. National fiscal policy can also act as a safeguard, but only if it has a countercyclical effect, i.e., if the government increases spending comparatively during an economic downturn. In a recession, however, national tax revenues fall while social transfers rises. The euro area countries are not able to incur additional expenditure to stabilize the economy without breaching the euro area deficit and debt criteria.¹ Thus, urgently needed government investments are reduced or completely postponed, further exacerbating the recession. This has been the experience of some European countries in recent years.²

To solve this problem, this contribution proposes a stabilization fund that should ensure that the consumption level in the euro area countries remains stable even during a recession. The fund allows individual countries to hedge against specific shocks and the euro area to become more crisis-proof by sharing risk within the monetary community.³

Member states pay a contribution to the stabilization fund, which in turn pays grants to individual countries in times of crises to provide financial relief (Figure). The aim of the stabilization fund is not to create a permanent and unilateral transfer mechanism, but rather to provide a safeguard in the event of a recession.

The contribution amount is based on economic developments and is paid to hedge against future crises. During an economic downturn (defined using hard indicators), a part of the collective fund's assets is paid out to the affected governments. The funds must be earmarked, for example

¹ For suggestions for fiscal policy reform, see in this issue Marcel Fratzscher, Alexander Kriwoluzky, and Claus Michelsen, "New Fiscal Regulations for Europe", *DIW Weekly Report* no. 16/17/18 (2019).

² Philipp Engler and Mathias Klein, "Austerity Measures Amplified Crisis in Spain, Portugal, and Italy," *DIW Economic Bulletin* no. 8 (2017) (available online; accessed April 8, 2019. This applies to all other online sources in this report unless stated otherwise).

³ Marius Clemens and Mathias Klein, "A stabilization fund can make the euro area more crisis-proof," *DIW Weekly Report*, no. 22/23 (2018) (available online); Guillaume Claveres and Marius Clemens, "Unemployment Insurance Union," *Meeting Paper* 1340, Society for Economic Dynamics (2017).

to be used for training measures for the unemployed or for urgently needed investments. The proposal thus differs in two respects from the European unemployment insurance model currently under discussion.⁴

Importantly, the proposed stabilization fund springs into action relatively automatically, enabling national fiscal policy to be expansionary in the event of a recession. In order for the fund to fulfil its role and to prevent euro area governments from avoiding their responsibility of conducting a sound economic policy (moral hazard risk), the parameters of the fund must adhere to certain rules.

First, permanent, unilateral transfer payments should be prevented. Accordingly, funds will only be paid out if certain thresholds are exceeded, such as if a country's unemployment rate is well above the long-term trend and rising sharply. Countries with increasing, structurally high unemployment rates will not receive payouts, and thus will be incentivized to fix the structural problems on the labor market.

Second, it is advisable to bind the contribution amount to various characteristics, similar to the insurance principle. As the country with the highest number of individuals subject to compulsory insurance, Germany would probably have to pay the largest contribution in absolute terms. However, the amount per capita is likely to be lower than in many other countries because, as with insurance, countries that had a higher risk of crisis in recent years should also pay a higher per capita premium. This should also motivate structural reform efforts.

Third, it makes sense not to tie the funds to a single purpose, as that would remove the flexibility needed to react appropriately to the specific causes of crises. The government of the recipient country in consultation with the fund would need to decide how to respond to the crisis.

According to these principles, a stabilization fund reduces economic fluctuations and is a mechanism for making the entire currency area more crisis-proof in the future.

⁴ Cf. Martin Greive and Jan Hildebrand, "Das sind die Details zu Scholz' Plänen für eine europäische Arbeitslosenversicherung," Handelsblatt Online, October 16, 2018 (in German; available online). In this model, countries receive loans instead of grants and the funds may only be used to help the unemployed.

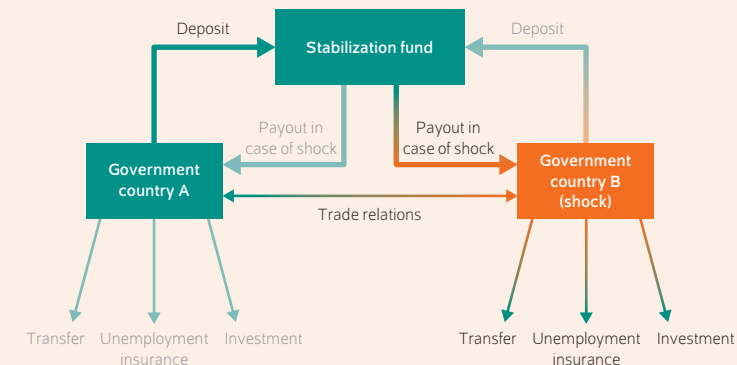
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JEL: E32, E63, F45

Keywords: Monetary union, stabilization funds, fiscal policy

Figure

The effectiveness of an European stabilization fund
Stylized representation



Source: Authors' own depiction; simulation on the basis of a calibrated model featuring two countries unequally affected by an economic shock

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The aim of the stabilization fund is not to create a permanent and unilateral transfer mechanism.

More efficient insolvency regulations could increase financial markets' resilience

By Franziska Bremus and Tatsiana Kliatskova

ABSTRACT

- Integrated capital markets could smooth a large share of country-specific consumption and income fluctuations
- Equity capital play an important role in the process
- Insolvency regulations are a key factor for stronger equity market integration
- Uniform European insolvency regulations are desirable; more efficient regulations on the national level would be an important interim step

If production falls in a certain European country—as the result of a drop in demand, for example—income and consumption will fall as well because the country cannot absorb the entire shock alone. If the effect of the shock is distributed among several countries, the impact on any one country is not as great. The example of the U.S. shows that integrated capital markets make an important contribution to cushioning production fluctuations. While regional shocks are smoothed out by around 60 percent in the U.S. (mainly in credit and capital markets), in the EU the average is only 20 to 40 percent.¹

An important reason for the lack of risk sharing in Europe is that European capital markets are still rather small² in comparison to GDP and nationally fragmented. Investors hold a disproportionately large number of bonds from domestic issuers. Consequently, the “home bias” in many European countries is high,³ and national shocks can only be cushioned through international portfolio diversification to a limited extent. To create more stable financial market structures in Europe, and thereby support income and consumption smoothing, the European Capital Markets Union aims at gradually removing barriers to integration.⁴

International equity capital investment is particularly effective at smoothing out country-specific fluctuations⁵ since it tends to be longer term than investment in debt and income fluctuations are directly absorbed between investors and capital-acquiring countries by adjusting dividend payments, for example. On the contrary, the integration of bond and credit markets can actually reinforce fluctuations.⁶ For this

¹ See European Central Bank, *Economic Bulletin*, no. 3/2018 (2018) (available online, accessed April 8, 2019; this applies to all other online sources in this report unless stated otherwise); and Michela Nardo et al., “Risk sharing among European Countries,” *JRC Technical Reports*, (2017).

