

**Cooperative Banks and Municipal Saving Banks:  
Which Effects do Local Banks have on SMEs?**

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## **EXECUTIVE SUMMARY**

The aim of this study is to identify and analyse the distortions that prevent regions and SMEs to realize their full potential and follow a sustainable path of economic and social development. We focus on the national and regional interlinkages between the real and the financial sector as research on the role of financing for SMEs in Europe is scarce.

In our empirical approach we focus on a sample of six EU Member States, namely Austria, France, Germany, Italy, Spain, and Sweden, reflecting the diversity of real and financial sectors in the EU. We check for comparative advantages, analyse whether shortcomings in financing corporate investments cause regions to lag in economic performances, and look for workable solutions to overcome these deficiencies. Particular attention is paid to SMEs and their local business conditions.

There is little doubt that economic integration and the free movement of capital, people, goods and services increase the level of public welfare. However, they do not guarantee that these benefits are uniformly distributed across regions or that disadvantaged, low-income regions should even benefit disproportionately.

In the Covid-19 pandemic SMEs are hit more strongly than large and internationally operating firms as they are less able to diversify and tend to receive less public support. Regional banks proved to be very helpful in implementing state aid measures and channeling funds to SMEs in need.

In the fight against global warming, the EU Green Deal calls for innovative ideas in technology and new business models. The new approaches are implemented in a decentralized and local way, so that SMEs are natural leaders to monitor and benefit from this transformation process. Regional banks play an important role in this grand challenge, as their detailed knowledge of local conditions is vital for an appropriate allocation of funds and government aid.



### **Short bio**

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## 1. Introduction

Over the last decade Europe has been hit by three unanticipated major crises, the Great Financial Crisis (2007-2009) with its origins in the US financial system, the euro area sovereign debt and banking crisis (2009-2012), and the 2020-2021 Covid-19 pandemic. Also, the imminent climate change poses an even more fundamental, yet a more gradual challenge to the European way of living. Each of these crises has strong regional dimensions. While some regions are relatively resilient and have the potential to meet the challenges to recover comparably swiftly, other regions are more fragile and struggle to cope with these shocks. This issue of regional inequality has gained increasing importance in the public agenda and the context of political movements representing the "places left behind". Regional inequalities do not only relate to income and wealth but also to a variety of other aspects such as access to basic services, education, and infrastructure (Widuto, 2019).

Mitigating inequalities in regional socio-economic developments is at the core of the European Union (EU). Key goals of the EU, as specified in Art. 3 TEU, include the promotion of a sustainable development based on balanced economic growth and price stability, a highly competitive social market economy, a high level of protection and improvement of the quality of the environment as well as the economic, social, and territorial cohesion, and solidarity among the Member States. Article 174 TFEU further specifies that the EU's goals include "reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions".

Europe's 25 million small and medium-sized enterprises (SMEs), who make up the core of the European economy, are central in this endeavour to mitigate regional inequalities, to cope with the ongoing crises, and to build regional resilience. They represent over 99% of the EU's businesses, employ two out of every three employees, create 85% of all new jobs, and generate about three-fifths of EU value-added. They are closely connected with their local communities, and their value-added plays an essential role in the development of the local economies.

SMEs are particularly qualified to meet new challenges such as the imminent climate change. The EU's newly introduced Green Deal calls for innovative ideas in production technologies and new business models that are to be implemented in a decentralized and local way. It seems most likely that SMEs are specially qualified to monitor and benefit from this transformation process. As they are disproportionately located in rural areas, they are crucial for developing non-urban areas and securing Europe's diversity. SMEs generate not only economic advantages and stability but also offer numerous social benefits to their local communities.

Yet, SMEs also face several demanding challenges in these recent crises. Although the EU and its Member States try to mitigate the most damaging crisis effects by setting up public aid programs, the current Covid-19 pandemic shows exemplarily how SMEs are typically hit more strongly by these shocks than large and internationally operating firms. Locally connected SMEs have less room to diversify and to mitigate the harmful effects of crises. They have only limited access to public subsidies as they are less visible and as they are not as well politically connected than larger, internationally operating companies. Due to a weaker digital and logistical infrastructure in rural



areas, they have fewer options to cope with shocks like the Covid-19 pandemic, which in turn is threatening local employment and welfare.

Another structural disadvantage SMEs have to overcome is their limited access to adequate finance at all stages of their development – they might be overlooked and underserved by the financial sector. Particularly large banks offer products and services that do not explicitly meet SMEs' expectations or needs but are more targeted to large enterprises. With their relatively low individual turnover, SMEs have been less of a priority for them. As SMEs are quite diverse, many of the larger banks do not tailor products to subsegments or match them to business life stages. As a result, SMEs have yet to benefit from digital innovation to the extent that retail customers have. From an organizational point of view, front and back-office processes in banks are usually adapted from retail or corporate. While a lot of progress has been made in streamlining SME loans, complex applications and delays can still be a drain on SMEs' resources (Fintech OS, 2020).

The central role of financial structures for the real economy's efficiency and, therefore, real living standards has been at the focus of an age-old debate in the economic literature. On the side of the real economy, a nation's economic welfare is often proxied by its gross domestic product (GDP), respectively GDP per capita. Standard economic theory focuses on analysing terms and techniques of the production of goods and services, e.g. by using more or less sophisticated models of economic growth, and its physical distribution via local, regional, or even virtual markets. Trading rules, logistics, characteristics of markets, and determinants of corporate investment are central research topics as well as recurrent issues in political discussions.

At least since the last century market-oriented, decentralized economies are the preferred organizational frameworks of nation-states. Governments provide the institutional and legal framework for private households and firms to take their individual economic decisions. Corporate structures have been developed in line with and thus reflect countries' specific needs. Private enterprises often settled in regions with large populations or chose their location for easy access to crucial natural resources. Technical progress in transportation techniques opened up new degrees of freedom for location decisions, and especially the mobility of capital and labour increased significantly during the last decades.

A major factor in this long-term process of economic growth and development is the financial infrastructure to support the ongoing trend towards specialization, improved production skills, production differentiation, and quality improvement in goods and services. Corresponding to the increased variety of products the technical organization of trade with the exchange between provider and demander becomes ever more complex.

Obviously, in a simple world without financial products, economic exchanges are restricted to so-called barter trades, which would be incompatible with today's highly specialised economies. Information and transaction costs would be prohibitive, a generally accepted single medium of exchange ("money") is extremely useful. The advantages are straight forward: the exchange relations ("prices") of all goods will be displayed in units of an identical medium and can easily be compared. In this setting, prices signal the respective values of all items traded in a given economy. In retrospect, the real goods sector of any economy emerged prior to the monetary and



financial sphere. As such money and other financial products help to improve market processes but are to be designed as tools rather than a virtue of their own. As such, finance has been an integral factor in the development of human society (see Goetzman, 2016).

The financial structure comprises all institutions that channel funds from savers to borrowers by performing the following five main tasks - the transformation of risk, lot size, maturity, space, and liquidity. Consequently, the supply-side structure should sufficiently fit the particular demands of potential customers. The links between both sides of the financial market are determined by, among others, the geographic, social, and economic conditions in a country.

A well-functioning finance industry can improve economic development and the underlying economic decisions and exchanges in a variety of ways. It is a simple truth that production is a binding condition for supply - enterprises cannot sell what has not yet been produced. Since costs start occurring even before the manufacturing process starts, e.g. when buying a plant or intermediate products, someone has to pre-finance and cover these expenses in advance. In the first step, the owner of an enterprise is in charge, with her equity investment expected to earn profits via sales in the future. However, in this case, the development of the firm is limited by its owner's willingness and ability to provide the enterprise with the necessary resources.

In practice, countless options exist to further corporate investments. Since future profits are, by definition, uncertain, any supporting structure reflects a combination of risk-taking and participation in the firm's decision-making procedures. On the one hand, equity represents a claim to participate in an enterprise's net profits and to be involved in its leadership. Owners as equity investors bear the highest risk. On the other hand, a lender to an enterprise limits her risk to mutually agreed interest payments and the redemption of the loan while she does not participate in the guidance of the firm. To profit from both of these financing approaches and to balance their benefits and costs, corporate investments are most commonly financed by a combination of equity and debt.

A differentiated and efficient financial sector is necessary to ensure adequate access to investment capital. In most industrialized countries banks and similar financial institutions, so-called "Monetary Financial Institutions" (MFI) as labeled by the European Central Bank (ECB), are preferred counterparts. Additionally, a large range of specialised experts provides individual support for more sophisticated problems. Nevertheless, large and often internationally operating corporations have significant advantages to get in contact with potential financial investors directly. They are among others able to operate on global security markets when offering new stock or bonds.

Small and medium-sized enterprises are much more limited in their financial options. They (have to) rely on the local banking industry, with even that being difficult in remote areas. Intense competition and a massive regulatory burden have put increasing pressure on the banking industry in the last decade and have expedited the process of consolidation in the EU's banking industry.

Corporate lending is characterized by a systemic problem of asymmetric information. While the potential borrower is fully aware of the chances and risks of his planned activities, the lender has to deal with limited and opaque knowledge about her customer's investments. Thus, a bank has an



intrinsic incentive to attain profound but also costly information to calculate appropriate conditions for an intended loan contract. Most likely, these transaction costs can be reduced with respect to the (geographical) distance between bank and client as well as to the duration of the bilateral relationship.

A central topic in the ongoing discussions about different financial systems in general and the role of big international and smaller regional banks, in particular, is the trade-off between potential economies of scale and closeness to local customers. Small banks benefit from easy access to information about their borrowers and somewhat limited competition in their markets. Hence, relationship banking is based on continued cooperation between local banks and private agents in manageable territories. In contrast, large banks regularly operate nationwide and internationally, with only a limited presence outside the major financial centers. They focus on large businesses and well-off private households instead of SMEs. On average, large banks can operate with lower unit costs than their smaller rivals but only based on large business volumes.

Although the general characteristics of the financial industry and its relation to the real sector as described above apply to most modern economies, the specific features differ significantly between and within the EU Member States – another example of EU's motto "united in diversity".

In the following, we take this vast regional diversity in the real as well as the financial sector in Europe to reflect the optimizing decisions of millions of enterprises and private households given their specific regional environments. The central aim of the study is to identify and analyze the specific distortions that prevent regions and SMEs to realize their full potential and follow a sustainable path of economic and social development. We focus on the interlinkages on the national as well as the regional level between the real goods sector and the financial industry as research on the impact of the banking structure on SMEs in Europe is scarce.

In particular, we examine a sample of six EU members, namely Austria, France, Germany, Italy, Spain, and Sweden, which reflect to a considerable degree EU's real and financial sectors diversity. In a kind of stylised characterisation of the national and regional real goods sector and the financial infrastructure, we check for comparative advantages and aim to detect indicators that link the economic activity between both sectors. Additionally, we analyse whether differences in country performances are due to shortcomings in financing corporate investments and what might be workable solutions to overcome these deficiencies. Particular attention is given to SMEs and their local business conditions.

More specifically, chapter 2 analyses the recent process of convergence and divergence between and within the EU Member States to clarify the regional economic setting. Chapter 3 then aims to untangle the interlinkages between SMEs and regional development. Country-specific comparisons include criteria such as e.g. sector-wide aggregate value-added and employment as well as the prevalence and size structure of SMEs. Chapter 4 investigates external finance conditions of small and medium-sized enterprises. Surveys of the European Investment Bank and the European Investment Fund, respectively, are applied to characterise the advantages and shortcomings of the financial and economic infrastructures in the sample countries. Chapter 5 intends to characterize the regional financial industry based on indicators such as e.g. number and



size structure of banks, as well as bank branch density. Finally, chapter 6 draws first conclusions and identifies specific challenges the Covid-19 pandemic and the climate change pose to SMEs. We also set the course for the envisaged, more detailed subsequent empirical analysis.



## 2. Regional inequality in Europe – where do we stand?

Europe's regions are characterized by considerable heterogeneity. Economic (infra)structures differ significantly between and within Member States of the European Union (EU) and more specifically within the euro area.

These regional disparities emerge in the form of different levels of socio-economic development and may be related to income and wealth as well as other dimensions such as access to basic services, education and technical infrastructure. Taking GDP per capita (Purchasing Power Standard, PPS) as a first indicator for economic development and as a rough proxy for standard of living reveals a considerable regional divergence in the European Union, e.g. on the level of NUTS 2 regions (see figure 2.1). On one side, regions with an above-average level of GDP per capita can be found in an area that stretches from northern Italy to Austria and Germany which then splits off in two sections, one covering part of the Benelux countries and southern Ireland, while the other encompasses Nordic Member States (see figure 2.1). On the other side regions with below-average per capita incomes can be differentiated into two categories: areas in southern Europe that are also characterized by relative low-income growth and regions in central and eastern Europe that typically have even lower per capita incomes but at the same time higher growth rates. Most low-income regions are sparsely populated and rural or else post-industrial.

It is important to keep in mind that a more detailed inspection might also reveal considerable internal disparities within these fairly large NUTS2 regions. Some high-income NUTS2 regions include relatively low-income subregions. Similarly, some low-income regions comprise – mainly metropolitan – high-income areas in particular in central and eastern Europe.

While this current snapshot indicates considerable heterogeneity in regional incomes, there are at the same time important dynamics of convergence and divergence at work. On the market level, decisions of firms e.g. on where to locate their production sites might induce centrifugal and/or centripetal forces. At the same time, EU policies also enforce both tendencies, e.g. regional and cohesion policies have the explicit goal of mitigating regional disparities while internal market policies might have diverging regional developments as a negative side effect (Baldwin & Wyplosz, 2009).

How have differences in income per capita in the EU developed over time? Did the economic development on the national and the regional level converge? An important concept to evaluate whether regions converge or diverge is the well-known so-called  $\beta$ -convergence (Barro & Sala-i-Martin, 2003; Herz & Roeger, 1995). A group of countries converge economically, if high-income countries grow more slowly than low-income countries, so that the income gap diminishes over time.

On the level of its Member States, a remarkable process of income convergence has taken place in the EU over the last decades. EU countries with below-average GDP per inhabitant have typically grown faster than countries with GDP per capita above EU average. As a consequence, income per capita of these economies converged, the original income gap declined. In particular, the central and eastern European accession countries have followed a steady and impressive path

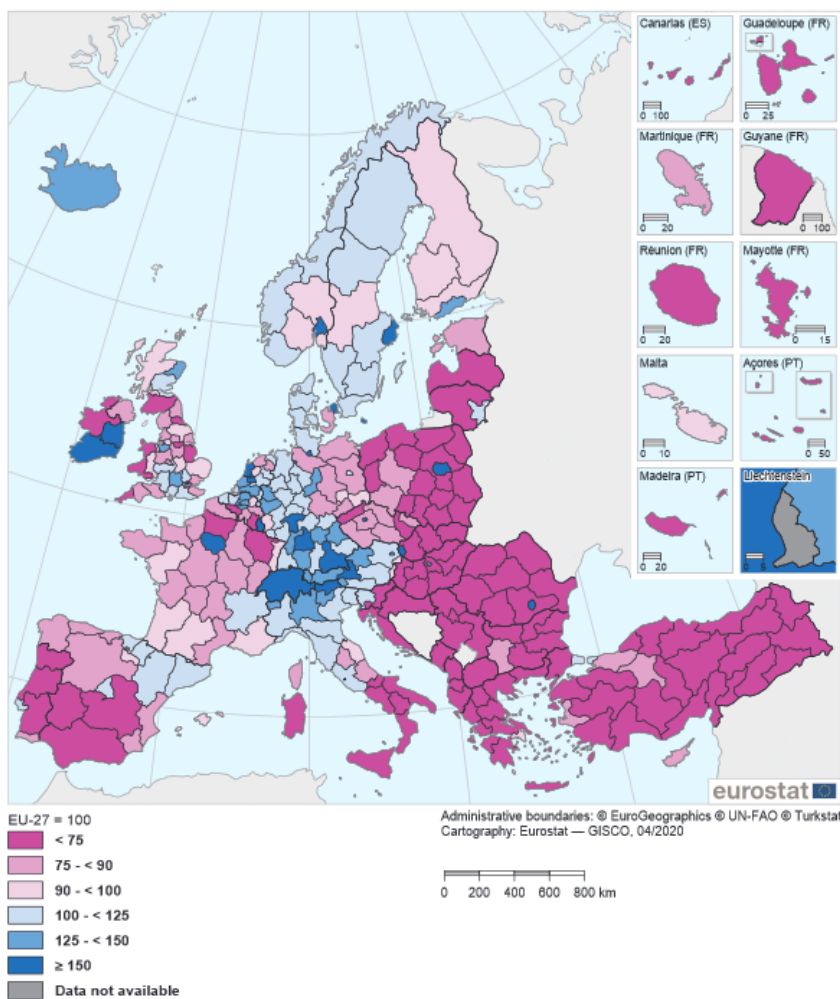




in this process of catching up, with some countries more than doubling their relative income per inhabitant within less than twenty years (see figure 2.2). Even those hit hardest by the financial crisis have continued to catch up after very deep but relatively short recessions (Aldici, 2019).