² See Franziska Bremus and Tatsiana Kliatskova, “Rechtliche Harmonisierung kann Kapitalmarktintegration erleichtern,” *DIW Wochenbericht*, no. 51/52 (2018) (in German; available online).

³ European Central Bank, *Financial Integration Report* (2018) (available online).

⁴ See Jens Weidmann and François Villeroy de Galhau, “Auf dem Weg zu einer echten Kapitalmarktunion,” *Les Echos* and the *Frankfurter Allgemeine Zeitung*, April 4, 2019 (in German; available online).

⁵ Bent E. Sørensen et al., “Home bias and international risk sharing: Twin puzzles separated at birth,” *Journal of International Money and Finance* 26(4) (2007): 587–605.

⁶ European Central Bank, *Economic Bulletin*; and Franziska Bremus and Claudia M. Buch, “Capital Markets Union and Cross-Border Risk Sharing,” in *Capital Markets Union and Beyond*, eds. Franklin Allen et al. (Cambridge, MA: MIT Press, forthcoming); and Ayhan M. Kose, Eswar S. Prasad, and Marco E. Terrones, “Does financial globalization promote risk sharing?” *Journal of Development Economics*, 89(2) (2009): 258–270.

reason, the integration of equity capital markets in particular should be advanced.

Alongside differences in regulations for financial services as well as tax and contract law, heterogeneous and inefficient insolvency regulations have proven to be a significant obstacle to integrating European capital markets.⁷ Varying insolvency regulations make it more difficult to assess the risk of a capital investment in a foreign country, rendering such investments less attractive. Low efficiency is reflected in low repayment rates in the case of bankruptcy and/or long repayment periods, making investment riskier.

Although the insolvency regulations in many EU states have been reformed and improved in recent years, the OECD indicators show considerable heterogeneity within the EU (Figure). While the insolvency regulations in the United Kingdom have been relatively efficient since 2010, Hungary and Estonia are the two lowest-ranking states.

An empirical analysis for the 2010 to 2016 period confirms that inefficient insolvency regulations are a significant obstacle to the integration of the stock and bond markets.⁸ In other words, countries with more efficient insolvency regulations receive higher levels of cross-border investment. Preventive measures are especially important for foreign investment. Foreign investors invest more in equity capital in countries with pre-insolvency regimes, i.e. measures that take effect *before* bankruptcy, early warning mechanisms for entrepreneurs, or special insolvency regulations for small and medium-sized enterprises.

Even though it will be difficult to harmonize insolvency regulations within the EU due to country-specific legal systems, quality improvements on the *national* level, particularly in the area of preventive measures, would be a promising step to foster the integration of the capital markets. In addition, more transparency regarding country-specific regulations should be created by making comparable information centrally available—on the hierarchy of claims in bankruptcy cases, for example. This would not only advance integration and market-based risk sharing, but also remove some bad loans from bank balance sheet and thereby pave the way for completing the Banking Union.

⁷ The Giovannini Group, Second Report on EU Clearing and Settlement Arrangements (2003) (available online); Bremus and Kliatskova, "Rechtliche Harmonisierung"; and Diego Valiante, "Harmonising Insolvency Laws in the Euro Area," *CEPS Special Report*, no. 153 (2016).

⁸ Tatsiana Kliatskova, "Cross-border capital market integration and insolvency regimes." Working paper, 2019.

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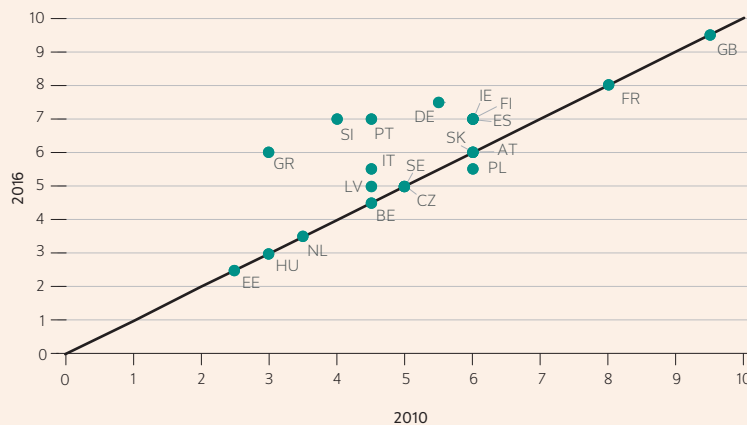
JEL: E02, F21, G15

Keywords: Capital market integration, legal harmonization, institutional differences

Figure

Efficiency of insolvency rules in selected EU countries

OECD index, inverted (10 = best), development between 2010 and 2016 (above the diagonal = improvement; on the diagonal = remained the same)



AT = Austria, BE = Belgium, CZ = Czech Republic, DE = Germany, EE = Estonia, ES = Spain, FI = Finland, FR = France, GB = United Kingdom, GR = Greece, HU = Hungary, IE = Ireland, IT = Italy, LV = Latvia, NL = Netherlands, PL = Poland, PT = Portugal, SE = Sweden, SI = Slovenia, SK = Slovakia

Sources: OECD, authors' own depiction.

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Excluding Poland, the efficiency of insolvency rules has improved or remained the same in all countries. It remains, however, very consistent across the board.

Binding quotas can help achieve gender equality in top decision-making bodies

By Katharina Wrohlich

ABSTRACT

- Gender equality is a deciding factor for economic growth in the European Union
- Proportion of women on executive committees of publicly traded companies is an important component of gender equality policies
- Proportion of women on executive committees is significantly higher in member states with a binding quota than in those without
- A binding EU-wide regulation could promote gender equality in all member states

Gender equality is one of the EU's core values, an important political objective, and, according to the European Commission, an important driver for economic growth.¹ The main priorities in the EU's *Strategic Engagement for Gender Equality 2016–2019* include promoting economic independence for women and men, equal pay for equal work, and gender equality in key decision-making processes.

However, gender equality has not been reached in these three areas in any EU member state. For example, the average gender pay gap in the EU is 16 percent,² and the proportion of women in the highest decision-making bodies of the largest publicly traded companies was only 26 percent in 2018.³

In order to promote gender equality in these bodies, the EU Commission proposed legislation in 2012 aimed at introducing a binding gender quota of 40 percent for supervisory boards of the largest publicly traded companies. The European Parliament adopted the bill by a large majority in November 2013, but it was rejected by the European Council.⁴

In addition to the EU-wide discussion, many EU member states have been discussing introducing domestic gender quotas for decision-making bodies in the private sector. Starting in 2007, eight EU states have followed the example of a non-EU state, Norway,⁵ and introduced binding gender quotas. The first EU state to introduce a mandatory quota was Spain in 2007, followed by Belgium, France, Italy, and the Netherlands in 2011. In 2015, Germany introduced a binding gender quota of 30 percent for supervisory boards of publicly traded companies which also have employee representation on their supervisory boards. Austria and Portugal followed suit in 2017. All other EU states either have non-binding recommendations for gender quotas in their respective

¹ Cf. European Commission, *Strategic Engagement for Gender Equality 2016–2019* (2016) (available online).

² Cf. information on the gender pay gap on the website of the European Commission.

³ Cf. Elke Holst and Katharina Wrohlich, "Increasing Number of Women on Supervisory Boards of Major Companies in Germany: Executive Boards Still Dominated by Men," *DIW Weekly Report* no. 3 (2019): 17–32 (available online).

⁴ Cf. the website of the European Parliament. Along with the United Kingdom, Bulgaria, the Czech Republic, Denmark, Hungary, Lithuania, Malta, the Netherlands, Sweden, and Slovenia, the German government in particular has campaigned against a binding EU-wide gender quota.

⁵ In 2003, Norway became the first country in the world to introduce a binding gender quota of 40 percent for the supervisory boards of state-owned and publicly traded companies.

corporate governance codes (11 countries) or no binding regulations or recommendations at all (nine countries).⁶

The binding quotas in force differ in terms of the percentage, the amount of time allowed to reach the quota, which types of companies the quota applies to, and, especially, in terms of the sanctions applied if the quota is not reached. For example, Spain and the Netherlands do not apply sanctions. Countries such as France and Italy, on the other hand, have relatively harsh sanctions, including fines of up to one million euros. Germany and Austria chose a more moderate policy of “empty chairs.”

A comparison of EU member states shows that countries with binding quotas have seen a significant increase in the proportion of women in the highest decision-making bodies of the largest publicly traded companies in recent years. This increase was significantly larger than in the countries without a mandatory quota, where there was little improvement over the same period. Countries which now have mandatory gender quotas had a lower proportion of women in decision-making bodies on average in the mid-2000s than the countries without a quota (eight vs. 12 percent in 2005). In 2017, the proportion of women was 28 percent in countries with a quota, nine percentage points higher than in countries without a quota (Figure). In other words, since the mid-2000s, the proportion of women in the relevant decision-making bodies has risen by 20 percentage points in countries with mandatory quotas, while in other countries it has only risen by seven percentage points.

This descriptive evidence suggests that mandatory quotas are an effective means of increasing the proportion of women on the top bodies in the private sector. As the EU stands for equality and wishes to be an international role model for gender equality,⁷ introducing a binding EU-wide quota would be the first step toward sustainably increasing the proportion of women on decision-making bodies.

⁶ An extensive overview can be found in Holst and Wrohlich, “Increasing Number of Women on Supervisory Boards of Major Companies.”

⁷ Cf. for example the website of the European Commission.

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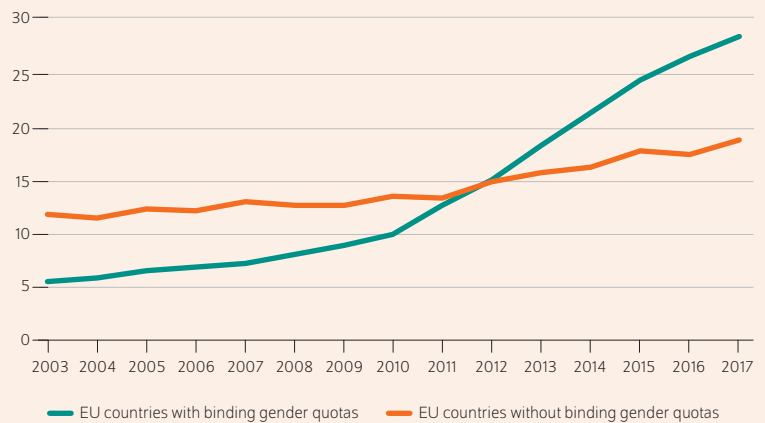
JEL: D22, J16, J78, M14, M51

Keywords: Board diversity, gender equality, gender quota

Figure

Average share of women on supervisory boards of the largest listed companies

In EU countries with and without quotas, in percent



Sources: EU Commission (Database on women and men in decision-making); author's own depiction.

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The share of women on supervisory or similar boards is higher in countries with a binding gender quota.

Gender pension gaps—a problem in many European countries

By Anna Hammerschmid and Carla Rowold

ABSTRACT

- The living situation of the elderly population in Europe is gaining importance due to demographic change
- In many European countries, women receive substantially lower pensions than men; gender pension gaps among pensioners can be up to 69 percent
- When taking elderly people without a pension into account, the gender pension gap increases substantially in many countries
- Gaps could be reduced by changing pension entitlement conditions and strengthening the reconciliability of work and family life

In many European countries, women receive less pension income than men. As more and more individuals in Europe will be reaching the retirement age in the coming decades, this gender inequality is of particular relevance. Women are more likely to be affected by social exclusion and poverty in old age,¹ which poses enormous problems for the member states' social systems. This article compares and discusses the gender pension gaps in several European countries.

The analysis uses two different definitions for calculating the gender pension gap. The first definition solely includes individuals of retirement age who are receiving a pension income, thus reflecting the pension gap among pensioners. The second definition encompasses all individuals of retirement age, including those not receiving a pension income. Those without a pension income are considered to have a pension of zero; including them depicts financial inequality in old age more comprehensively.

Using the first definition, the average pension gap² is clearly pronounced in all countries with the exception of Estonia, although the gap is smaller in Scandinavian and Eastern European countries. The gap is largest in Luxembourg, Portugal, Germany, and the Netherlands (Figure).³

When using the second definition, women in almost half of the 18 EU-countries under study receive less than 50 percent of men's annual pension income on average. The ranking of countries also changes noticeably using this definition: the

¹ Cf. Social Protection Committee & European Commission, "The 2018 Pension Adequacy Report: current and future income adequacy in old age in the EU," Volume 1 (2018): 32ff. (available online, accessed April 8, 2019. This applies to all other online sources in this report unless stated otherwise).

² The calculations are based on SHARE data. For details on the methodology and data, see Peter Haan, Anna Hammerschmid, and Carla Rowold, "Gender Gaps in Pensions and Health: Germany, France, and Denmark," *DIW Economic Bulletin* no 43 (2017) (available online); as well as The SHARE Project. Except for a few changes, the Economic Bulletin article calculated pension inequality in three countries using the first definition. Slight deviations in the results are, among other, due to the fact that the sample was limited to a maximum age of 85 and due to adjusting the handling of non-response for the relevant pension variables. In addition, in the present version, respondents with income from employment or unemployment benefits are only excluded if it was not from a side job.