**Figure 2.1: Regional heterogeneity in the EU**

**(GDP per inhabitant, PPS, relative to EU average, NUTS 2 regions, 2018)**



Source: Eurostat (2020)

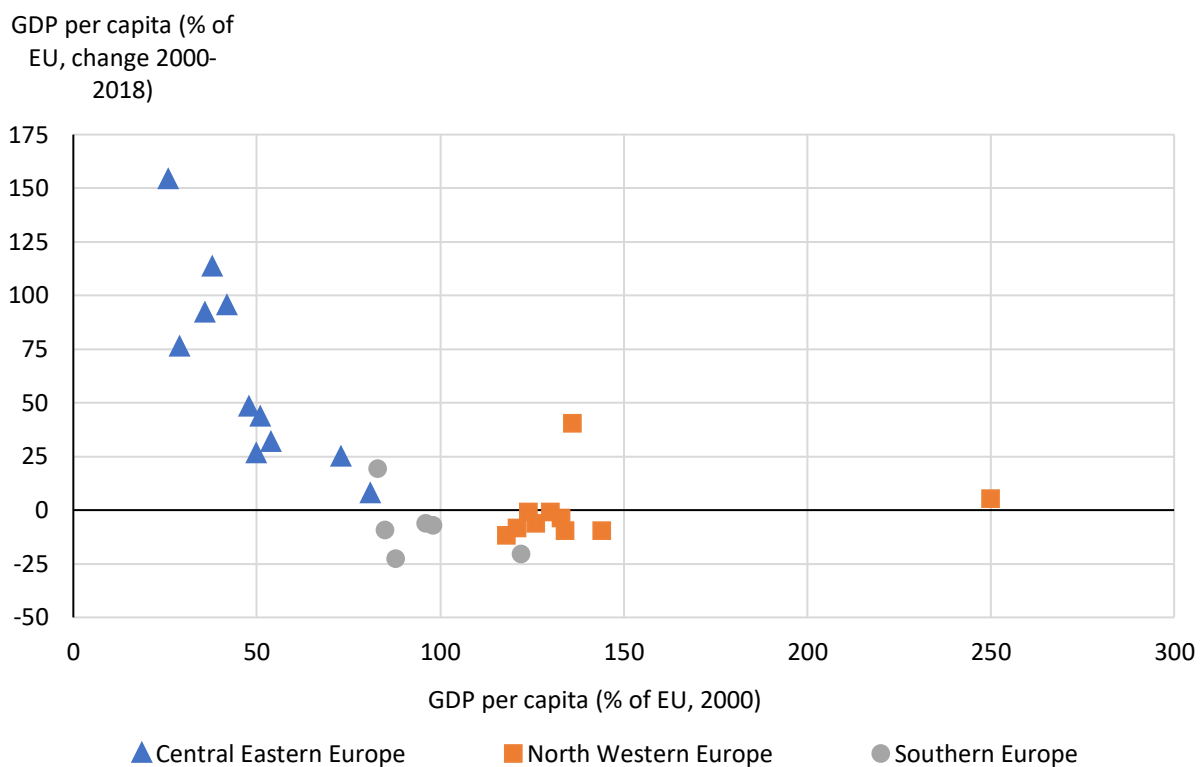
A closer inspection of figure 2.2 also reveals that within the group of the older EU Member States, in particular, poorer countries from the south are struggling to keep up with the average GDP



growth in the EU. While the east-west divide seems to have diminished, the north-south gap stagnated. Figure 2.3 illustrates this conclusion on the level of the EU Member States. The central and eastern countries have been on a very successful convergence path during the last two decades and have been able to considerably reduce the income gap to the other Member States and thus to substantially improve their relative income position. At the same time the income gap also diminished due to the lower than average economic growth of the western and northern countries. A similar, however, more distinct trend holds for France, Italy and Greece.

**Figure 2.2: Income convergence between EU Member States**

**(GDP per capita, PPS, % of EU27 average in 2000 vs. change in % of EU27 in 2000-18)**



Source: Eurostat (2020), own calculations.

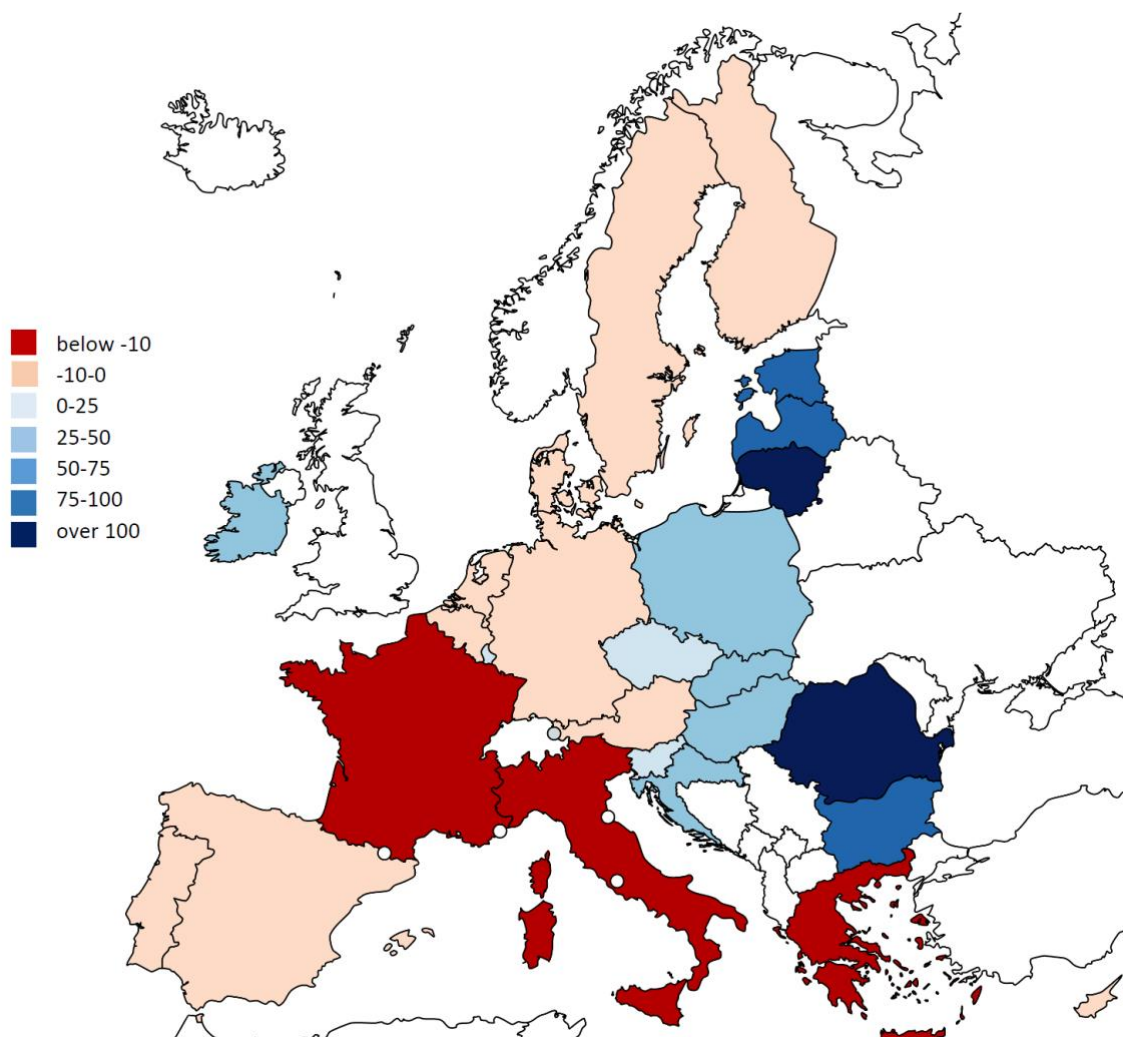
At the same time, the process of  $\beta$ -convergence has been much more muted on the regional level, so that regional income differentials have been reduced to a far lesser degree, if at all (Goecke & Hüther 2016). On this more disaggregated regional level, the difference in regional convergence between northern, western, southern as well as central and eastern regions becomes even more





evident (figure 2.4). While in central and eastern Europe most regions display positive income growth over the last two decades resulting, most southern regions grew more slowly than the EU average, i.e. their rate of relative income change was negative. Northern and western regions fit the model of income convergence as they had relatively modest growth rates albeit at a relatively high level of income.

**Figure 2.3: Change in relative income position of EU Member States**  
(GDP per capita, PPS, % of EU27 average, change in 2000-18)



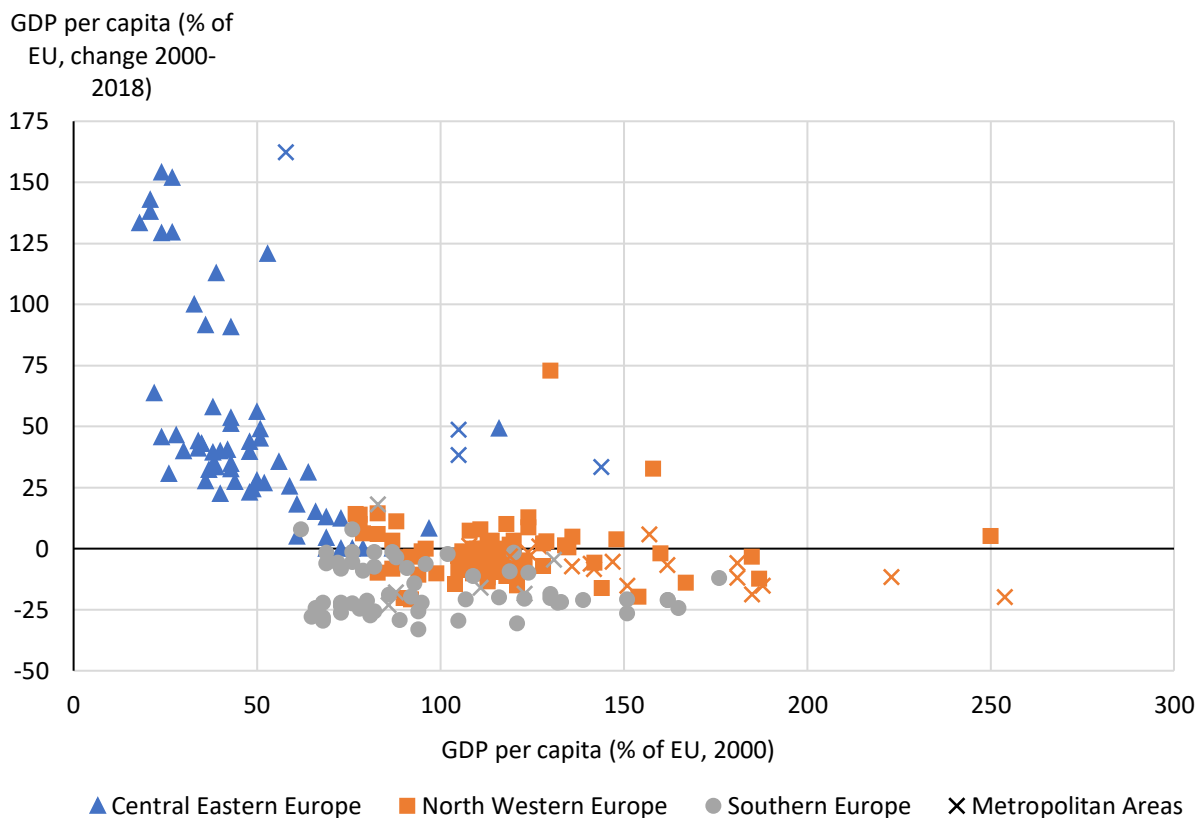
Source: Eurostat (2020), own calculations.



Interestingly, metropolitan areas fit this general pattern quite well. They typically have higher income per capita but their growth rates are accordingly lower, i.e. their relative income grows at a lower rate than the EU average. As an exception, metropolitan regions in eastern and central Europe have higher per capita income growth than would be expected given their already relatively high per capita income.

**Figure 2.4: Income convergence between EU NUTS 2 regions**

**(GDP per capita, PPS, % of EU27 average 2000 vs. change in % of EU27 in 2000-18)**



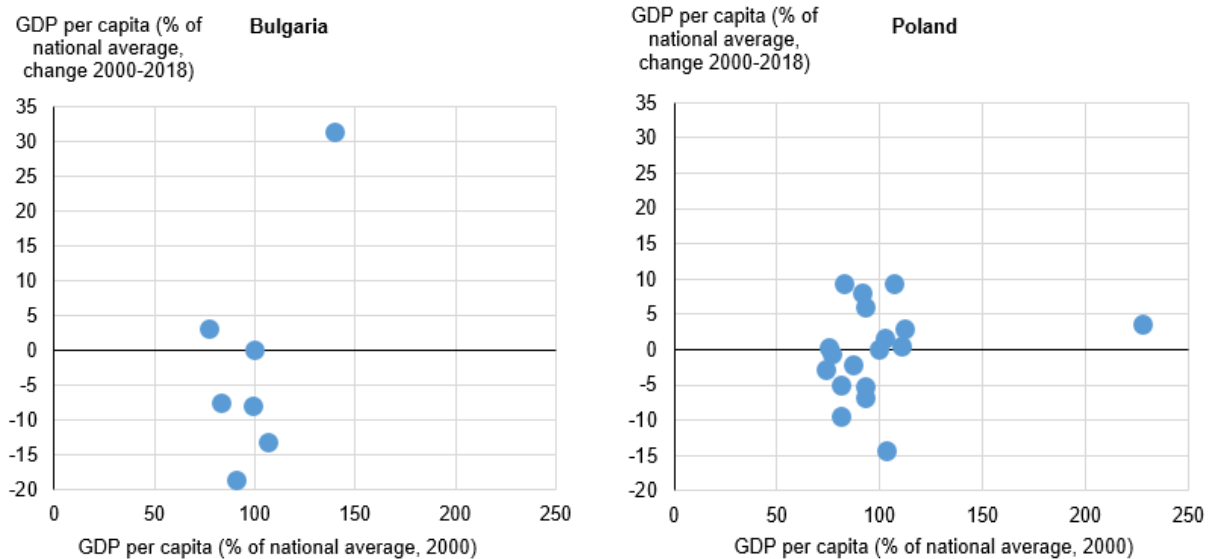
\* Metropolitan Areas are defined as regions with 500 or more inhabitants per square kilometre

Source: Eurostat (2020), own calculations.

Accordingly, this discrepancy between convergence on the national and regional level is most striking in several central and eastern European Member States. Countries like Poland and Bulgaria catch up as nations to the EU average, while income discrepancies within these countries increased, i.e. internally they are marked by a process of divergence (figure 2.5).



**Figure 2.5: Income convergence within Bulgaria and Poland**  
(GDP per capita, PPS, NUTS 2 regions, 2000-2018)



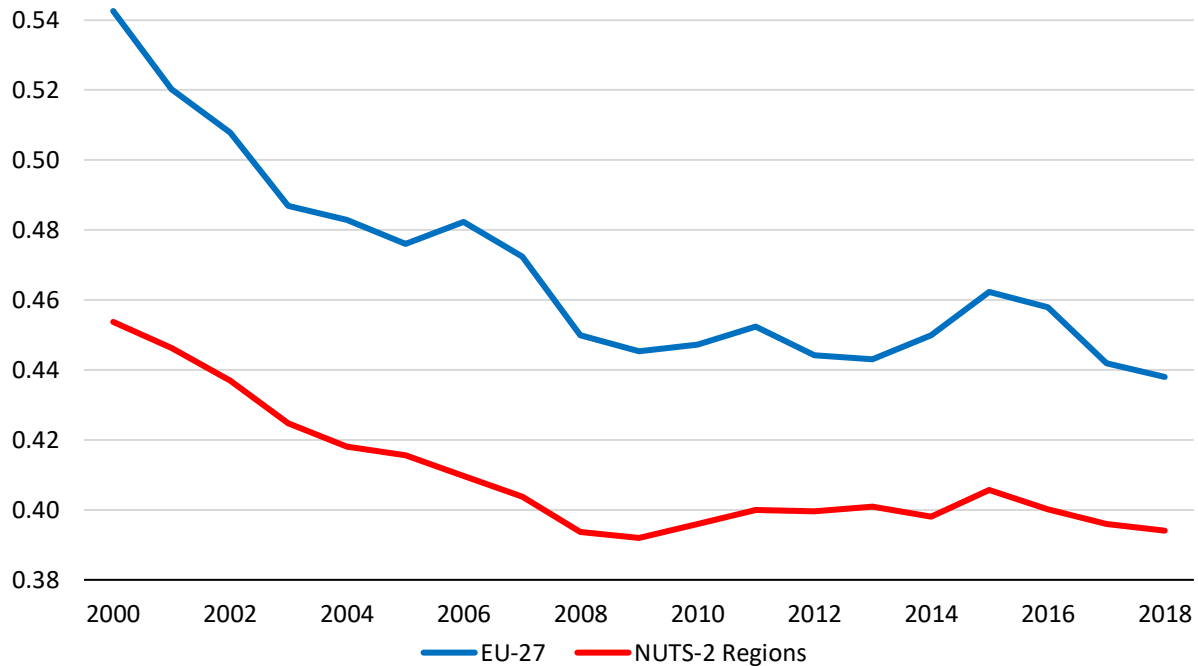
Source: Eurostat (2020), own calculations.