³ Such patterns (partly, with the exception of Sweden and Portugal) are found in other studies as well. Cf. Francesca Bettio, Platon Tinios, and Gianni Betti, *The gender gap in pensions in the EU*. Study commissioned by the European Commission (2013) (available online); Platon Tinios et al., *Men, women and pensions*. Study commissioned by the European Commission (2015) (available online); Ilze Burkevica et al., *Gender Gap in pensions in the EU. Research note to the Latvian Presidency*. European Institute for Gender Equality (2015) (available online); Manuela Samek Lodovici et al., *The gender pension gap: Differences between mothers and women without children*. Study for the FEMM Committee, Policy Department C. Citizen's Rights and Constitutional Affairs (Brussels, 2016); Social Protection Committee & European Commission, "The 2018 Pension Adequacy Report."

largest pension gaps are to be found in Luxembourg, Spain, and Portugal. The increase in the gender pension gaps when using the second definition is particularly striking in Greece (from 22 percent according to the first definition to 51 percent according to the second), Spain (from 32 to 74 percent), Italy (from 32 to 50 percent), and Belgium (from 34 to 57 percent).⁴ One explanation for this increase could be, at least in the three Southern European countries, the relatively high minimum contribution years (15 to 20 years).⁵ Combined with a low female labor market participation,⁶ this could lead to many women having no pension entitlements.

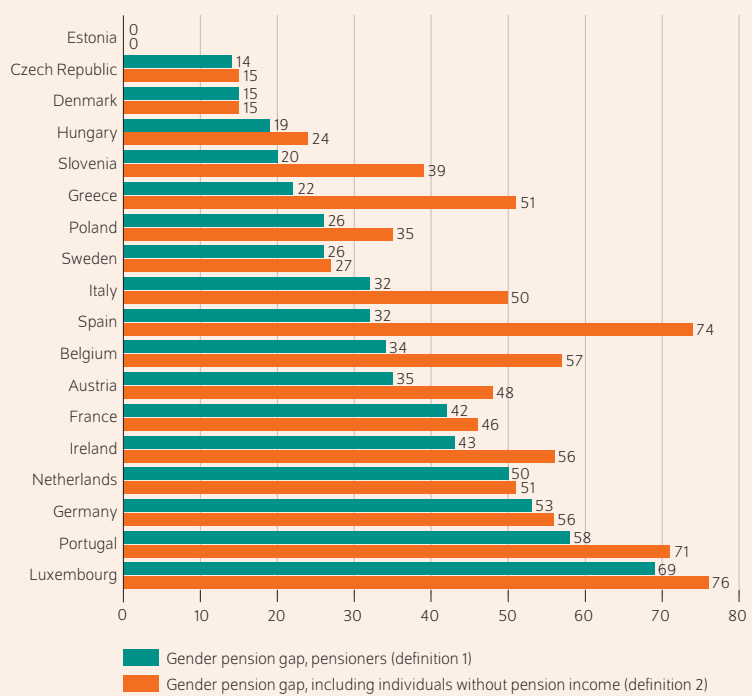
The gender pension gap also rises substantially in Slovenia, Austria, Ireland, and Portugal when using the second definition. With the exception of Ireland, these countries also have comparatively high minimum contribution years (minimum of 15 years).⁷

The difference between women's and men's pension incomes in Luxembourg, Germany, and the Netherlands is especially stark, regardless of which definition is used.⁸ Although these countries have lower thresholds for pension entitlement (zero to ten years of contribution),⁹ there seem to be other important mechanisms leading to considerable gender pension inequality. Possible factors include varying degrees of gender inequalities in the labor market.

Gender-specific pension inequality is thus a serious European problem. In some countries, especially in Southern Europe, the gender pension gap could possibly be reduced by easing the conditions for receiving pension income. In addition, women's career profiles need to be strengthened in all countries so that more and higher pension entitlements can be accumulated during working life. In particular, measures strengthening the reconciliation of work and family life for both men and women could contribute to this goal. Moreover, the general question of whether care and family work, which is mainly performed by women,¹⁰ is sufficiently rewarded in the current pension systems also needs to be addressed. Societal mentalities and practices must change for women to be included fairly in the different country-specific pension systems.

⁴ Similar developments found in Tinios et al., *Men, women and pensions*.
⁵ Cf. OECD, *Pensions at a Glance Public Policies across OECD Countries, Part I* (OECD Publishing, 2007), 286ff; OECD, *Pensions at a Glance 2013: OECD and G20 Indicators* (OECD Publishing, 2013), 286ff.
⁶ Cf. OECD, *Employment rate* (2019) (available online; accessed March 12, 2019).
⁷ Cf. OECD, *Pensions at a Glance Public Policies across OECD Countries*; OECD, *Pensions at a Glance 2011: Retirement-income Systems in OECD and G20 Countries* (OECD Publishing, 2011), 287; OECD, *Pensions at a Glance 2013*.
⁸ The findings for Luxembourg, Germany, the Netherlands, Austria, and Ireland are qualitatively confirmed by previous studies; the results for Slovenia and Portugal differ substantially. Cf. Bettio, Tinios and Betti, *The gender gap in pensions in the EU*; Tinios et al., *Men, women and pensions*.
⁹ OECD, *Pensions at a Glance 2013*.
¹⁰ Cf. for Germany Claire Samtleben, "Also on Sundays, Women Perform Most of the Housework and Child Care," *DIW Weekly Report* no. 10 (2019): 86–92 (available online).

Figure
The average gender pension gap¹ in several European countries
 Individuals aged 65 and over, in percent



¹ Weighted (cross sectional weights), controlled for age, and adjusted for purchasing power. Pension income includes all three pillars of old age provision, excluding survivor's pension.
 Sources: SHARE wave 5, wave 4 (Hungary, Poland, Portugal), wave 2 (Ireland, Greece), authors' own calculations.

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Germany has one of the highest gender pension gaps among the European countries studied.

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JEL: J14, J16, J26
Keywords: Gender Pension Gap, Europe, SHARE

Education platform for more cooperation among schools

By Felix Weinhardt

ABSTRACT

- Knowledge and education are essential prerequisites for the future well-being of Europe
- In the areas of training and continuing education, EU education policy is one of the major success stories of the European Union. There is a lot of potential to be tapped when it comes to school education
- Recommended: more school partnerships and a European education platform for connecting decision makers and schools
- The EU should provide funding for independent external evaluations of school-related measures

Without knowledge, a knowledge-based society cannot flourish. In the context of global competition, EU member states are facing similar challenges. Increasingly global economic integration, the demographic shift, new challenges, and the shorter half-life of existing knowledge—i.e., digitalization—are issues confronting all EU states. Educational policy can supply some answers to the issues that crop up.

The EU has already made much progress in the areas of training and continuing education. Setting up a “European Education Area” is one of the EU Commission’s declared goals. Erasmus, the well-known university exchange program, has been expanded to Erasmus+, including other programs. Digital Opportunity Traineeship is an internship program embedded in Erasmus+. It places computer sciences students in companies in the private economy in other EU states. The Bologna Process harmonized university degrees, the European qualification framework created comparability among different academic degrees or skills. In this context, the Common European Framework of Reference for Languages with reference levels for language proficiency is a widely recognized solution. The Youth Guarantee for it is part is a commitment by all EU member states to ensure that all young people under the age of 25 receive a good quality offer of employment, continued education, apprenticeship, or internship within four months of leaving formal education (Figure).

As part of the planned European Education Area, the area of school education appears to be marginal. Schools can apply for school partnerships and realize joint advanced education projects as part of the Erasmus+ program. Compared to the Bologna Process, for example, which had an influence on the structure of university degree programs throughout Europe, sights have been set lower for schools.

The EU member states should create solutions to common challenges in the school area, thus benefiting from the diverse experience of all the states. How should schools react to digitalization? Which training measures for teachers have proven expedient? There are plenty of mutual issues, but citizens often perceive them as national or (as in Germany) regional issues. It will be necessary to create awareness and interconnect actors in order to exchange experiences without jeopardizing the educational sovereignty of the member

states. In this way, it will be possible to avoid redundantly acquiring knowledge on a decentralized basis.

The European education platform proposed here would permit decision makers in the educational field to compare externally evaluated programs and receive support in implementing them. In addition to the effects and costs of a measure—using digital technology in the classroom, for example—the quality of the empirical evidence with regard to its effect must be assessed.

A key criterion for the process is independent external evaluation. This would ideally occur in the form of field experiments in which measures would be carried out at randomly selected schools. In this way, subsequent differences in learning could be causally attributed to the measure. In some places in Germany this is already happening. In England, the Education Endowment Foundation’s Teaching and Learning Toolkit has had positive feedback. It compares over 120 externally evaluated interventions with regard to their costs and benefits, interconnects interested schools, and provides support for implementation.¹

A platform like this, which sets up a European network of decision makers and supports schools as they master common challenges, would be a good European education initiative. In particular, the EU should provide funding for independent external evaluations of programs. Such a platform would not only leverage synergies, but also further embed education policy in the consciousness of EU citizens and lay an “early” foundation for the long-term economic viability of the EU.

¹ See the Education Endowment Foundation website.

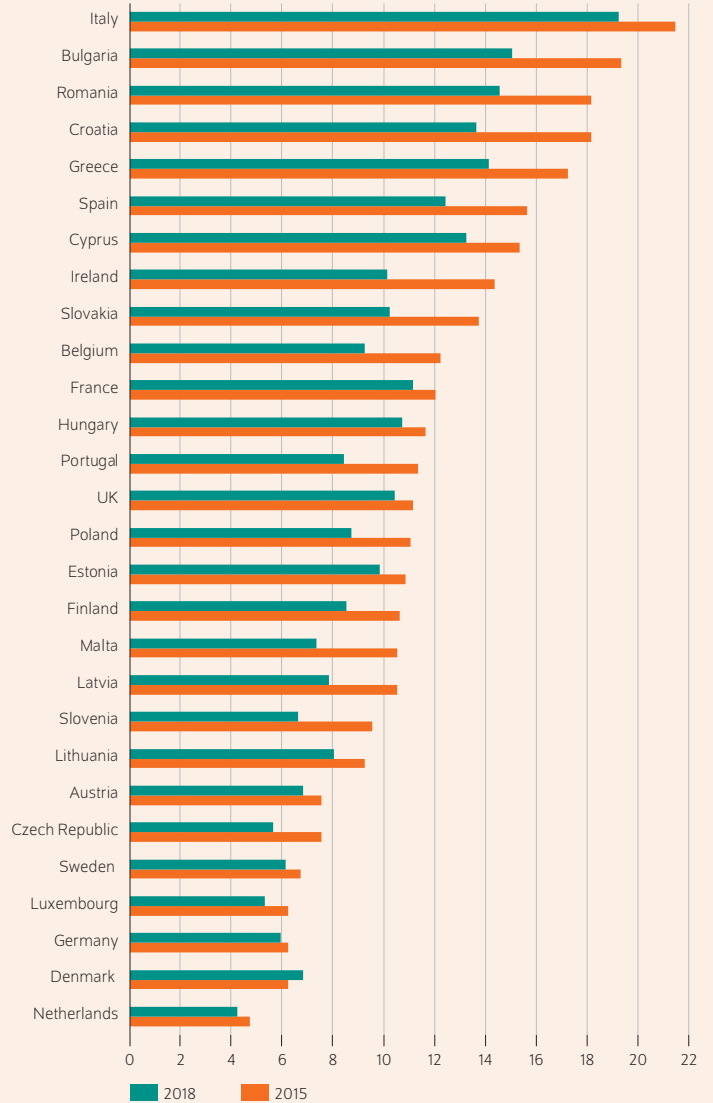
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JEL: I21, I28

Keywords: Education, program evaluation

Figure

Youth who are neither employed nor in training or continuing education
In percent of the population in the same age group (15–24 year olds)



Source: Eurostat.

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The EU’s goal is for all young people under the age of 25 to either be employed, in continuing education, or completing an apprenticeship or internship.

A 100 percent renewable energy system in Europe is technically possible and economically rational

By **Claudia Kemfert**

ABSTRACT

- To achieve climate targets, efforts need to be made in Europe to improve energy efficiency and to expand renewable energies
- Conditions for investing in renewable energies in Europe must be improved, subsidies for fossil and nuclear energy reduced
- A 100 percent renewable energy system is technically possible and economically worthwhile

The participating states in the Paris Agreement have committed to reducing greenhouse gas emissions by up to 90 percent by 2050 in order to limit the increase in global warming to well below two degrees Celsius. Beyond individual member states' nationally defined climate change targets, the EU wants to push ahead in transforming the European energy system.¹ The "EU Clean Energy Package" sets the conditions and defines the goals of this transformation, with the objective of creating more competition for the most innovative technologies and the fastest implementation.² This should help the EU achieve market leadership in the field of climate-friendly technologies. In addition to energy efficiency, emission reduction, and research and innovation, the EU's objectives also include supply security, reduced import dependence, and a fully integrated internal energy market.

The EU has set a binding target of 20 percent final energy consumption from renewable sources by 2020. Seventeen percent of the target has already been reached, mainly thanks to the Scandinavian countries and some Eastern European countries (Figure). Eleven countries already meet the EU expansion targets for renewable energies, which require an increase in the use of renewables in electricity and thermal energy production as well as in the mobility sector. In 2017, 85 percent of all newly built electricity generation capacity came from renewable energies, above all wind energy. However, five countries are likely to miss the expansion targets completely, including Germany,³ France, England, Belgium, and the Netherlands.

This 20 percent target is only a first step. A 100 percent renewable energy system should be the end goal, as it is the only way to ensure supply security, that the climate protection goals can be met, and that fossil energy imports can be completely avoided. Modeling of electricity and energy systems shows that this is feasible, including both earlier

¹ Cf. Christian von Hirschhausen et al., "European Electricity Generation Post-2020: Renewable Energy Not To Be Underestimated," *DIW Economic Bulletin*, no. 9 (2013) (available online, accessed March 12, 2019). This applies to all other online sources in this report unless stated otherwise; as well as Jochen Diekmann, "Erneuerbare Energien in Europa: Ambitionierte Ziele jetzt konsequent verfolgen," *DIW Wochenbericht*, no. 45 (2009) (in German; available online).