In Bulgaria, the capital region generates the highest GDP per capita in the country, and at the same time is also the fastest growing area, i.e. the economic disparities within the country increase over time. In Poland, the by far highest income per inhabitant is also found in the capital region, while there are other regions that grow faster. However, in the Warsaw region the economic growth rate is still above average, so that economic disparities increase.

How did these regional income discrepancies in the EU evolve? Following the second important concept in economic growth theory, the so-called  $\sigma$ -convergence, a straight forward way to evaluate the dynamics of heterogeneity in a group of countries or regions is based on the coefficient of variation, i.e., the standard deviation divided by the mean (Barro & Sala-i-Martin, 2003). It is an informative and widely used measure of the dispersion of GDP per capita (PPS) on the national and regional level. Interestingly, in this dimension, the process of income convergence came to an end around the time of the Great Financial Crisis and even reversed afterwards. Even several years after the second major crisis, the sovereign debt and banking crisis in the euro area, the process of regional  $\sigma$ -convergence still has not revived. In contrast to the process of  $\beta$ -convergence, there seem to exist only minor differences between the national and the regional level (see figure 2.6).



**Figure 2.6: Income disparities in the EU: Member States and NUTS 2 regions**  
(coefficient of variation, GDP per capita, PPS, 2000-2018)



Source: Eurostat (2020), own calculations.

This stagnation in regional convergence of per capita income is accompanied by another worrying trend. On the level of NUTS 2, regional income inequality is converging, however, on a higher level, i.e. regions become "equally more unequal" (Savia, 2019).

Given these stylized facts, how might the seemingly contradicting evidence on convergence and divergence be brought together? And what does this imply for the future development for European regions, for small and medium-sized enterprises as well as for regional banks?

The well-known core-periphery model (Krugman, 1991) elaborates how two opposing forces, namely agglomeration and dispersion, determine the spatial distribution of economic activities and thus regional income disparities. These factors are relevant for economic developments across as well as within countries, in particular in an entity like the European Union where national factors are increasingly less relevant not the least due to EU policies.



Agglomeration is driven by the interest of firms to be close to their customers (demand linkage) and other firms which use similar intermediate goods and require similar qualifications from their employees (cost linkages). Closely related are the benefits of an appropriate infrastructure. Easy access to finance is a particularly important input in this context. However, as economic activities increasingly concentrate in certain regions, economic conditions might deteriorate as more intense local competition, and rising costs due to increased congestion drive firms away, entailing a process of dispersion.

Evidently, the balance of these two opposing forces is affected by technological developments and the policy environment, i.e., in the EU context in particular internal market and cohesion policies. The internal market project aims to further economic integration within the EU by consolidating market regulations, increasing competition and lowering information and transaction costs. In this context, the dominant view in the EU debate seems to be that the economic opportunities associated with deeper economic integration go hand in hand with increasing economic prosperity and diminishing regional economic difference. E.g. with the improved access to low-wage, low-income regions firms located in the core will want to shift production to the periphery, particularly in the manufacturing sector. Such a process of convergence might occur, but not necessarily so.

There is little doubt that economic integration and the free movement of capital, people, goods and services improve the level of efficiency of economic processes and generate overall benefits. However, they do not guarantee that these benefits are uniformly distributed across regions or that disadvantaged, low-income regions should even benefit disproportionately. To the contrary, deeper economic integration could hurt the periphery as it is likely to lead to more spatial concentration as agglomeration forces tend to be self-enforcing, driven by physical and human capital mobility and technology spillovers (Baldwin & Wyplosz, 2009). Self-fulfilling expectations on future wage-differentials, costs and speed of migration, together with stronger increasing returns can further strengthen agglomeration tendencies (Krugman, 1991).

Lower transport and transaction costs have two effects under increasing returns to scale. Firstly, they make it easier to move production to low-cost regions and secondly to concentrate production due to increasing returns, possibly even in a high-cost region. With transport costs decreasing, it might become profitable to concentrate production at a high-cost core region if the advantage of increasing returns and thus concentrated production compensate for transport costs from high-cost to low-cost region. As transport cost decrease further, production might move to a peripheral low-cost production site. This might result in a non-linear relation between transport costs on the one side and regional income disparities on the other side.

Against this background and given the empirical evidence discussed above, regional economic developments in the future could therefore diverge and territorial disparities increase. The historically much longer experiences in the US with income differences persisting despite an even more elevated degree of integration also support this way of thinking (Franks et al., 2018).



### **3. Small and medium-sized enterprises and regional economic development**

Practical policies of economic development increasingly abandon traditional approaches that mainly rely on recruiting large firms with a variety of financial incentives such as tax breaks and subsidies. Instead, they emphasize building enterprises from the ground up and on fostering the growth of already existing businesses, i.e. they focus on developing and expanding entrepreneurs and small businesses (Edmiston, 2007).

#### **3.1. Small and medium-sized enterprises as drivers of economic development – challenges and constraints**

SMEs are important providers of new jobs. In the EU for example, they have provided about 85% of all new jobs since 2014 (European Commission, 2019). At the same time, large firms have an advantage concerning job quality, as they typically provide jobs that are better paid, more stable, and create more job satisfaction. A major driver of the job creation by SMEs is their more innovative business approach. While large firms spend more on R&D, it is smaller enterprises that create more innovation value (Edmiston, 2007). Both types of firms have specific advantages in the innovation process. The advantage of big firms is of the material kind, e.g. better access to finance and larger production volumes to recover the fixed costs of R&D. The comparative advantage of SMEs is mostly behavioural (Vossen, 1998). With their lean organizational structures, they avoid entrenched bureaucracies with long chains of command and the concomitant inefficiencies and inflexibilities. As such SMEs are more innovative because they have less commitment to existing practices and products. They are mostly active in more competitive markets and have greater incentives to innovate and stay ahead in the competition. As ownership and management are typically more interlinked, SMEs are more ruled by the resolutions of the owner and the personal rewards of innovators are higher. Thus, it is also easier for them to construct innovation-friendly contracts (Edmiston, 2007).

These structural advantages of SMEs in the innovation process also play out more generally in other business activities. Their greater flexibility allows them among others to better and faster adapt to technology shifts and innovations as well as to fluctuations in the markets and new customer requirements (Gherghina et al., 2020). As such they are also better able to take advantage of emerging market opportunities

These specific features of SMEs make them also important drivers of regional economic development, and thus economic growth of countries more generally. As they are disproportionally located in rural areas, they are crucial for the development of rural regions and the diversity of Europe. SMEs are more intrinsically interlinked with their home regions as they use relatively more local resources and provide employment in their region. The profits they generate remain in



the region which in turn strengthens the regional economy and the region itself. These interlinkages can give rise to strong multiplier effects.

With their entrepreneurial character they further regional growth. They have a strategic interest in developing social capital by supporting education, science, research, development of information, and communication technologies on the local level (Mrva et al., 2014). As they generate more and better production they create new jobs, helping to mitigate poverty and disparities, and improving the quality of life. Even citizens who do not interact with SMEs directly benefit via an improved economic environment. Taken together SMEs do not only generate economic advantages but also offer numerous social and regional benefits which help to further economic development and social stability.

While SMEs provide their local communities with several benefits, they at the same time depend on their regional environment for positive inputs. A high skill level of the local labour force improves the level of productivity and the innovative power of SMEs. Depending on the specific economic sector, they require people with specific levels and types of education. Regional authorities are to ensure that skilled workers have the opportunity to be continually educated and trained throughout their professional lives.

Concerning regional economic structure, firms might also benefit from industrial clusters mainly due to external economies of scale and scope (see also section 2). These are based on factors like proximity to suppliers, labour pooling, more specialised labour supply, joint use of certain sources, knowledge spill-overs, cheaper access to inputs, easier market access as well as joint actions for common purposes. Clusters also frequently offer better infrastructure to firms (Herr & Nettekvoen, 2017). Complementing firms' physical and human capital, regions' social capital and networks might further support SMEs' economic performance (Cooke, Clifton & Oleaga, 2005). Rural areas might lack such access to goods and labour markets (North & Smallbone, 2000). Regional differences in access to finance, a crucial factor for the development of SMEs, is discussed in further detail in the subsequent section 4.

Currently, SMEs are confronted with additional demanding challenges. The most pressing and precarious tasks are related to the Covid-19 shock. Although governmental aid programmes have been or are on the way to being implemented on the level of EU member states as well as the EU, SMEs are typically more restricted and focused to regional markets than larger competitors. They have fewer options to diversify and to alleviate the negative effects of the crisis. As they are politically less influential than larger enterprises they are likely to receive less public support. Due to a weaker digital and logistic infrastructure in rural areas they have fewer options to cope with the Covid-19 shock which in turn is threatening local employment and welfare.





### 3.2. Small and medium-sized enterprises in the EU

It is well-known that the European Union's 25 million small and medium-sized enterprises are a major economic force – and that they are a very heterogeneous group of enterprises. When differentiating within the group of SMEs, the vast majority of enterprises are of the micro variety (less than 10 people). They employ almost one-third of all workers in the EU, an employment volume similar to the group of large enterprises. Small enterprises (10 - 49 workers) and medium-sized businesses (50 - 249 employees) provide about a fifth and a sixth respectively of the EU's total employment. Concerning value-added, each of the three size classes generates approximately a fifth of the EU's value-added (table 3.1).

Interestingly, there exist vast differences between the EU Member States not only with respect to the overall prevalence of SMEs but also the relative importance of the different size classes of SMEs. SME "density", defined as the number of SMEs per 1000 inhabitants, ranges between 30 in Romania and almost the fourfold value in the Czech Republic – 115 - in the group of lower-income countries. For the higher income countries of the north and west Sweden reports threefold the value of Germany, almost 90 compared to 35 (figure 3.1).

**Table 3.1: Number, employment and value-added of SMEs and large enterprises in the EU, 2018**

	Micro SMEs	Small SMEs	Medium-sized SMEs	All SMEs	Large enterprises	TOTAL - All enterprises
<i>Enterprises</i>						
Number	23,323,938	1,472,402	235,668	25,032,008	47,299	25,079,312
%	93.0%	5.9%	0.9%	99.8%	0.2%	100%
<i>Value added</i>						
Value in € (million)	1,610,134	1,358,496	1,388,416	4,357,046	3,367,321	7,723,625
%	20.8%	17.6%	18.0%	56.4%	43.6%	100.0%
<i>Employment</i>						
Number	43,527,668	29,541,260	24,670,024	97,738,952	49,045,644	146,784,592
%	29.7%	20.1%	16.8%	66.6%	33.4%	100.0%

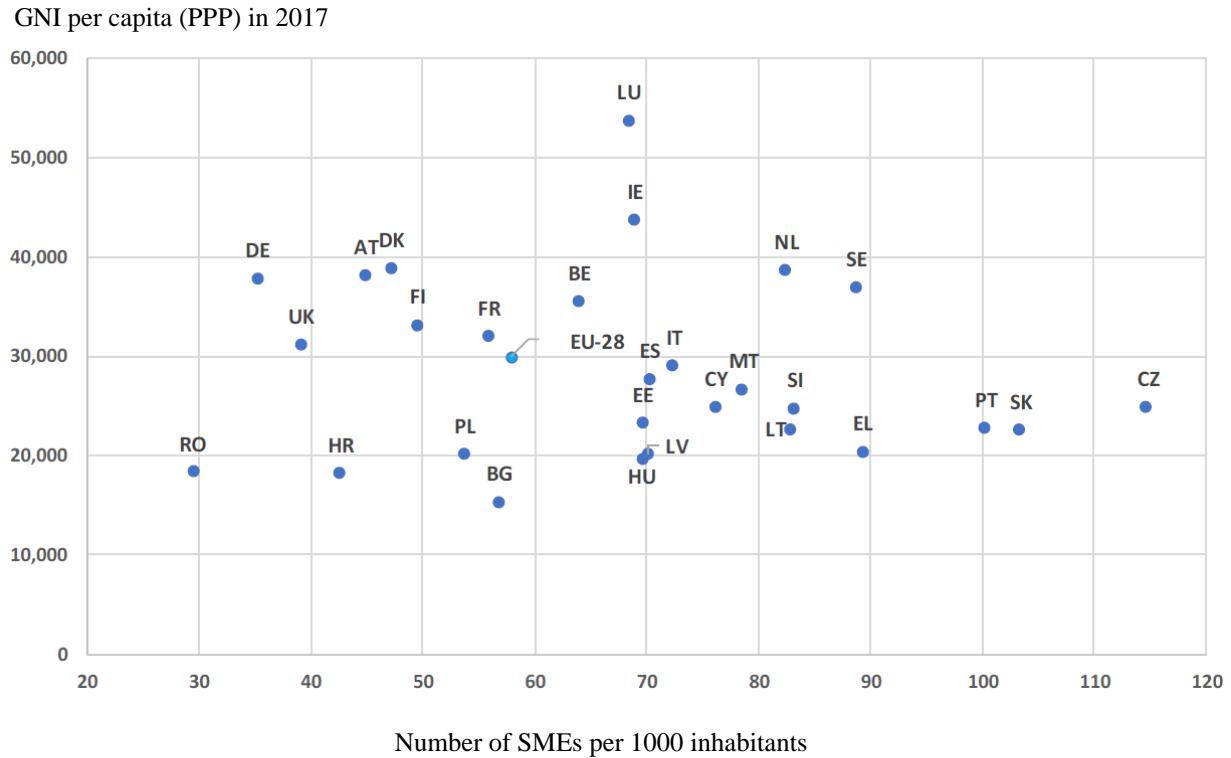
Source: European Commission (2019)

A more disaggregated analysis on the NUTS 2 level indicates that there also exist considerable differences in SMEs' prevalence within EU member countries, e.g. in France, Spain, and Italy. (figure 3.2)





**Figure 3.1: Number of SMEs and income per capita in the EU Member States in 2017**



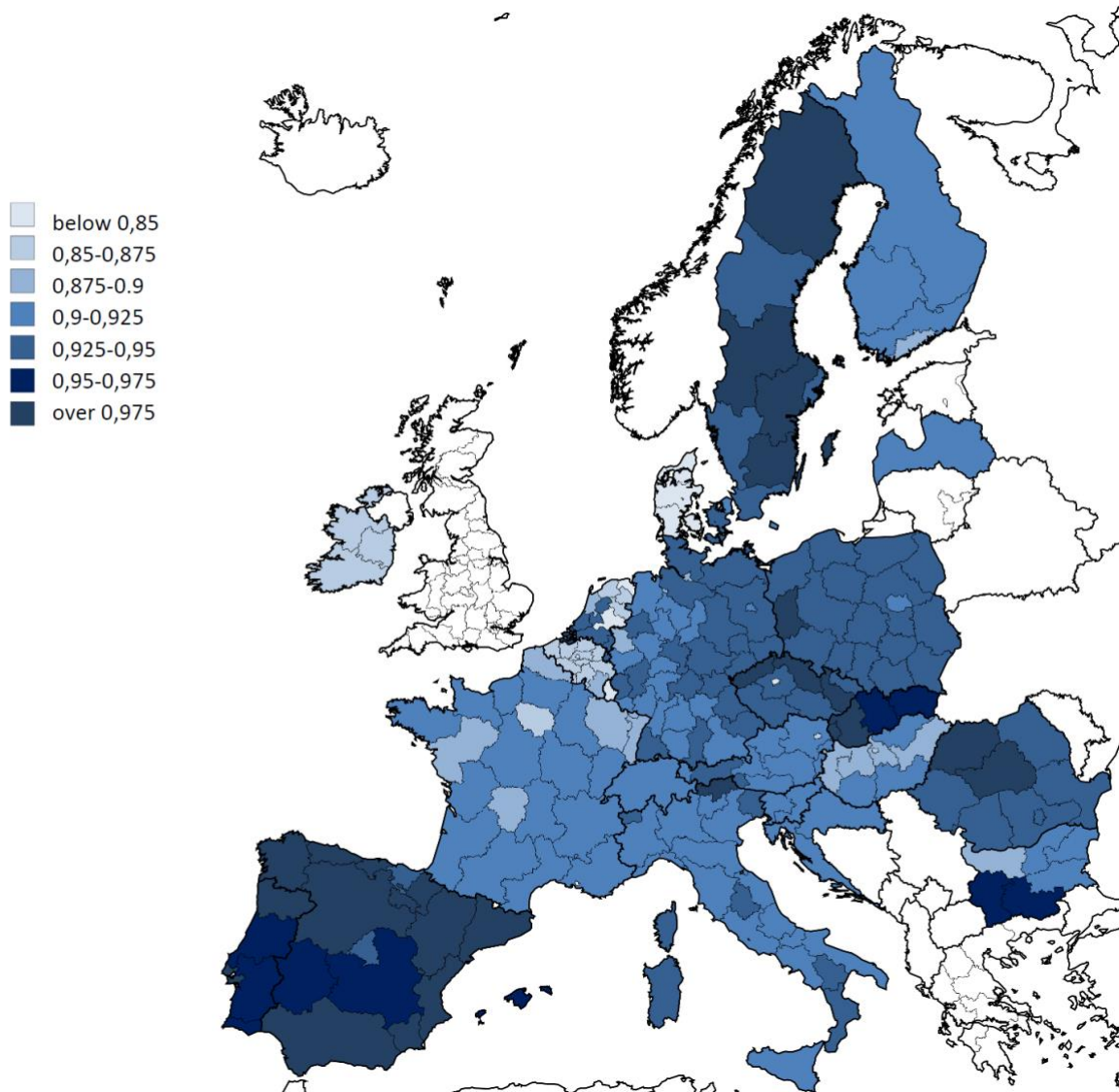
Source: European Commission (2020)

These national and regional differences also related to and reflect the considerable heterogeneity in the relative importance of the SME size classes in the EU Member States. Low-income countries are more likely to host micro SMEs, while high-income countries tend to have a relatively large share of small and medium-sized enterprises. However, several EU Member States break that pattern, e.g. on the one side Romania with a relatively large share of large SMEs, and on the other side the Netherlands and France with a relatively large number of micro SMEs (figure 3.3).