² Cf. EU Commission, *Clean Energy for all Europeans* (available online).

³ Bundesregierung, *Klimaschutzplan 2050* (2016) (in German; available online).

work by the German Advisory Council on the Environment (*Sachverständigenrat für Umweltfragen, SRU*)⁴ as well as more recent, more detailed work.⁵ In terms of costs, renewable energies are much more affordable than conventional energies⁶ and model results show that transitioning to a 100 percent renewable energy system is economically rational.⁷ These studies also confirm this transition is not only currently technically feasible, but can also strengthen the economy and create innovations and technological advantages.⁸ Generating more energy via renewables reduces costs, especially for wind power and solar photovoltaics, and lower storage costs promote competitiveness. Were the EU to link the electricity, heating, and transport sectors (known as sector coupling) and to better integrate different regions on the continent by implementing uniform expansion targets and optimizing the EU internal market, costs would sink even further.

Positive investment conditions are important for transitioning to 100 percent renewable energy; this requires that the expansion is not capped or obstructed and that financing conditions are facilitated. In addition, all member states must consistently reduce subsidies for fossil energies and, above all, must not grant new subsidies for nuclear or fossil energies. Due to their often weather-dependent fluctuations and flexibilities, renewable energies must be well interlinked (a fine opportunity for utilizing intelligent technology); for this and for the use of storage, it is necessary to improve market conditions by removing existing barriers and enabling more flexibility. Only so will Europe be able to increase its economic and climate benefits through innovation and competitive advantage.

⁴ Sachverständigenrat für Umweltfragen, *100 Prozent erneuerbare Stromversorgung bis 2050: klimaverträglich, sicher, bezahlbar* (2010) (in German); Martin Faulstich et al. (2011), "Wege zur 100 Prozent erneuerbaren Stromversorgung," *Sondergutachten des Sachverständigenrates für Umweltfragen (SRU)*, Berlin (in German).

⁵ Michael Child et al., "Flexible electricity generation, grid exchange and storage for the transition to a 100 Prozent renewable energy system in Europe," *Renewable Energy* 139 (2019): 80–101 (available online).

⁶ Cf. von Hirschhausen, "European Electricity Generation Post-2020."

⁷ Wolf-Peter Schill et al., "Die Energiewende wird nicht an Stromspeichern scheitern," *DIW aktuell* 11 (2018) (in German; available online).

⁸ Karlo Hainsch et al., "Emission Pathways Towards a Low-Carbon Energy System for Europe: A Model-Based Analysis of Decarbonization Scenarios," *DIW Discussion Paper 1745* (available online) as well as Thorsten Burandt, Konstantin Löffler, Karlo Hainsch (2018), "GENeSYS-MOD v2.0—Enhancing the Global Energy System Model: Model Improvements, Framework Changes, and European Data Set," *DIW Data Documentation 94* (available online).

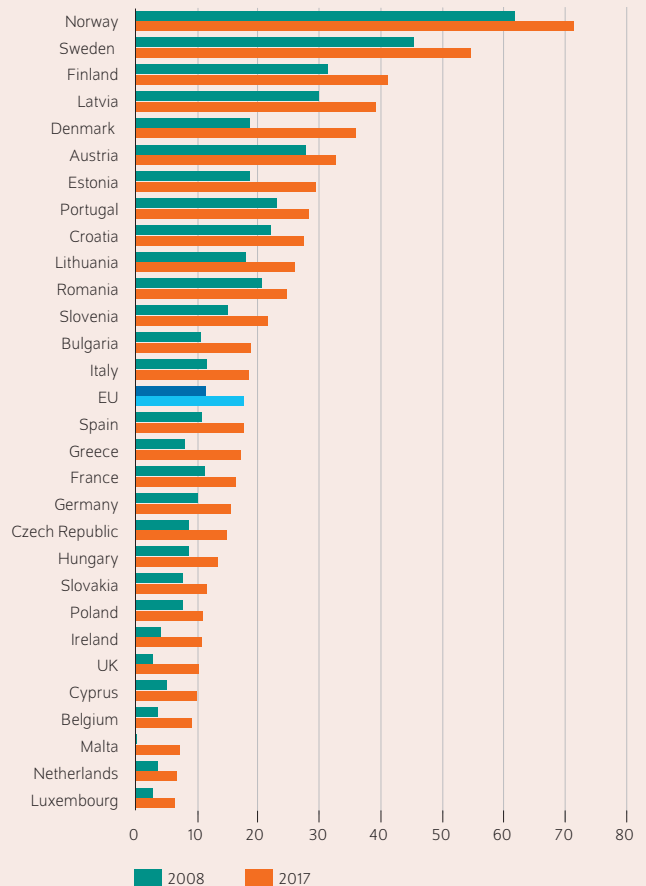
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JEL: Q13, Q42, O1

Keywords: Energy Transition, 100 % Renewable Energy, Climate policy, Europe

Figure

Share of renewable energies in the EU countries and Norway
In percent



Source: Eurostat.

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Northern European countries are far ahead of the rest of Europe in terms of renewable energy.

European framework conditions for a more climate-friendly industry

By Karsten Neuhoff, Jörn Richstein, and Vera Zipperer

ABSTRACT

- Basic materials industries such as steel and cement manufacturing generate around 25 percent of worldwide carbon emissions
- The European Union Emissions Trading Scheme (EU-ETS) could play an important role in reinforcing innovation and investment in climate-friendly technologies
- Generous exemptions under the EU-ETS rule for globally traded basic materials weaken the effect
- A climate deposit in the form of a charge for using basic materials is one possible solution to restore the incentives. The proceeds could be redistributed among all citizens

On the way to climate-friendly, low-emission industrial production, the basic materials industry has the greatest need for emission reductions. The production of steel, cement, and other basic materials generates around 25 percent of worldwide carbon emissions.¹ The European Commission's sector-specific roadmaps² and other studies³ have shown that 80 to 95 percent of those emissions could be reduced. However, this will not be achievable by simply improving the efficiency of the existing production processes. Instead, it will take measures such as conversion to climate-friendly production processes of basic materials, increased efficiency of material usage, switching to alternative materials, and improvements in recycling.⁴ A strong and clear regulatory framework is necessary for manufacturers and users of basic materials to convert to these climate-friendly options. For the following three reasons, the EU-ETS can take up an important steering function in this process.

First, the European market is large enough to be relevant for globally active companies. Second, nowadays, the European Union has more credibility in many areas when it comes to effective climate protection laws than individual member states, as shown by the Ecodesign Directive⁵ or the European Renewable Energy Directive. This is important for long-term corporate decisions on innovation and investment. The credible announcement that carbon-intensive options have no longer-term perspective further enhances companies' dedication to climate-friendly approaches. Third, uniform regulations prevent competitive distortion within the EU.

Experience with the EU-ETS since its implementation in 2005 has shown that basic materials manufacturers only pass through part of the price of carbon certificates along

¹ Own calculations based on the International Energy Agency's Energy Technology Perspectives (2017) (available online, accessed on April 8, 2019; this applies to all other online sources in this report unless stated otherwise).

² European Commission, A roadmap for moving to a competitive low carbon economy in 2050 (2011) (available online).

³ Boston Consulting Group and Prognos, Climate Paths for Germany (2018) (available online); and Deutsche Energieagentur (Dena), Integrated Energy Transition study (2018) (available online).

⁴ Climate Strategies, Filling Gaps in the Policy Package to Decarbonise Production and Use of Materials (2018) (available online).

⁵ European Parliament and Council of the European Union, "Council Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products (recast)," *Official Journal of the European Union* L 153/1 (2010) (available online).

the value chain, since they are facing competition from the global market. Due to fear that basic materials manufacturers will shift their production to foreign locations because of additional environmental costs in Europe (carbon leakage risk) these manufacturers receive free emission allowances. This leads to a further reduction in the pass through rate of carbon prices along the value chain.⁶ Without prices being passed through, however, there is little to no incentive for the basic materials producers to use less carbon-intensive production processes or to replace them with alternatives that are more environmentally friendly. At the same time, end customers are not contributing to additional costs, undermining the economic perspective for large-scale use of climate-friendly production processes and thus incentives for innovation.

To tackle this problem, the EU-ETS should be supplemented by a climate deposit⁷ on the use of carbon-intensive basic materials. This refers to a charge paid by the consumers of industrial products, based on the benchmark level of carbon intensity of the basic materials contained in the products.

A combination of two reforms would make it possible to implement a charge like this. First, the allocation of free emission certificates to industrial companies should be tied to the company's current production volume instead of the historical volume. This would mean that companies would only have to purchase emission certificates for emissions exceeding the emission benchmark level. Companies that emit less than the benchmark would benefit from the option to sell their excess certificates.

Second, the climate deposit would be charged for the use of basic materials. The deposit would be equivalent to the value of the certificates per ton of basic materials that are allocated for free as part of the EU-ETS. For example, if two certificates (at 30 euros each) were allocated per ton of steel (efficiency benchmark), and one ton of steel is processed to make one car, the climate deposit for the car would be 60 euros. Unlike under today's EU-ETS regulation, the deposit would be added to the price of the end product, providing an incentive for the downstream industry to use carbon-intensive basic materials more efficiently or replace them with climate-friendly alternatives. As is the case with other consumption charges, the climate deposit would be applied to imported basic materials and products, while exports would be excluded. This prevents competitive distortions and carbon leakage. Designing the deposit as a consumption charge would also ensure compliance with World Trade Organization rules and reduce administrative complexity.

Part of the proceeds could finance climate protection measures, while most of them could be used to reimburse all citizens on a simple per capita basis—hence the name climate “deposit.” The climate deposit would have a progressive component, since poorer households that use fewer basic materials on average would pay less climate deposit than wealthier households but would receive the same amount of reimbursement.

Supplementing the EU-ETS with a climate deposit would restore the intended steering effect towards more climate-friendly investments along the entire value chain. At the same time, the scheme would provide robust long-term protection against carbon leakage. This mechanism can and should be taken up as part of the EU Emissions Trading Directive to strengthen the environmental effectiveness.⁸

⁸ Roland Ismer and Manuel Haußner, "Inclusion of Consumption into the EU ETS: The Legal Basis under European Union Law," *Review of European, Comparative & International Environmental Law*, 25 (2016): 69–80.

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JEL: F18, H23, L51, L78

Keywords: Emissions trading scheme, climate deposit, consumption charge, basic materials sector

⁶ One-time free allocation of certificates would not negatively affect the carbon price transfer. The effect arises since 1) the future allocation of certificates is tied to the current production level and 2) new plants also receive free certificates, making investment more attractive, boosting supply in the market, and causing it to fall based on the equilibrium price.

⁷ Karsten Neuhoff et al., "Inclusion of Consumption of carbon intensive materials in emissions trading—An option for carbon pricing post-2020", Report of project convened by Research Network Climate Strategies, available with technical reports (available online).

Europe must work together to alleviate migratory pressure from Africa

By Lukas Menkhoff and Tobias Stöhr

ABSTRACT

- Improved living conditions in Africa would lessen migratory pressure on Europe
- The scope of Germany's "Marshall Plan with Africa" is too narrow; progress can only be made if Europe works together
- A financial system that reaches as many people as possible could be one key to future development in Africa

Migratory pressure on Europe from Africa will not diminish in the future, but rather continue to rise. Africa's population is growing rapidly (by around 32 million people per year), often lives in politically and economically unstable conditions, and is significantly less prosperous than the population in Europe. As a result, it is likely that the number of individuals considering migrating to Europe will increase rather than decrease. Consequently, Europe has a threefold interest in stable economic development in Africa: to limit migration in the medium term, to combat often staggering poverty, and to benefit more from economic exchanges with a growing neighboring continent.

The difficulty of achieving these objectives has been recognized and various development-oriented policy packages have been proposed, such as the German Federal Ministry for Economic Cooperation and Development's "Marshall Plan with Africa" and the G20 countries' "Compact with Africa."¹ What is to be expected of these proposals, and to what extent can they promote economic development and actually slow migration?

The G20 Compact aims at promoting private investment and is thus restricted to only one important aspect of development. In contrast, the German "Marshall Plan" is broader in scope, encompassing three main objectives: employment, stability, and the rule of law. It also recommends measures for achieving these objectives which can be implemented in Germany, in Africa, and at the international level. If the program could be broadly implemented, it would create fantastic medium- and long-term conditions for development. However, this is not expected.