In the subsequent analyses, we focus on a subsample of EU Member States, first and foremost due to data limitations on the regional level, in particular in the field of local banks and the financial sector more generally. We have chosen to concentrate on the following six countries – Austria (AT), France (FR), Germany (DE), Italy (IT), Spain (ES), and Sweden (SE). Not only do they constitute a considerable portion of the EU concerning population (62%) and production (70%) but they also are quite representative of the diversity of national banking sectors and cultures in the EU (Gischer & Ilchmann, 2018; for a detailed analysis and characterization of the banking industry see chapter 5).



**Figure 3.2: Share of SMEs in EU NUTS2 regions (December 2020)**



Source: Bureau van Dijk (2020), own calculations.

Concerning the regional population distribution, Spain is characterized by a relatively large share of the people living in urban metropolitan areas and relatively few in rural areas. Austria is on the other side of the spectrum, with relatively equal shares of the population living in the three types of regions (figure 3.4).



**Figure 3.3: Share of micro, small and medium-sized enterprises in the EU Member States in 2018**



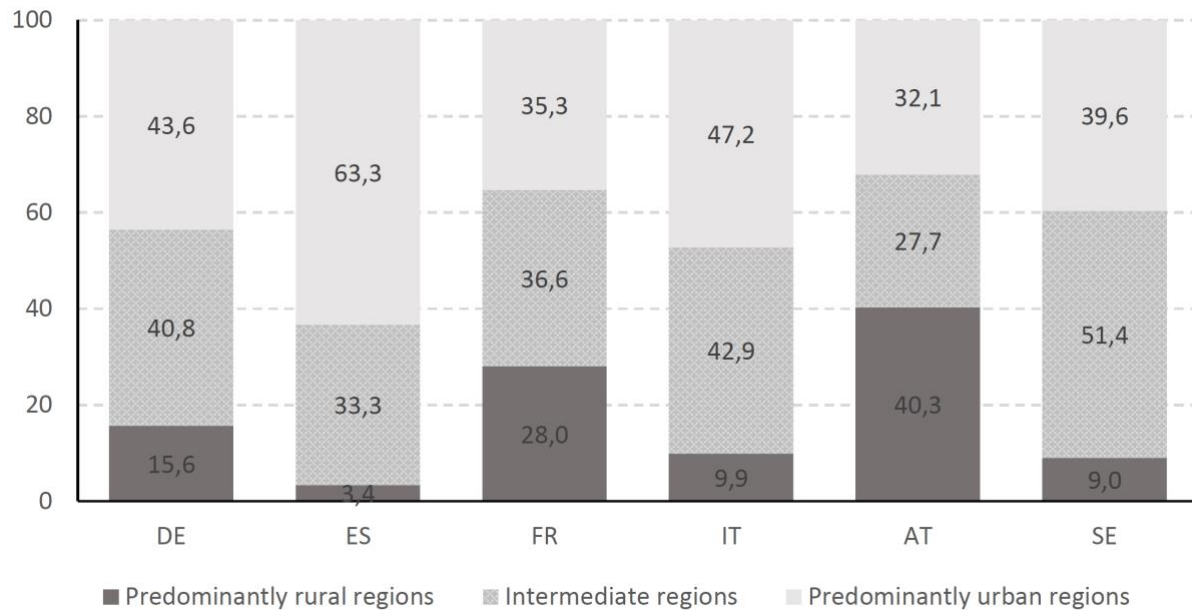
Source: European Commission (2020).

With respect to the relative weight of the sectors agriculture, industry, construction, and services our six sample countries again reflect the diversity of the EU economy (see figure 3.5). While the agricultural sector is relatively large in countries like Spain and Italy, the German and Austrian economies are marked by an above-average sized industrial sector. Construction is above average in Austria, Spain, and Sweden, while France is particularly heavy in services.

What specific role do SMEs play in these countries? And how have SMEs evolved in the regions and the EU more generally? When looking at our sample, different patterns become evident. Concerning the number of enterprises, two countries - Germany and Austria - have experienced a fairly steady increase, while two countries – Sweden and France – saw first an increase, then in the second half of this decade a drop in the number of SMEs. Finally, in two countries – Spain and Italy – the number of SMEs stagnated (see figure 3.6).

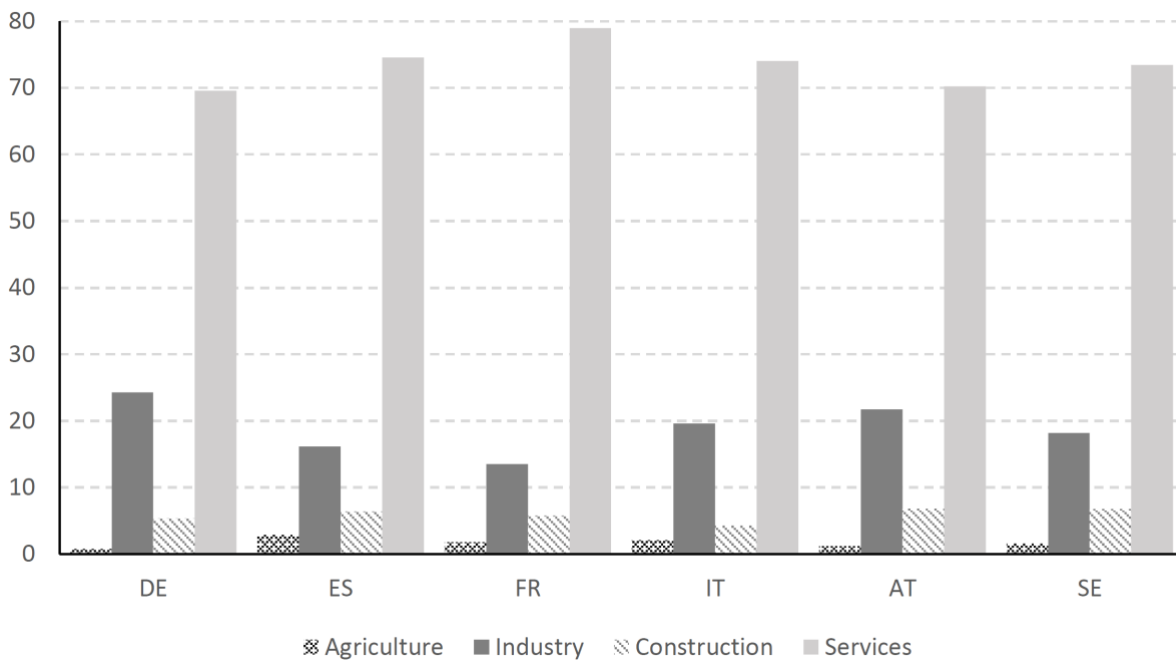


**Figure 3.4: Regional distribution of population in 2019**



Source: European Commission (2020).

**Figure 3.5: Share of gross value added by sector (percent, 2019)**

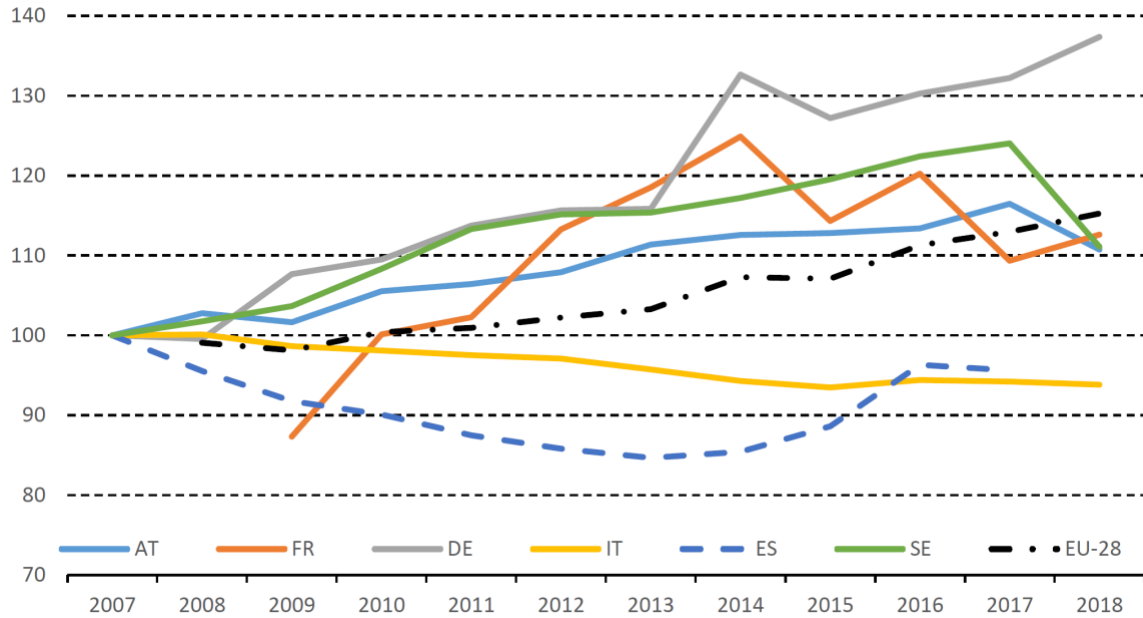


Source: European Commission (2020).



**Figure 3.6: Number of non-financial SMEs (2007-2018, 2007=100)**

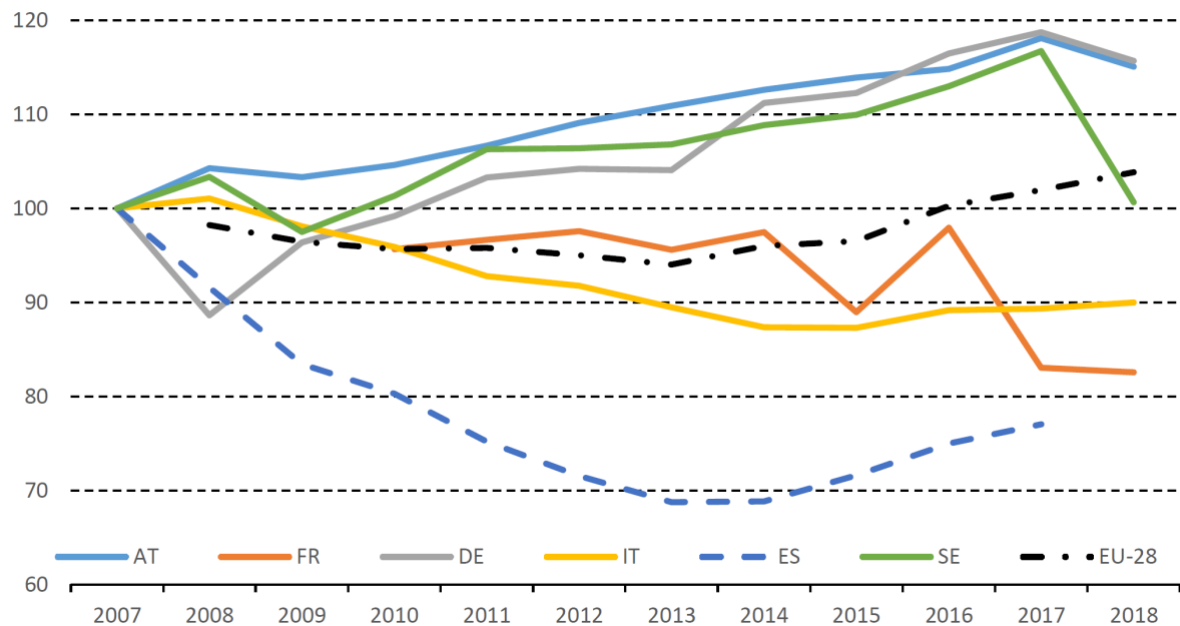
Index = 2007



Source: European Commission (2020), OECD (2019)

**Figure 3.7: Employment of non-financial SMEs (2007-2018, 2007=100)**

Index = 2007

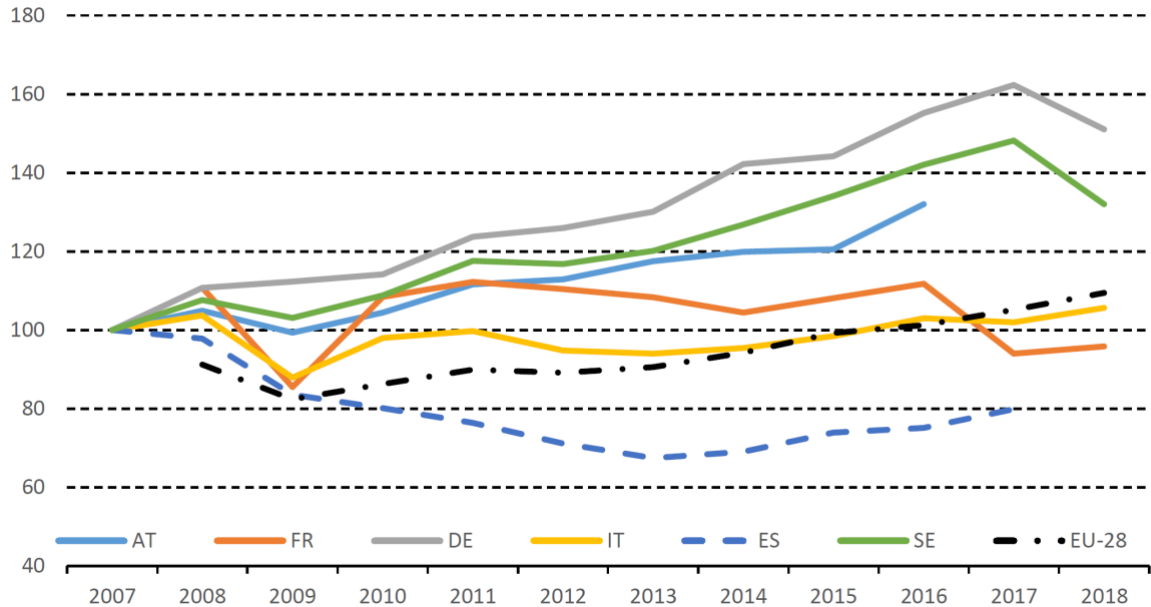


Source: European Commission (2020), OECD (2019)



**Figure 3.8: Value-added of non-financial SMEs (2007-2018, 2007=100)**

Index = 2007



Source: European Commission (2020), OECD (2019)

Concerning employment, the pattern more or less follows these trends (figure 3.7). In the period 2007-2018 SME employment grew by around 15% in the case of Germany and Austria, while it dropped by around one fifth in the case of Spain. Taken together employment growth in the countries of our sample is similar to the average growth in overall employment in the EU.

Finally, in the case of value-added, our sample countries on aggregate also seem to reflect EU wide developments on average, with three countries with lower than average performance, namely France, Italy, and Spain, while again Austria and Germany display stronger growth and Sweden following the EU average (figure 3.8).

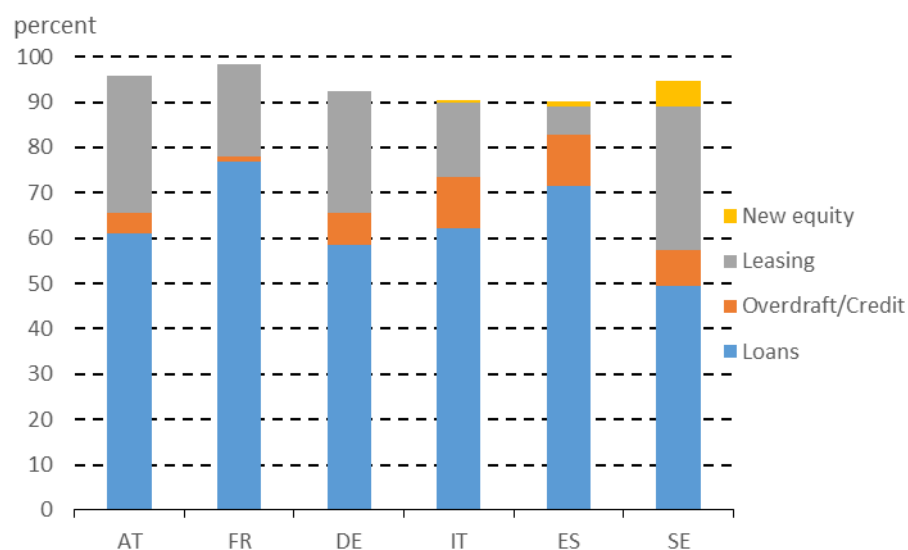


#### 4. Financing restrictions of European SMEs

For SMEs to realize their great potential as drivers of economic development access to external finance is a fundamental condition. For sufficiently large corporations both channels of sourcing are feasible, direct finance via capital markets as well as indirect finance provided by banks and other Monetary Financial Institutions. In contrast, SMEs options to acquire additional external fund are typically much more limited. Legal, technical and size requirements of capital markets are too demanding for SMEs, hence, MFIs are their favourite financial counterparts.

The annual European Investment Bank (EIB) Group Survey on Investment and Investment Finance (EIBIS) provides an EU-wide analysis that gathers qualitative and quantitative information on investment activities by SMEs and larger firms, their financing requirements and the difficulties they face. Figure 4.1 conveys a first impression of the respective circumstances in our sample countries for 2018.

**Figure 4.1: Composition of external investment finance of SMEs (2018)**



Source: European Investment Bank – EIBIS (2020)

The results are quite in line with general expectations: Regular bank loans make up for between 50 to almost 80 per cent of total external investment finance in the six countries under investigation. Leasing or hire purchases contribute another 30 per cent in some cases. Bank overdrafts or other credit lines play a minor role, while newly issued equity is a visible part of external investment finance only in Sweden. Nevertheless, although the four sources of finance

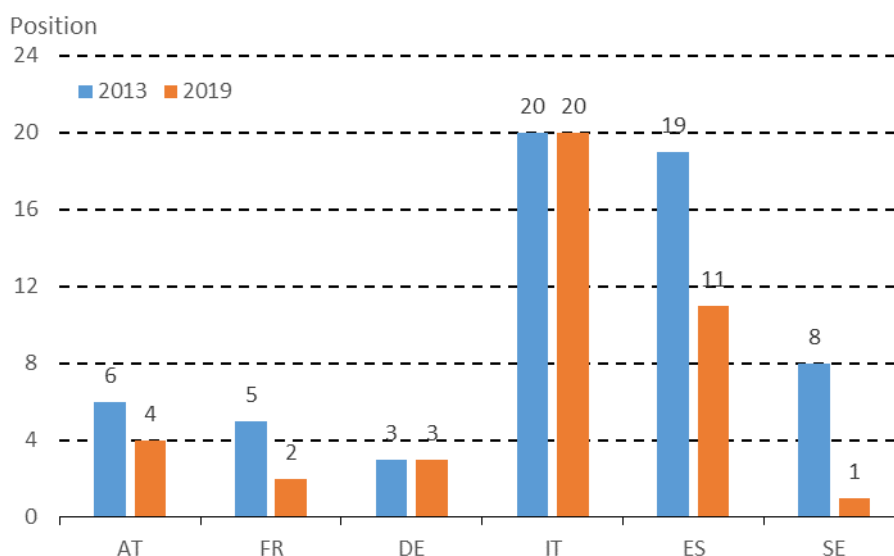


provide for at least 90 per cent of external funding, the pattern of their respective shares is quite mixed. Leasing seems to be a rather uncommon financing alternative in Spain, while French SMEs only very reluctantly take recourse to overdrafts.

However, the data so far only reflect effectively realized investments but do not offer more specific insights into financing conditions. To close this information gap, an EIB subsidiary, the European Investment Fund (EIF), established the "SME Access to Finance Index" (ESAF) in 2016 (Kraemer-Eis et al., 2016). The ESAF Index is a composite indicator that summarises the state of SME external financing markets for the EU countries and was developed in collaboration with the London School of Economics. The ESAF index provides a convenient tool to compare and benchmark country-level performances in the context of SMEs' access to finance in the EU (Torfs, 2020).<sup>1</sup>

The index includes four sub-categories (Loans, Equity, Credit and Leasing, and Macro) which almost perfectly fit with the major financial resources of SMEs identified in Figure 4.1. For each of these items, the whole set of countries is ranked, so that the total index includes a country-specific pattern of the relative positions in the sub-categories. This procedure enables a pragmatic comparison of financial developments over time.

**Figure 4.2: Country rankings for SME access to finance (ESAF Index, 2013, 2019)**



Source: European Investment Fund (2020)

<sup>1</sup> Valuable data support by the European Investment Fund, especially by Wouter Torfs, is gratefully acknowledged.





Before going into further details, a first glance at the changes in relative positions of our country sample is quite revealing. Only two countries of our group are not classified in the EU's top ten, i.e. Italy and Spain. Even worse, Italy was not able to improve financial access for SMEs and remains in the bottom third of EU Member States during the last decade. Spain quite obviously improved SME's access to financial resources and reached mid-table in 2019. In the same year, the remaining four countries make up for the very top of the ranking. Sweden, France, and Austria even improved their rankings during the last decade, while Germany kept its rank.

In the next step, we compare these overall classifications with EIB findings regarding effective finance restrictions of SMEs. In a periodical survey, SMEs have been asked whether they feel financially limited in their investment projects. Table 4.1 displays the proportion of firms under constraints.

**Table 4.1: Proportion of firms that are financially constrained (2018)**

	Per cent
AT	2,20
FR	5,71
DE	3,15
IT	7,22
ES	5,55
SE	3,66

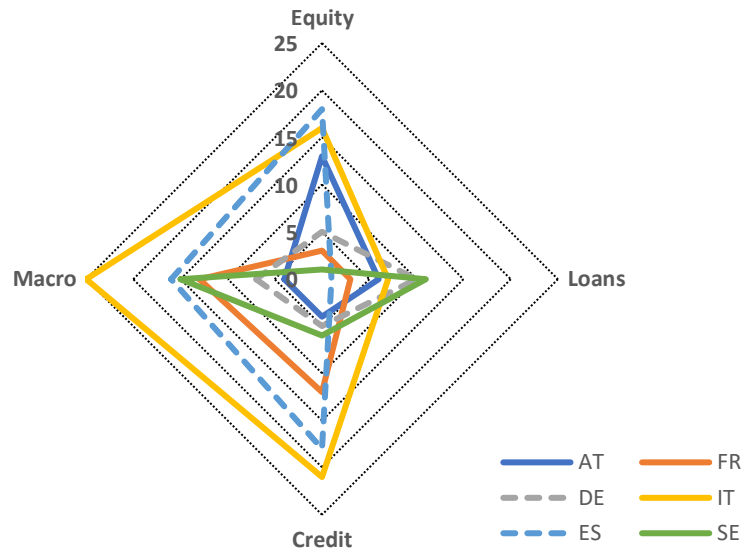
Source: European Investment Bank (2020)

It looks as if individual perceptions by SMEs do not completely correspond with (more or less) measured circumstances. France's level of financial restrictions appears rather high for a country with the EU's second-best market conditions. For Italy and Spain, the proportion of financially constrained firms seem to reasonably reflect the overall financial conditions, the remaining countries' scores are in line with their ranking.

Figures 4.3 reveals interesting details of particular business environments. Loans, especially bank loans, appear to have not been binding restrictions for SMEs, at least not in 2019. The largest restrictions and deviations between countries seem to exist for Macro- and Credit-conditions. Italy and Spain are ranked last in both sub-categories, and also concerning Equity. On the other hand, Sweden is top listed for Equity but depicts deficits for the Loans and Macro categories. Austria and Germany present somewhat balanced rankings in three sub-categories with one outlier only, i.e. Equity for Austria, and Loans in the case of Germany). In France, the situations for Loans and Equity is quite favourable, with drawbacks in sub-categories Macro and Credit.



**Figure 4.3: Rankings in ESAF sub-categories (2019)**



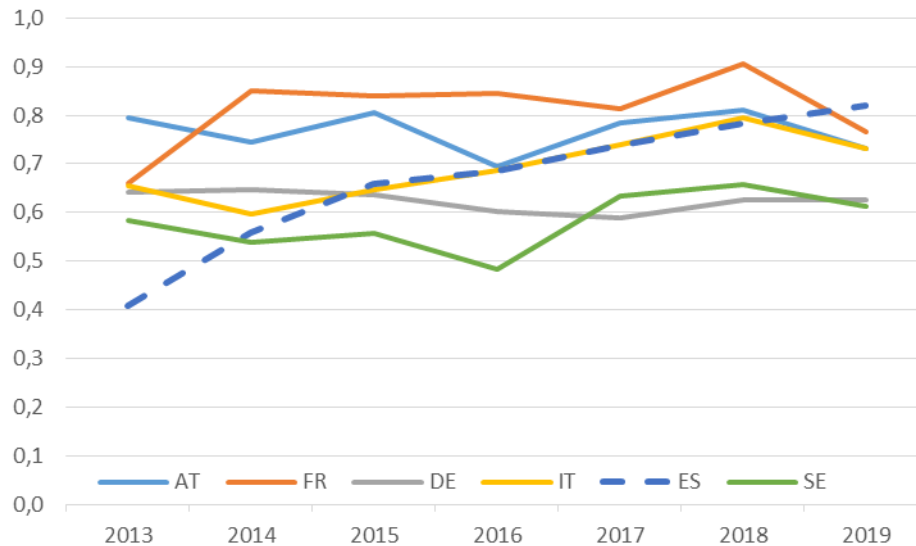
Source: European Investment Fund (2020), own calculations

A deeper look into the data is needed for additional information. The rankings in each sub-category only reflect the relative position of a particular country within the entire sample at a specific point in time. They neither convey indications about divergent levels nor about (nominal) changes over time. For reasons of comparability, the outcomes in the four sub-categories are normalized and geometrically aggregated (see Kraemer-Eis et al., 2016, pp. 8 ff.). Hence, the individual developments in our sample are quite interesting to decipher.

Since France hosts the largest banking sector (see chapter 5 for details), it is not surprising that the index of local access of SMEs to Loans overall is quite high. Also, the situation seems to be stable at least since 2014, as this sub-indicator hardly changes. Similar patterns of changes, although on a slightly or significantly lower level can be observed for Austria, and Sweden respectively. Germany's sub-indicator values are almost constant between 2013 and 2019, however, on a rather mediocre level. The conditions for Spanish SMEs on their national loan markets improved impressively during the last decade. Spain was ranked last in 2014 and ended up top of the list in 2019. All in all, the average level in sub-category Loans increased by 15 per cent while the spread between the lowest and the highest level dropped by nearly 50 per cent during the period under review.



**Figure 4.4: Sub-category Loans (2013-2019)**

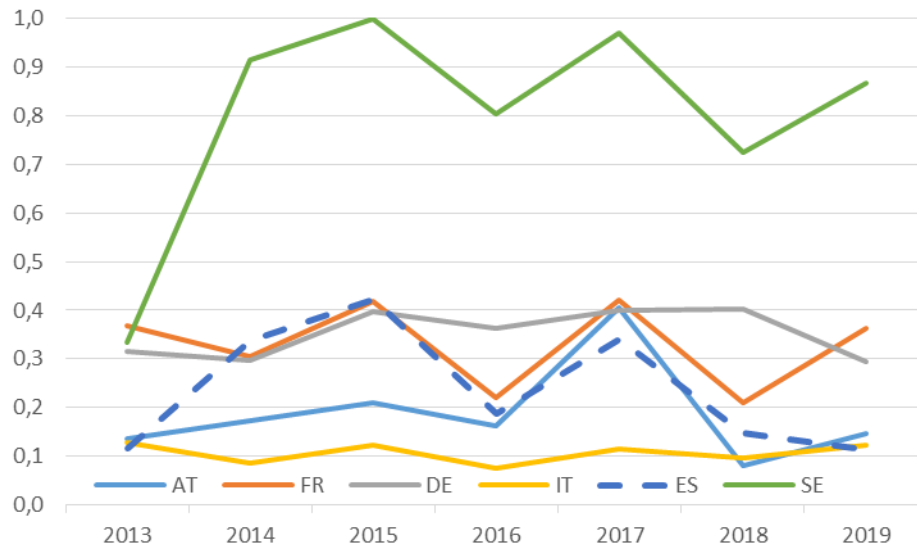


Source: European Investment Fund (2020).

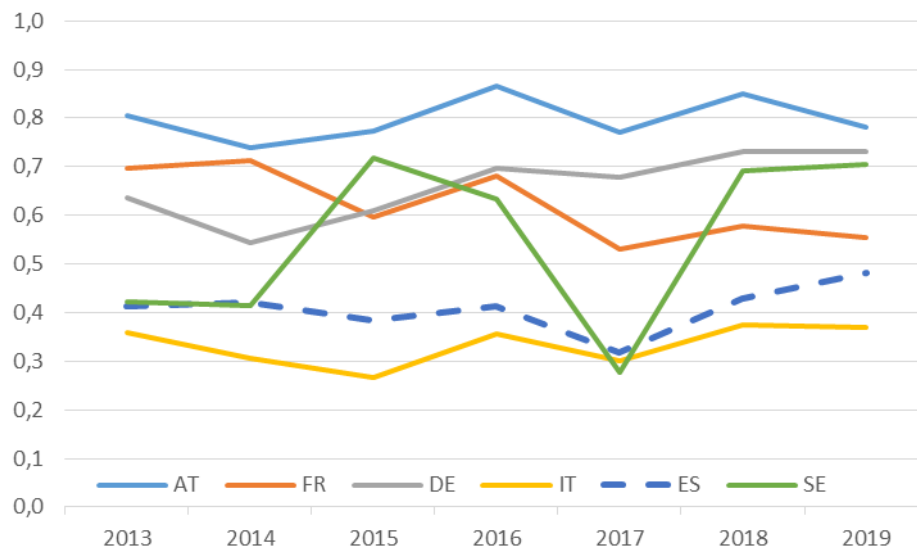
We know from Figure 4.1 that (new) equity is of minor importance for external investment financing of SMEs – with one exception: Sweden. The Scandinavian sub-indicator Equity got on a roll in 2015 and conditions remained very comfortable for the following years (see Figure 4.5). For German SMEs, requirements for attracting additional equity have been demanding but stable during this period, while Italian firms' access to equity is almost completely blocked. Enterprises in the remaining countries in our sample suffered from heavily fluctuating conditions, while there was no trend visible. In 2019, the respective sub-indicators for Austria, France, and Spain were almost at the same level than at the beginning in 2013. Even the steep rise in the case of Sweden did not raise the importance of equity as a source of external finance to more than an intermediate level on average (see Figure 4.1). Of course, the spread of the country measures in sub-category Equity increased by factor three (see Figure 4.5).

The third sub-category, Credit and Leasing, is also important in practice for external financing of SMEs' investment projects (see Figure 4.6). Changes of access to these resources are rather moderate, only Sweden presents some heavy ups and downs during the last decade.

Overall, conditions strongly improved in Sweden, moderately so in Germany and Spain, and deteriorate only in France. The findings for the sub-category Credit and Leasing correspond quite well with its relative impact on the SMEs' external finance structure referred to in Figure 4.1.

**Figure 4.5: Sub-category Equity (2013-2019)**

Source: European Investment Fund (2020)

**Figure 4.6: Sub-category Credit and Leasing (2013-2019)**

Source: European Investment Fund (2020)

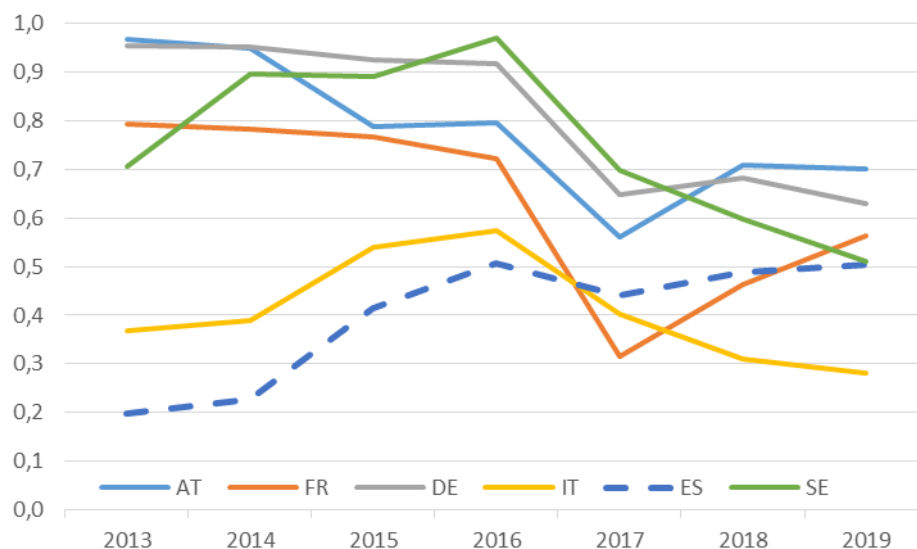
To some extent, macro-economic conditions for SMEs in our sample countries deteriorated dramatically during the second half of the period under review (see figure 4.7). In 2019, the



average sub-indicator listed about 20 per cent below its initial value in 2013. In contrast to all other countries, only Spain reports an almost continuous increase with more than doubling the index value over the observation period. The sub-indicator's spread dropped by nearly 40 per cent with Italy, Sweden, and Germany being on a continuous downward track.