Currently, there are around 1.3 billion Africans living in 55 countries on a continent three times the size of Europe. By 2050, the population will double. In total, German (bilateral) development cooperation with Africa amounts to around three billion euros per year,² significantly less than the volume of economic assistance provided by the original

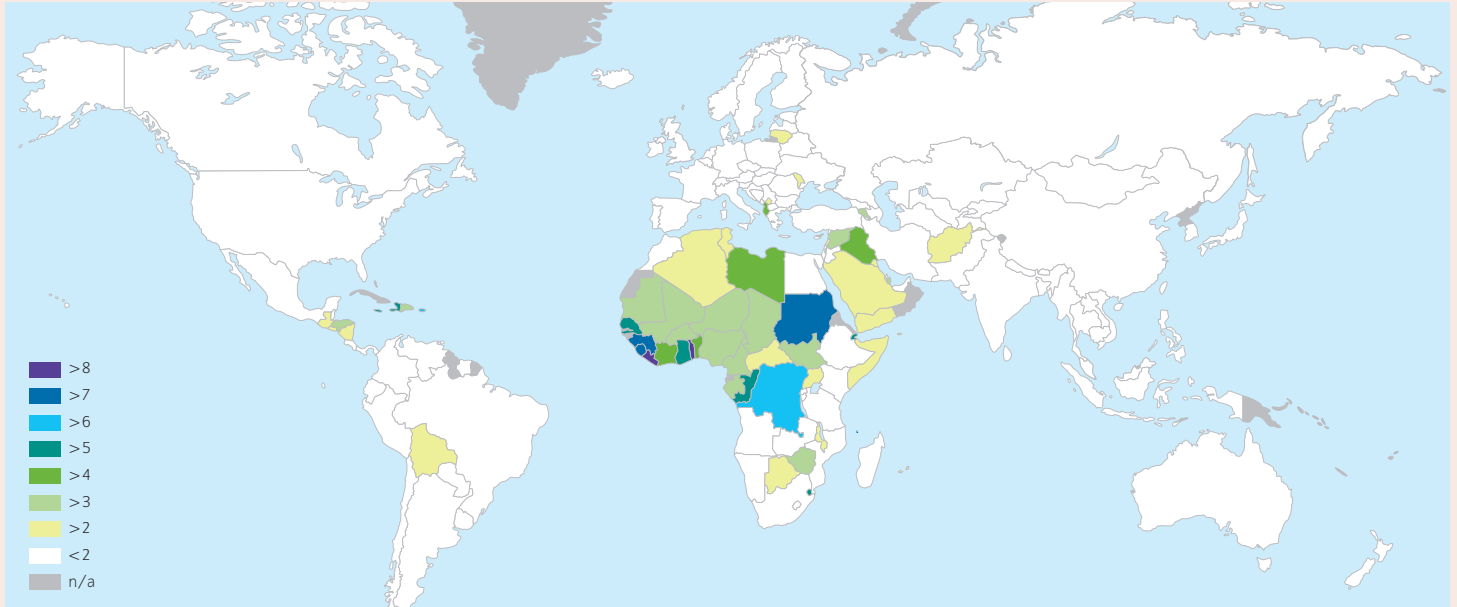
¹ Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, *Afrika und Europa—Neue Partnerschaft für Entwicklung, Frieden und Zukunft; Eckpunkte für einen Marshallplan mit Afrika* (2017) (in German). Information on Compact with Africa available at www.compactwithafrica.org.

² Cf. the OECD website (accessed March 4, 2019). This applies to all other online sources in this report unless stated otherwise).

Figure

Share of the adult population planning to emigrate in the next twelve months

In percent, most recent available year in each case (2015–2017)



Source: Gallup World Poll; authors' own calculations.

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Africa has the highest migratory pressure worldwide.

Marshall Plan.³ Based on the amount of aid alone, the claim that Germany could significantly advance Africa's economic development on its own is rather presumptuous.

Due to the limited nature of these funds, the German government will only work with countries that hold promise in terms of progress towards all three objectives. These relationships are known as "reform partnerships." Working exclusively with these countries is a good idea in the sense that the objectives can act as complements, i.e., reaching one goal can ease progress towards the others. For example, achieving stability and rule of law, for example, are important for fostering economic growth and employment. However, so far neither the committed personnel nor the finances are sufficient for this. Crisis states, such as failed states or countries on the brink of civil war, are neglected, although an increasing number of migrants could come to Europe in the future from precisely these countries. Since there are hardly any legal migration channels for these individuals, many who are not personally facing persecution will try their luck as refugees.

More could be done if the EU countries were to join forces. Although the EU's total expenditure is roughly on par with

that of China,⁴ so far there has been no binding, coordinated European development effort between the member states nor any initiative to work together to combat the root causes of emigration from Africa. Joint European cooperation is also complicated by the fact that EU countries have different political interests in Africa and very different attitudes towards different forms of migration, in particular legal labor migration and receiving asylum seekers.

What can development cooperation do to further develop African countries and limit emigration? In the short term, even doubling the current development aid would only marginally reduce the annual emigration rate.⁵ The aim must be to achieve medium and long-term effects by increasing economic growth and creating positive effects on living conditions downstream.

Individuals living in poor and unstable countries have the greatest interest in migrating, but many are too poor to afford to emigrate to Europe (Figure). While the poorest do migrate in larger numbers when they have unexpected disposable income, the likelihood of emigration decreases as soon as

³ At today's value, the "Marshall Plan" provided over 130 billion dollars in aid to 16 OECD countries over a four-year period.

⁴ Between 2010 and 2014, China spent the equivalent of a good ten billion euros annually, five billion of which was official development aid plus 5.6 billion euros in other financial services. Cf. Axel Dreher et al., "Aid, China, and Growth: Evidence from a New Global Development Finance Dataset." AidData Working Paper 46, 2017 (available online).

⁵ The annual emigration rate could be reduced by ten to 15 percent, cf. Mauro Lanati and Rainer Thiele, "The impact of foreign aid on migration revisited," *World Development* 111 (2018): 59–75.

their income is higher in the medium or long-term.⁶ That is why the three main objectives in the German “Marshall Plan” are so important: growth must be strengthened in addition to resilience and the social environment; strengthening these latter two factors increases the rule of law and lowers corruption.⁷

A part of these main objectives is the “inclusive financial system,” a building block of the German “Marshall Plan”. For example, modern mobile phone-based payment systems in Africa offer financial access to many more people than was previously possible with conventional branch offices. In many countries, financial literacy is also being promoted in order to make meaningful use of these new services. This encourages saving behavior, financial planning, and small businesses’ investments.⁸ However, there needs to be less

corruption and stable rule of law for these growth drivers to develop. For this reason alone, the EU should work together with states which are not repressive and autocratic.

Effectively fighting the flow of migration can mean focusing on medium and long-term effects rather than attempting to reduce irregular migration in the short term. The complex factors involved in slowing migration should also be clearly communicated to the European population. However, neither growth, financial inclusion, nor any other objective will be successfully implemented in Africa to a greater extent if the EU does not work together.

6 Samuel Bazzi, “Welt Heterogeneity and the Income Elasticity of Migration,” *American Economic Journal: Applied Economics* 9, no. 2 (2017): 219–255; Christian Dustmann and Anna Okatenko, “Out-migration, wealth constraints, and the quality of local amenities,” *Journal of Development Economics* 110 (2014): 52–63.

7 Esther Ademmer et al., *MEDAM Assessment Report on Asylum and Migration Policies. Flexible Solidarity: A comprehensive strategy for asylum and immigration in the EU* (2018) (available online).

8 Antonia Grohmann and Lukas Menkhoff, “Finanzbildung fördert finanzielle Inklusion in armen und reichen Ländern,” *DIW Wochenbericht* no. 41 (2017): 905–913 (in German; available online).

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JEL: F22, F35, O15

Keywords: Development Aid, migration, EU-Africa relations