These results are somewhat unexpected since the overall performance of the countries in our sample has been in principle rather positive. Hence, the particular conditions for SMEs did not develop in line with the economies as a whole. Increasing global, as well as national competition, challenged small and medium-sized enterprises disproportionately. It seems that it became more difficult and risky to establish and sustain cross-border supply chains in comparison to bigger firms and international trusts. Market shares are on stake and SMEs' contributions to their national BIP might decrease, most probably followed by dismissals of manpower and additional unemployment.

**Figure 4.7: Sub-category Macro (2013-2019)**



Source: European Investment Fund (2020)

Table 4.2 displays the condensed results of the more detailed observations above. The findings fit very well with the starting point of this section depicted in table 4.1. SMEs in countries with higher ESAF-indices complain less about actual restrictions to external financing sources. Thus, the index not only provides very useful and detailed information but also is a credible measure of economic conditions of SMEs.

**Table 4.2: Average value of ESAF-Index (2013 – 2019)**

	ESAF- Index
AT	0,5472
FR	0,5685
DE	0,5869
IT	0,3173
ES	0,4001
SE	0,6634

Source: European Investment Fund (2020), own calculations

Having described the particular economic situations of small and medium-sized firms, an investigation of possible reasons for their problems of attracting external financing funds is a necessary next step. In the following, we concentrate on three major obstacles:

- the massive increase of regulation in the banking industry,
- central banks' unconventional monetary policy, and
- distortions in international trade.

In the aftermath of the financial crisis and the bankruptcy of Lehman Bros. in 2008, not only the EU critically reviewed the shortcomings of regulating and supervising banks. Following the recommendations of the Basel Committee on Banking Supervision, known as Basel III, capital and liquidity requirements as well as the leverage ratio provisions have been extensively modified and tightened. Simultaneously, the EU started to establish a European Banking Union.

The consequences for banks were massive, the intensified rules seriously interfered the finance institutions' lending processes. The intensified regulations had been primarily designed for large (systemically relevant) banks. The goal was to especially avoid situations of "too big to fail" in which governmental interventions as a last resort are needed to compensate massive losses of private customers and to stabilize the banking sector. Hence, many of the additional new rules turned out to be rather complex and labour-intensive, so particularly smaller banks with traditional business models, e.g. retail banks, faced significantly rising costs (Schackmann-Fallis et al., 2019).

Besides, stronger capital requirements for default risks strained the attractiveness of corporate loans to SMEs. Many regionally operating intermediaries experienced the regulatory burden as endangering their institutional independence and mere survival. The EU's strategy of defragmentation created the impression of viable economies of scale and, therefore, called for consolidation in national banking markets. The results are discussed in further detail in section 5:

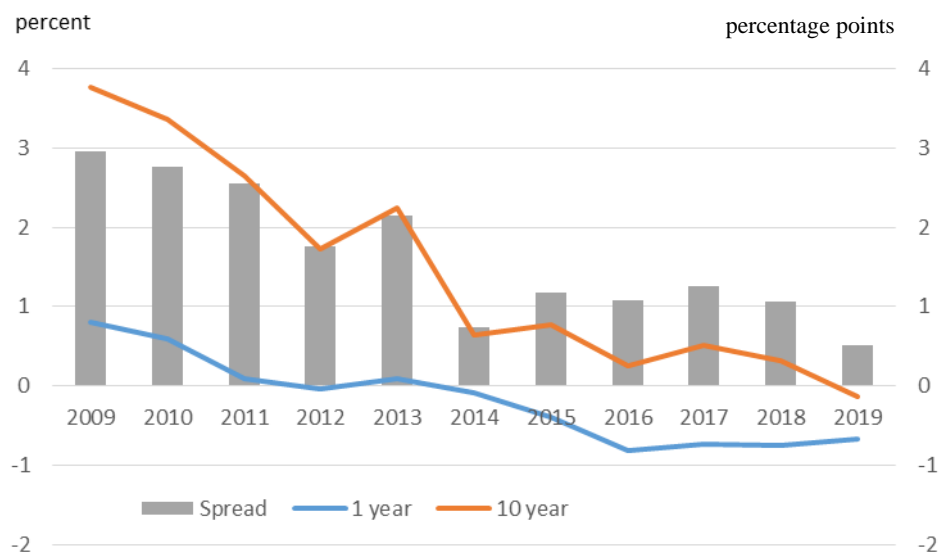


The number of financial institutions decreased, competitive pressures on SMEs intensified, while their access to external financing deteriorated.

So far, both processes, the implementation of Basel III and the establishment of the European Banking Union, created about 500 different legislative acts filling more than 50.000 pages of rules and instructions. Little fantasy is needed to understand that this mixed lot is almost impossible to handle for an average bank and, therefore, the crowding out of small financial entities continues and even accelerates. The negative impact on SMEs' external financing opportunities is apparent.

In July 2012, then ECB President Mario Draghi made his famous "whatever it takes" statement. Severe problems of the Euro, caused by increasing public debt burdens in many euro area countries, led to unconventional measures to stabilize the euro area economy. A persistent policy of low, even negative, interest rates combined with huge asset purchase programmes is still dominating ECB policy, with no end in sight.

**Figure 4.8: Yields and Yield Curve Spread (2009-2019)**



Source: European Central Bank (2020)

The results are extraordinary and of historical relevance. Figure 4.8 displays the market interest rates of prime rate sovereign bonds with one year and ten years remaining maturity, respectively. First conclusion: The "law" of a Zero Lower Bound (ZLB) does no longer hold, even long term bonds "earn" negative yields to maturity. Short term government bills quote negative yields almost since the start of ECB's new policy, the level appears to be rather stable during the last four years. Second conclusion: Long-term interest rates fell almost continuously over the last decade. Governments can make a profit by issuing debt obligations, a somewhat bizarre constellation.



Third conclusion: The yield spread pulverized to one-sixth of its value in 2009. The market paid a liquidity and risk premium of 52 bp only for a ten year over a one-year investment in 2019.

The last finding is of utmost importance for banks, in particular regional retail banks. A long term investment loan, a major product of these banks, incorporates a bundle of risks for the lender (Greenbaum & Thakor, 2007):

- **Default Risk:** A loan is a future contract, the lender executes first and has to rely on the borrower to fully honour his contractual duties. Since the latter might (partially) fail, eventual losses affect the lender first.
- **Interest Rate Risk:** Very often, in Germany even regularly, investment loans are fixed-rate contracts. If the loan's financing funds have the identical maturity of the loan, interest rate variations are of minor importance because expected profits can be easily calculated. But if the borrower has the option to prepay, he might use it if interest rates fall because he can refinance at a lower rate. Furthermore, banks try to use the interest rate spread to finance long term loans with shorter-term deposits.<sup>2</sup> In this case, (expected) interest expenses are significantly lower than (expected) interest income. However, with rising interest rates term transformation is a risky deal because increasing interest expenses reduce the profit margin of the underlying loan contract.
- **Liquidity Risk:** A bank with a long term loan portfolio has to make sure that any refinancing funds are not affected by unexpected withdrawals. Otherwise, the lender might be forced to sell assets (loans) for liquidity and could suffer from losses or even fail to sell his assets which could lead to illiquidity.

Recalling the findings in Figure 4.8, retail banks face unusual challenges. Interest levels for all maturities are extremely low, so potential borrowers are particularly interested in long term loans while depositors still prefer short term deposits. Term transformation is possible but very risky: If interest rates may rise in future, deposits get more expensive while interest income remains constant, hence profits will be further squeezed. Additionally, the profitability buffer, the spread, is currently very low, so small interest rate variations may cause significant problems in banks' income.

SMEs are interested in sustainable external financing conditions. As they always face specific investment and market risks, they try to avoid additional uncertainty at the loan front. At a low interest rate level, small and medium-sized enterprises prefer long-term fixed-rate loans while banks are more and more reluctant due to the risks described above. Hence, restricted access to loan financing is neither unexpected nor unjustified and likely to become more widespread.

Macroeconomic distortions convey additional explanations for observed problems of SMEs to attract external financing. EU's idea of one single European market is an attractive and constructive plan for improving national welfare as well as supporting less developed countries or regions at the margin of contemporary industrialized economies. The classical theory of mutual advantages

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<sup>2</sup> This procedure is frequently labelled as „term transformation" and consistently applied by retail banks, especially in Germany.





of international trade has been rediscovered in the last two decades, not at least through the entry of a "new" global player: China.

However, especially the large western countries had to learn how to cooperate with a competitor who does not always follow the (written or unwritten) rules, e.g. WTO accords but rather adopts his own approach. In the meantime, pragmatic practices produced novel and well-elaborated supply chains not only with China but also with additional newcomers in emerging markets. Hence, nowadays national SMEs are linked to suppliers and customers all over the world simultaneously facing unknown risks, shrinking margins, and increased competition.

These newly established frameworks turned out to be fragile and vulnerable. A high level of contagion, similar to characteristics of the financial crisis, became obvious. As is evident from Figure 4.7, considerable macro-economic turbulences occurred since 2017. These developments have been further intensified by the inauguration of the then-new US Administration. Without going into details, international partners of US firms also faced numerous unknown challenges with negative impacts on their home-turfs. Taken together, even marginal disorders can nowadays induce severe problems all over the world. The Covid-19 pandemic showed impressively how cross-border relationships and interdependencies reinforced national problems, e.g. supply of pharmaceuticals, groceries, or travel opportunities.



## 5. Local Banks and the European Banking Sector

The EU Member States are in principle organized as market economies with generally well-functioning markets. However, at least since the 1970s, several practical experiences and theoretical advances have shown that systematic market failures cannot be ruled out. Especially in situations under asymmetric information, the market-clearing function of prizes is not guaranteed. Situations like this are typical for credit markets where potential lenders are less informed than borrowers. Hence, most regularly moral hazard or adverse selection threatens financial intermediaries in loan negotiations (Stiglitz & Weiss, 1981; Greenbaum & Thakor, 2007).

Different strategies can be applied to reduce such information problems. A borrower who plans an almost riskless investment has an implicit incentive to reveal any required (and available) information to the lender. He signals his credit quality voluntarily and with lower costs than competitors with projects of inferior expected profitability (Spence, 1973). Simultaneously, the bank itself might engage in acquiring information about the (new) customer to evaluate the riskiness of a potential loan. Appropriate screenings are an important regulation device for institutional credit contracts nowadays (Art. 190 Regulation (EU) No 573/2013).

Both parties in a credit deal are interested to keep information cost as low as possible. Repeated contacts and contracts are useful instruments to build mutual confidence and to learn about each other's behaviour. These experiences constitute relationships that are beneficial for both sides, lenders as well as borrowers (Rajan & Petersen, 1993; Boot, 2000). An important determinant for generating (positive) information is firm size. Large companies whose stock is publicly traded on institutional exchange markets are regularly reviewed by rating agencies so that measures of their credit quality are very often broadly available.

The market position of SMEs differs significantly as they have to deal with their local financial infrastructure. In rural regions, the number of independent financial institutions is mostly limited and "soft facts", created by daily observations and non-business encounters, might affect lending decisions. The personal contact between the bank's loan officer and the owner or manager of a firm operates as a binding link and a relevant source of information. Hence, the geographical distance between banks and their customers can be highly relevant in formal credit analysis (Greenbaum & Thakor, 2007).

However, a company's dependence on a single lender entails also drawbacks. Since reputation and private information are extremely difficult to transfer, undesired lock-in-effects and prohibitive switching costs might occur (Klemperer, 1987). Market power in these constellations is severely biased and the bank might be able to exploit its dominant position since a borrower under pressure is unlikely to find an alternative creditor.

Overall, in daily practice, the benefits are likely to outweigh the disadvantages. A resilient relationship between a borrower and its bank reduces reservations or suspicion on both sides, so it is very often a "win-win-situation": The lender's credit risk can be more reliably assessed and the required risk premium and thus the interest rate can be lower than for previously unknown customers. In critical economic situations, the support of a longstanding "house bank" is more



likely because its expertise can be incorporated in an appropriate strategy for recovery. SME regularly (and voluntarily) rely on such relationship banking.

We already stressed the importance of the locational distance between a firm and its bank. For the EU-27 as a whole, the circumstances in this respect differ considerably between the Member States. Table 5.1 summarizes some stylized facts for the national banking industries.

**Table 5.1: Structure of the Banking Sectors in the EU, 2018**

	Number of credit institutions	Assets (€ million)	Loans (€ million)	Deposits (€ million)	Capital and reserves (€ million)	Staff
<b>Highest</b>	1584 (GER)	8810390 (FRA)	5412610 (FRA)	4701364 (FRA)	619746 (FRA)	564935 (GER)
<b>Median</b>	88 (BEL)	390771(POR)	239657 (POR)	234683 (FIN)	54456 (POR)	39434 (HUN)
<b>Lowest</b>	17 (SLO)	22792 (LAT)	18128 (LAT)	15318 (LAT)	3144 (LIT)	5044 (MAL)
<b>EU-27</b>	5698	34311914	21037059	19641609	2801947	2296454

Source: European Banking Federation (2020)

The wide disparities between the national banking systems are apparent, once again keeping in mind that the EU is made up of a group of very different countries. Germany encompasses more than a quarter of all EU's credit institutions, about 90 times more than Slovenia. Concerning staff, similar differences exist, the number of employees in Germany's banking industry is 110 times Malta's volume. The magnitude of finance is dominated by France: by far the most assets, loans, and deposits are maintained in French institutions. In contrast, Latvia is ranked last in all these categories. The differences in magnitude are rather huge, 400 times for assets, 300 times for loans and deposits, respectively. The entire sum of assets in Latvia is smaller than the balance sheet total of Germany's third-largest Sparkasse. Finally, Lithuania hosts the banking system with the lowest stock of capital and reserves, once more France is top of the list. Another aspect stands out: the medians in all categories are far away from the respective top and significantly nearer to the bottom. Overall the EU's financial industries reflect the relative size of the real goods sectors.

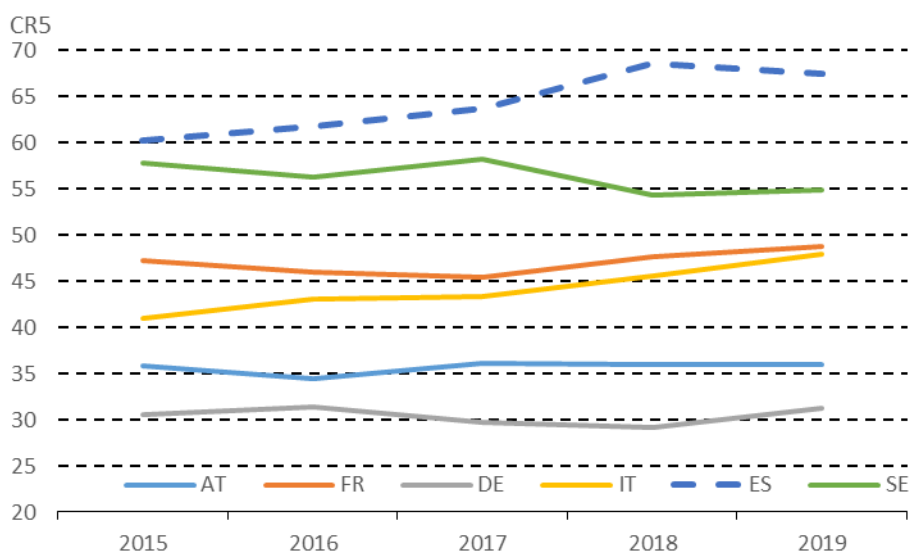
In our study, we concentrate due to severe data limitations on a sample of six counties with different features. According to assets, we incorporate the four largest national banking systems (France, Germany, Italy, and Spain) augmented by countries ranked 6 (Sweden) and 11 (Austria) in the EU-27. Table 5.2 conveys considerable dynamics in the respective countries' financial infrastructure. With a single exception, both the number of banks as well as the number of branches shrunk with two-digit growth rates between 2014 and 2018, the well-known, so-called "consolidation (better: concentration) process".

**Table 5.2: Changes in Banking Sectors (2014 – 2018, per cent)**

	AT	FR	DE	IT	ES	SE
<b>No. of banks</b>	-22,9	-6,3	-12,4	-23,9	-11,5	4,2
<b>No. of branches</b>	-16,1	-5,9	-24,5	-17,4	-17,6	-26,0
<b>Assets</b>	-4,2	7,7	-0,3	-8,8	-11,0	2,9

Source: Bank of International Settlement (2020), European Central Bank (2020), own calculations

Simultaneously, the quantitative relevance of the respective national banking systems changed, too. Spain and Italy report exceptional reductions in banks' aggregated assets since 2014, while French financial institutions grew in relative size by almost 8 per cent in the same period. The German and Swedish banking sectors more or less flatlined between 2014 and 2018, in Austria assets slightly diminished.

**Figure 5.1: Concentration ratios (CR5) in banking sectors (2015-2019)**

Source: European Central Bank (2020)

With consolidation or concentration in an industry, economists are especially interested in consequences for competition. Standard theory suggests that ongoing concentration facilitate



market power of growing firms and adversely affects customers. The concentration ratio (CR) represents a standard indicator of competition. The CR5, for example, measures the share of total assets of the five largest credit institutions in a national financial system. Figure 5.1 conveys a first impression.

At least three patterns are apparent: Firstly, quite distinct differences in the ratio levels, secondly, distinct slopes of the trajectories, and thirdly, differing dynamics of the national indicators. Only two countries, Austria and Germany, show an almost identical development while in the other economies the conditions of competition changed individually, see Table 5.3 for details.

**Table 5.3: Concentration ratios (CR5) in banking sectors (2015-2019)**

Country	Level	Slope	Dynamics
AT	low	constant	Low
FR	medium	constant	Medium
DE	low	constant	Low
IT	medium	positive	High
ES	high	positive	High
SE	high	negative	Medium

Source: European Central Bank (2020), own classifications

From a customer's point of view, the markets conditions in Austria and Germany are the most attractive in the sample as they face the least concentrated banking sectors. In Sweden, the competition seems to have slightly intensified recently, but concentration remains on a rather high level. Italy and Spain show a clear tendency of further strengthening the already existing market power of large institutions. In France, the level of competition was rather stable but CR5 increased visibly since 2017, the trend is towards the growing market power of a few major banks.

Although the financial infrastructure was subject to significant changes and the level of competition rather decreased than increased, spatial proximity might still be relevant for confident bank-customer-relationships even considering that financial services can easily be utilised via phone or internet nowadays. However, business loans habitually require direct personal contact between borrower and lender, so a short distance to a branch can still be very helpful. Hence, to evaluate national banking system, it is important to relate them to national characteristics such as e.g. population per bank, number of branches per bank, population per branch, operating area per bank and branch.

Table 5.4 illustrates in some dimensions, how diverse the national banking sectors of our sample countries still are. In a rapidly changing environment, Sweden looks like a calm anchor, with



almost no changes for half a decade. Very rapid transitions occurred in Austria and Italy where inhabitants per bank increased by more than 30 per cent in five years. The remaining countries underwent rather moderate adjustments, but at the end of the observation period, the dispersion (in absolute numbers) is larger than in the beginning. For Spain, in 2018 only less than 20 cities had more inhabitants than its average population per bank. Even in Germany, the country with the highest population density in our sample, inhabitants per bank on average add up to less than 25 per cent of Spain's figure.

**Table 5.4: Inhabitants per bank (2014-2018)**

	2014	2015	2016	2017	2018	Change (per cent)
AT	11952	12579	14113	15193	16044	34,2
FR	129603	138021	145245	132656	139391	7,6
DE	44791	46047	48384	50648	52337	16,8
IT	91550	94449	100377	112522	119679	30,7
ES	205403	212986	224671	223956	232175	13,0
SE	82169	84474	84812	84521	82724	0,7

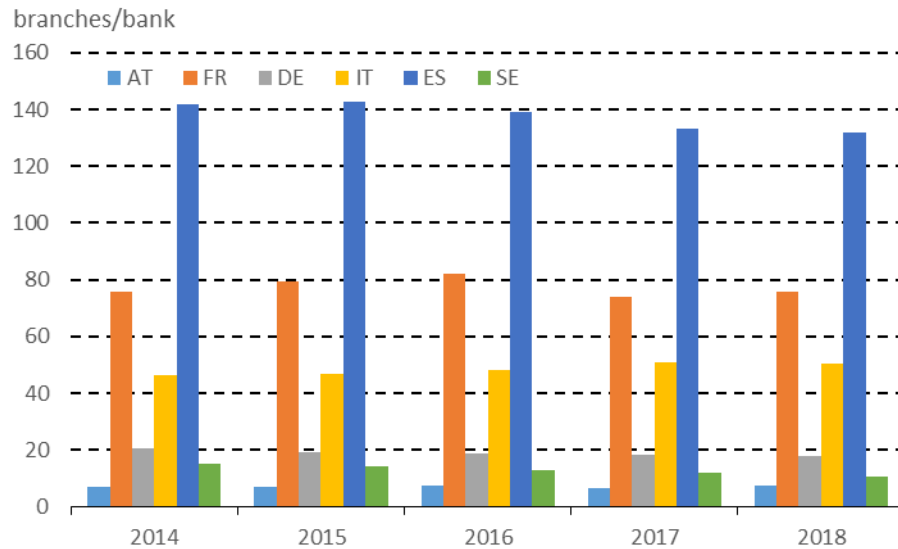
Source: Bank of International Settlement (2020), own calculations

Figure 5.2 suggests that many inhabitants per bank are not necessarily identical with spatial distance to customers. The countries with only a few banks provide a significantly extensive branch network. Spanish banks outperform within the sample. On average every independent credit institution operates nearly 140 branches. In contrast, Germany's banks on average are equipped with less than 20 branches only. This evidence supports our hypothesis that "Mediterranean" banks are most likely larger than their north-western counterparts.

As expected, on the branch level the national results change completely. The consolidation process since 2014 is especially marked in the case of Sweden and Germany, the service ratio effects are considerably smaller in the remaining countries. The Scandinavian outlier is due to regional specifics. Large parts of Sweden are very sparsely populated, the overwhelming majority of households and enterprises is settled in local centres that are widely spread over the country. Therefore, the average operating area of a Swedish bank's branch is up to nearly 30 times larger than in the rest of the sample countries (see Table 5.5).

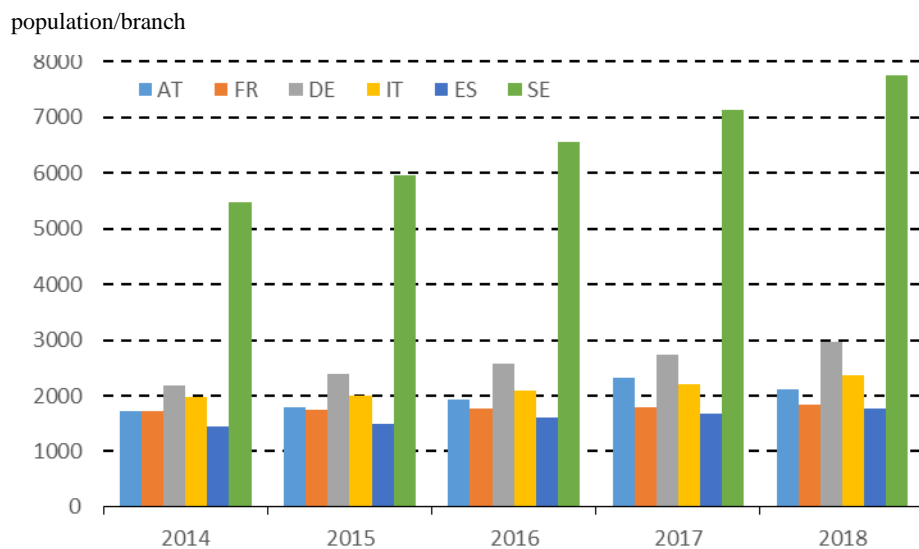


**Figure 5.2: Branches per bank (2014-2018)**



Source: Bank of International Settlement (2020), own calculations

**Figure 5.3: Inhabitants per branch (2014-2018)**



Source: Bank of International Settlement (2020), own calculations



As already pointed out, successful relationship banking requires appropriate spatial proximity between lender and borrower. If we accept a branch's operating area as an adequate proxy, our sample seems to fit quite well with this condition. Although, two limitations immediately challenge the results. The indicators embody "simple" arithmetical operations, averages, and do not consider any spatial or regional disparities. Actually, within countries regularly major differences in the levels of agglomeration occur, e.g. regional centres vs. rural districts. The population density in these areas varies and the incentive to open a bank branch increases with the number of inhabitants in short distance. Since this connection is valid for more than a single financial institution, competition induces the settlement of branches by rival banks, so that an uneven spatial distribution of bank offices is quite likely.

**Table 5.5: Operating area in sqkm/branch (2014-2018)**

	2014	2015	2016	2017	2018
<b>AT</b>	17	17	18	22	20
<b>FR</b>	14	15	15	15	15
<b>DE</b>	10	10	11	12	13
<b>IT</b>	10	10	10	11	12
<b>ES</b>	16	16	18	18	19
<b>SE</b>	254	274	297	319	343

Source: Bank of International Settlement (2020), own calculation

The second objection concerns a bank's corporate governance. Even if a subsidiary is in short distance to its customers, a loan negotiation with an SME requires skilled staff as well as sufficient expertise in several industrial sectors. Well qualified employees are expensive and therefore mostly concentrated in headquarters where their competence can be effectively allocated. Hence, branches in remote areas can deal with every day's issues while complex corporate loan decisions usually are part of a senior executive's responsibility located in headquarters.

Nevertheless, the ongoing incorporation of digital banking affects both the internal organization and the decision-making channels of financial institutions. More and more small branches in rural districts are converted to electronic service centres. Fewer but larger offices are established instead complemented by regionally operating expert centres, e.g. for mortgages, real estate, corporate loans. Figure 5.4 seems to support this line of argument.

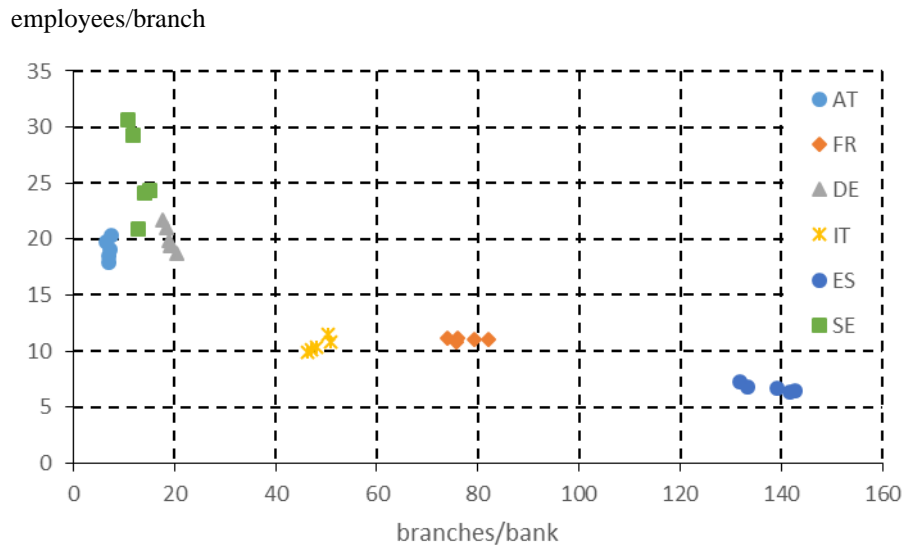
In Austria, Germany and Sweden, banks on average have only a few but relatively large branches with 20 to 30 employees. While this is a rather rough calculation, especially as the data does not show the local point of employment, the systematic difference compared to France, Italy and Spain





support the conclusion. In the latter countries, banks operate significantly more branches with a smaller number of employees on average. These observations fit with our hypothesis of divergent concepts of corporate governance.

**Figure 5.4: Number of branches and per branch employment (2014-2018)**



Source: Bank of International Settlement (2020), European Central Bank (2020), own calculations

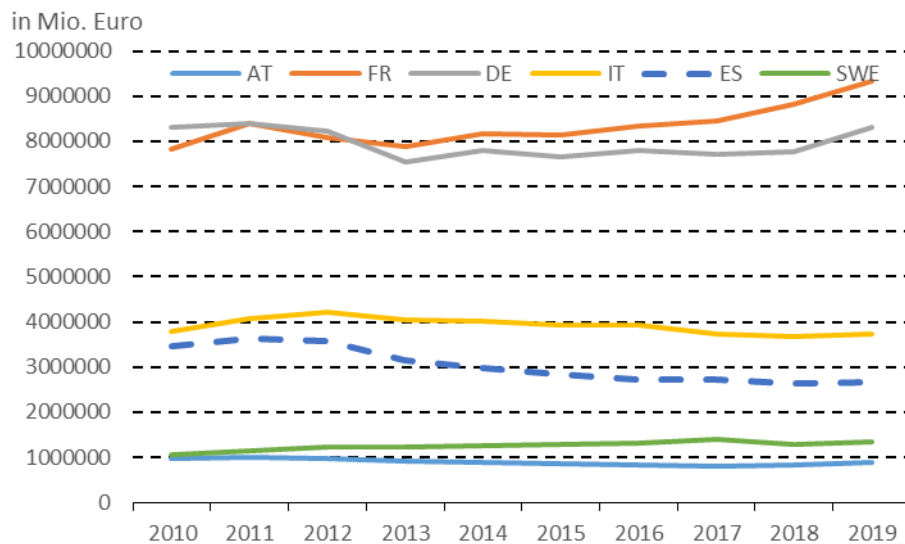
So far we mainly focused on infrastructural characteristics in our sample. A glance at the macroeconomic relevance of the financial industries finalises this section. Table 5.1 highlights the dispersion of attributes within the EU-27, Figure 5.5 adds information about the respective developments of the sample's finance sectors during the last decade.

Once again, already familiar patterns are visible. Not surprisingly, France and Germany host the by far largest banking sectors, Italy and Spain incorporate financial sectors on a medium level, while in Austria and Sweden smaller finance industries are adequate. To better illustrate the dynamics of the national banking industries, assets have been indexed to the starting point in 2010 in Figure 5.6.

The differences in national developments are impressive. Overall the Swedish banking sector grew by 25 per cent, while Spain's finance industry shrunk by more than 20 per cent at the same time. Besides Sweden, only France has seen an almost constant stable growth in bank assets. Germany relaunched after a fallback in 2013 caused by the introduction of the ECB's "unconventional monetary policy". Italy and Austria also suffered from changes in the ECB strategy, since 2017 a turn to the better is apparent for Austria.

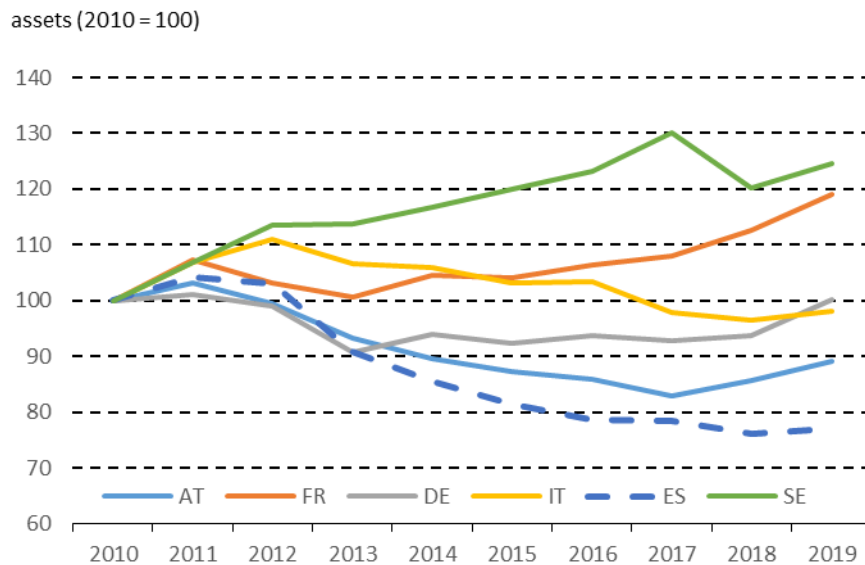


**Figure 5.5: Assets in the banking sector (2010-2019)**



Source: European Central Bank (2020)

**Figure 5.6: Asset dynamics in the banking industry (2010-2019)**



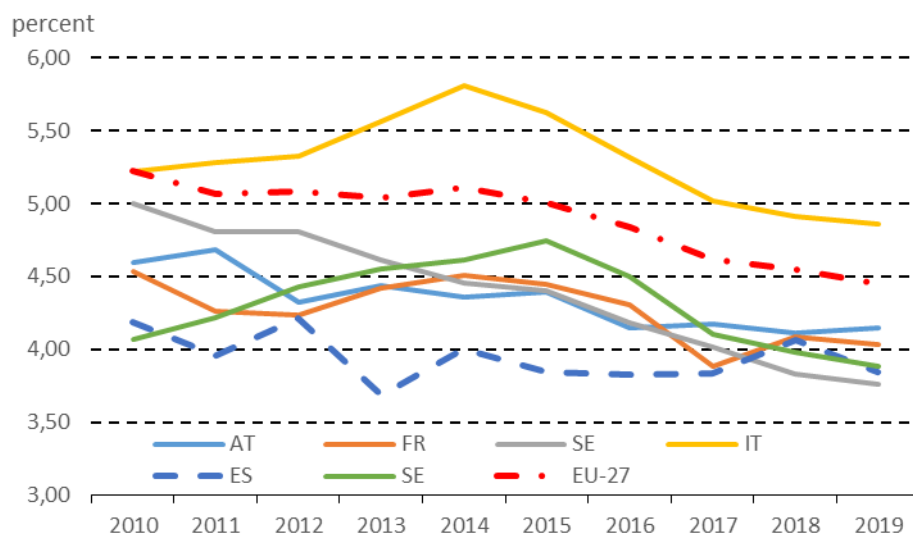
Source: European Central Bank (2020), own calculations

Figure 5.7 depicts the developments in the banking sector relative to the dynamics in the whole economy as measured by its share of a country's gross value added. The respective values for 2010



vary between 4,07 and 5,22 per cent. Only Italy reports a value on the level of the EU-27 average. The relative importance of the banking sector decreased in our sample countries and the EU on average since. While Italy's finance industry retained a share of almost 5 per cent of aggregate value added in 2019, in Germany the ratio shrunk by nearly a third until 2019. The figures suggest that the direct impact of the banking sector on a country's aggregate value-added is rather low and shrinking. The practical importance of financial institutions is indirectly generated via the multiplier effects of their service portfolio.

**Figure 5.7: Gross value added in the finance sector relative to the overall economy (2010-2019)**



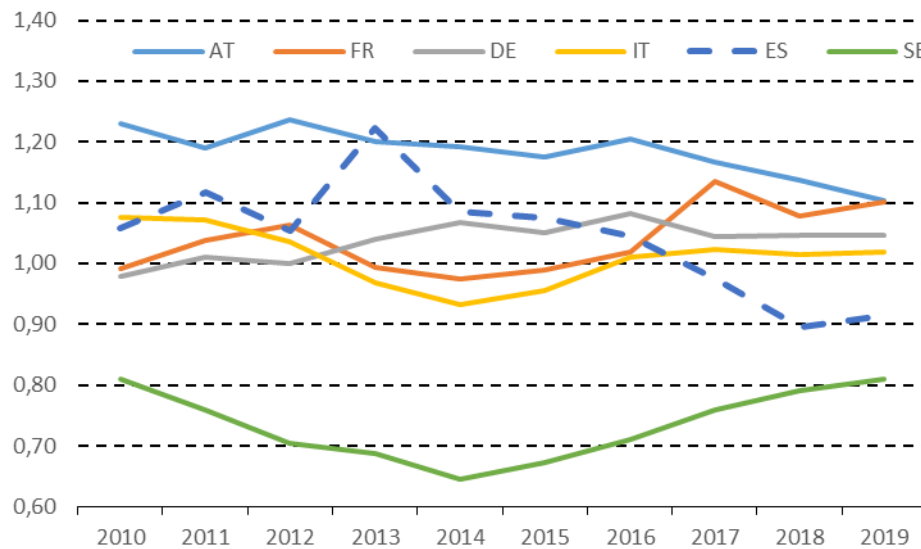
Source: Eurostat (2020), own calculations

Under this assumption, the (implicit) productivity of the financial industry should be measured in terms of income. Competition on factor markets alleged, the unit price for labour should equal its marginal productivity. With the above-mentioned multiplier effects, the "effective" productivity of an employee is higher than his direct impact on aggregate gross value added. Hence, his salary should also be higher than his contribution to gross value added. National accounting systems provide data for a first approximation.

At a first glance, the results from Figure 5.8 fit with our initial hypothesis. In the large majority of periods and countries, the non-dimensional ratio (decimal number) is greater than unity. This is equivalent to the fact that one (monetary) unit gross value added in the banking industry "earns" more than one (monetary) unit of compensation to employees. Jobs in the finance sector are, therefore, "technically" quite attractive.



**Figure 5.8: Share of compensation to employees relative to share of gross value added (2010-2019)**



Source: Eurostat (2020), own calculations

But Figure 5.8 also shows that conditions changed especially in Austria and Spain during the last four years. In both countries, the ratios declined considerably, for Spain it dropped below the unity level. The opposite is visible for France where the ratio maintained at 1,1. In Sweden, the circumstances seem to be completely different. On average, the share of compensation to employees in the finance industry makes up for at best 80 per cent of its relative impact on aggregate gross value added. In 2014 the income of an employee in the banking sector did not even reach two-thirds of his direct productivity. The ratio's trend since the middle of the last decade corresponds to the growth in assets depicted in figure 5.6.

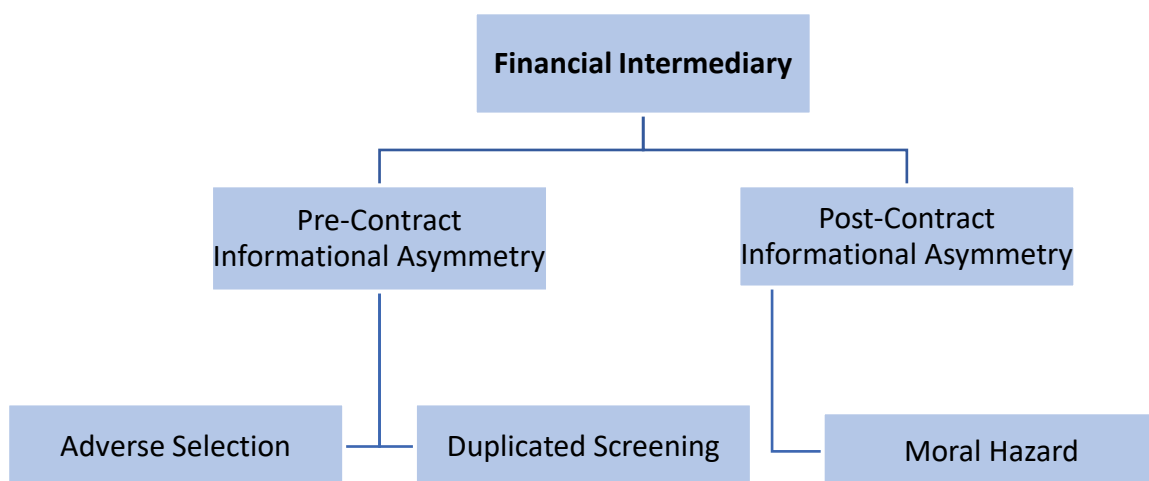


## 6. Furthering SMEs via local banks – some starting points

Small and medium-sized enterprises face some idiosyncratic challenges. One particular characteristic is the limited number of personnel. The governance of SMEs is very often concentrated on a few persons with frequently only one person being in charge. The latter, acting as a kind of chief operating officer (CEO), might also be the founder and (single) owner of the firm. Hence, (s)he is not only responsible for organizing production and merchandizing procedures but also for ensuring the enterprises's financial stability. As sound knowledge in methods of corporate finance cannot always be expected, additional experience and specialized knowledge is typically necessary and helpful.

In such settings, financial intermediaries have a valuable role to play. We have already addressed above the informational problems that arise in finance contracting (see also figure 6.1). In general, financial intermediaries are specialized in dealing with these situations and can, therefore, act as a facilitator between providers and users of financial capital (Greenbaum & Thakor, 2007). Additionally, banks, as a special type of financial intermediaries, offer inside debt which is the preferred type of financial resource for SMEs. Fama (1985) defines inside debt as “a contract where the debtholder gets access to information from an organization's decision process not otherwise publicly available.” Furthermore, a typical bank loan is a payoff contract easy to calculate for the firm's owner. Although even a debtholder might have access to decision making boards of an enterprise, the information generated during the partnership between a firm and its bank remains private and can be obtained at reasonable costs.

**Figure 6.1: Information Problems addressed by Financial Intermediaries**



Source: Greenbaum & Thakor (2007)



A long-term partnership between a SME and a bank benefits both actors, as a firm's periodically evaluated and proven ability to service its obligation is a useful signal of its quality as a borrower. Renewals of loan contracts will be observed by customers and suppliers of an enterprise, so they might be more willing to cooperate with the firm. These reputation effects can also help to enhance the market position free of additional charges (Diamond, 1989).

While favouring inside debt seems to be a reasonable approach for a SME, finding a potential lender might be anything but straightforward. At least, two different market situations might exist: Firstly, a highly competitive banking industry in a geographical center, and, secondly, few and rather small financial institutions in rural areas. In the first case, a cooperation of the firm and a particular bank depends on the probability to select an appropriate lender. In the case of inside debt, soft facts are of crucial importance (Berger & Udell, 2002; Berger & Black, 2011).

SMEs face severe structural problems to present reliable information about their financial abilities additional to their annual accounts or sales. In contrast to large, globally operating firms no ratings or testified financial statements, so called hard facts, are available. Hence, for a typical bank an yet unknown SME applying for a business loan causes initial cost which might turn out to become sunk. In competitive markets, bank margins are rather small, so the financial institutions seek to avoid such unproductive expenses and might be reluctant in SME lending.

In the second case of more remote regions, the bank density very often is low. Additionally, bank managers are experienced concerning their location's general economic conditions and the specific needs of their customers. Local financial institutions are in close touch with their social environment and familiar with cyclical changes of the commercial sector. Loans to SMEs represent a major share of business for local banks, and bank managers are likely to be acquainted with their borrowers' relevant soft facts. Due to less intensive competition, margins are attractive especially with their regular clientele.

The two different constellations sketched above can be characterized by two factors: information costs and transaction costs. For SME-loans, in urban areas transaction costs are relatively low and information costs comparatively high, the opposite holds in rural areas. For a bank's lending decisions, information costs are of far greater importance than transaction costs, however, a small and medium-sized enterprise favours financial intermediaries close to its own site.

Standard theory of spatial competition identifies conditions for an optimal choice of location (Hotelling, 1929). The fundamental approach analyses the coexistence of two suppliers (banks) of an homogenous good (loan) in a local market with potential customers residing in different distances. Transaction costs apply depending on the specific distance between a customer and the respective supplier. Customers minimize their transactions costs and the duopolistic competition model delivers an equilibrium solution with equal shares of customers for each of the two suppliers if their locations are appropriately chosen. One of the important conclusions is the relationship between market size and number of competitors. With rising (fixed) costs or shrinking population, a single supplier, a regional monopoly, might be the only sustainable constellation.

This initial idea can be applied to a broader setting (Salop, 1979; VanHoose, 2017). A market with more than two banks and given, but limited size and population can be split into identical portions



by an optimal pattern of banks' locational choices. Necessary and sufficient conditions can be derived for equilibrium prices (loan rates) as well as possible margins and costs advantages. Additionally, the model shows how market entry (market exit) might be restricted (induced) by extensive regulatory burden. In practice, market exits are very often "disguised" as mergers, resulting in a higher level of concentration and an increase of the average spatial size of a single bank's market share. Note that simultaneously the distance between a SME and its lender increases, too, causing rising transaction cost for the borrower.

Empirical findings fit fairly well with these theoretical conclusions. SMEs depend most obviously on resilient relationships with their banks which, in turn, are sufficiently familiar with the idiosyncratic characteristics and needs of these clients. Berger & Udell (2002) emphasize that smaller banks even in remote areas have a comparative advantage in this segment of financial markets. Following De Young (2008), two groups of banks are the main contenders:

- smaller banks with low volumes, high value-added and personal services
- larger banks with high volumes of standardized, low-cost services.

VanHoose (2017) reviews in great detail empirical studies on determinants and effects of bank-customer relationships. He points out that primarily small and medium sized enterprises strongly rely on "house banks" in the form of regionally operating, likewise comparatively small entities. They seem to form a specific kind of economic symbiosis between particular clusters of borrowers and lenders.

Not only in the EU, but also worldwide, most local banks belong to either the group of savings institutions or to the class of cooperative banks. Although the national legal frameworks differ significantly both groups established European and global associations to pool and represent both, their ideas and their interests in politics and public discussions.

Cooperative banks, or co-operatives, are retail and commercial banks organized on a cooperative basis, that is they are owned by their members which are simultaneously also their customers. Most of them operate as universal banks, e.g. accepting deposits from private households or firms and making loans to mostly small and medium-sized enterprises or mortgages to private and commercial clients. By their own perception (European Association of Co-operative Banks, 2019), co-operatives' unique features are

- member ownership,
- 'one person – one vote' democratic governance, with a bottom-up approach,
- maximisation of members' benefit/surplus in a longterm relationship,
- strong commitment to social values,
- close connection with their customers,
- resilience.

Cooperative banks are privately owned but do not follow the basic economic principle of profit maximisation in the first place. Originally, they were strong pillars in their regional and social communities as a kind of partnership of convenience. Co-operatives manage a more or less limited and accessible region ("local market") and offer all basic financial services.



As a lobby group, cooperative banks trust in approved market practices, in differentiated banking structures and in the importance of bank financing for the credit flow to the real economy. Reflecting the specific capital structures of cooperative banking groups and networks is also fundamental to preserve workable competition in national as well as in cross-border markets.

When dealing with different legal forms and organisational structures, co-operatives explicitly opt for regulative measures to ensure that resolution requirements do not penalise the co-operative business model, its legal form or organizational setup. In their opinion, the diversity of banking business models contributes to financial stability through better risk diversification and allowing more freedom of choice for consumers. The design of harmonized corporate governance rules should not endanger such diversity (European Association of Co-operative Banks, 2019).

The (European) savings bank sector is more difficult to characterize properly. In contrast to co-operatives, no encompassing governance principle can be identified. Even the (formal) definition of a savings bank is somewhat deceptive. In the early beginnings, savings banks were originated to provide access to savings products to all groups of society. Nowadays, so-called savings bank are more than financial institutions whose primary purpose is to accept savings deposits and to pay interest on those deposits

They are regionally operating retail banks, in some cases operating with additional public objectives. In Germany, for example, local savings banks (“Sparkassen”) follow a public mission (common weal) and are provided with a very particular corporate governance (Gischer, Reichling & Stiele, 2007). Hence, the international associations incorporate a mixture of retail banks following common values (European Savings and Retail Banking Group, 2019) summarized as “retail, regional, and responsible”.

Savings and retail banks self-characterise as responsibly managed institutions that are retail focused and regionally present. “Serving as a financial catalyst within local economies – small towns, big cities and everywhere in between – the savings and retail banks, no matter what size or shape, nourish the real economy made up of households and small and medium-sized businesses.” (European Savings and Retail Banking Group, 2019)

Locally focused savings and retail banks – whether small, medium or large – aim to serve their customers to help spur growth at the regional level through a vast network of banks throughout the European Union. Harnessing digital means provide a further boost to extend and deepen their contact with people, democratising finance to give them greater access to banking. Savings and retail banks invest in the communities they serve, whether it is through core banking services or through its pioneering foundation work.

SMEs, as prominent clients of savings or retail banks and co-operatives, face several demanding challenges, some ad hoc, and short notice, some more structural and long-term in character. Currently, the most pressing and difficult tasks are related to the Covid-19 pandemic. SMEs are hit more strongly by the Covid-19 crisis than large and internationally operating firms because they are less able to diversify and tend to receive less public support in particular when located in rural areas with a weaker digital and logistic infrastructure.





With the imminent Covid-19 pandemic, substantive differences between larger and smaller banks became evident. On the one hand, regional banks appear to be quite resilient to the economic downturn due to their ample capitalization. They proved to be very helpful in implementing state aid measures and channeling funds to SMEs in need. On the other hand, the pandemic driven recession also revealed systemic shortcomings of regionally operating banks. Due to their limited regional operating field, they are very constrained in diversifying their lending portfolios and might be forced to accept considerable cluster risks. Severe threats to a bank's resilience might arise, and prominent tasks to regulators.

From a longer-term perspective, the imminent climate change provides both opportunities and challenges for Europe's SMEs. The EU's recently introduced Green Deal calls for innovative ideas in production technologies and new business models. The new approaches to carbon-free energy, mobility and energy efficiency have in common that they are implemented in a decentralized and local way, so that SMEs are natural leaders to monitor and benefit from this transformation process. Although SMEs have launched a variety of new techniques and products in the past, these new tasks require additional funds and innovative financial instruments to provide for further investments and to cover rising costs.

Green Deal programs are also a policy field in which local banks play a significant role. Again, their detailed knowledge of regional conditions is vital for an appropriate allocation of funds and government aid. The on-site bank staff is well-positioned to monitor eco-friendly investments as well as ecological business models. These regionally operating financial intermediaries can help to invest limited funds more productively by reducing information and transaction costs.



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