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Resilience in Focus. Certain Mechanisms of the Deepening of the Economic and Monetary Union

SUMMARY: The economic resilience – the flexibility of the economy and also the capability of resistance to shocks – is a central category of European reform processes. It contains proactive and reactive dimension, as well as the necessity of adaptation to the new circumstances. The study examines the basic dimensions of resilience: vulnerability factors, shock absorption and the ability to recover, and finds that the efficiency of the interactions and synergy of the deep integration system is determined by the interconnected mechanisms of convergence and resilience. Approaching resilience may show a new direction to national economic policies. With the increase of resilience of certain member states, the structural reforms at national level could decrease (reduce) the expense of the anti-cyclical (national fiscal or common monetary) policies in stabilizing of the Eurozone's economies.

KEYWORDS: Economic and Monetary Union, resilience, shock-absorption capacity, ability to recover, structural reforms

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The economic resilience – the flexibility of the economy and also the capability of resistance to shocks – is a central category of the European reform processes. The efficiency of the interactions and synergies of the deepintegration system is determined by the interconnected mechanisms of convergence and resilience (Halmai, 2020). The resilience approach could provide a new direction for the national economic policies as well.

In this paper we review the three basic

dimensions of resilience – i.e. vulnerability, shock absorption capacity and the ability to recover – with respect to the Member States of the euro area. The former are fundamentally affected by the deepening of the European integration. Based on the above, important conclusions are to be drawn regarding the directions of Member State structural reforms as well.

ECONOMIC RESILIENCE

Economic resilience¹ is the flexibility of the economy and also the capability of resistance to

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shocks. The ability of a country or integration to avoid shocks, shock resistance and the ability to recover to the potential output after the recession. [See for example, Canton et al. (2016); Giudice, Hanson (2018); Jolles, Meyermans, Kostolemis (2018)]

The resilience approach was brought to the forefront after the 2008-2009 great financial and economic crisis. The ability to overcome economic shocks is of exceptional importance both during the Covid-19 pandemic, and in the post-Covid period. Resilience is relevant not only in a static dimension (as maintaining the functions of a system during a crisis), but it also contains an adaptive dimension, i.e. the necessity to adapt to new circumstances.

For the OECD and the EU, resilience is a fundamental approach in the context of economics studies. In 2015, the Five Presidents' Report stated the following about the future of the euro area: the Member States should converge '*towards more resilient economic structures*' (Juncker et al., 2015, page 9). The German Federal Government compiled a list of priorities for the G20 summit in Hamburg, which put the establishment of resilience on top of the list (Bundesregierung, 2017).²

The political and economic environment of Europe has been characterised by particularly sudden changes in the last decade. The fundamental question is whether we have the capacity necessary for managing and tackling shocks. The time has come to introduce the resilience approach into the policy debates (Martin, Sunley 2004, page 2). Conceptual clarification is a significant requirement. The resilience approach can provide additional perspectives. It can have a normative role in determining the economic policy strategies. It should be underlined that:

- resilience is essential not only in the static dimension (as maintaining the functions of a system during crisis), but it contains an adaptive dimension as well,

i.e. the necessity to adapt to the new circumstances;

- the interaction between the macroeconomic and microeconomic levels (the behaviour of enterprises and employees) requires attention, as well as the interaction with economic policy decision-making;
- it should be clarified which dimensions require management in order to enhance the economic resilience based on a consistent and comprehensive strategy.

The capacity suitable to achieve a potentially new condition, which is however not less satisfying than the previous one, is important for adaptive resilience.

According to the definition used by the ECB: '*Resilience is here understood as the capacity to minimise output losses after an adverse shock has hit the economy.*' (Sondermann, 2016). This approach puts the growth and employment requirements in the focus. At the same time, the dynamic, adaptive dimension is disregarded.

According to the OECD definition, '*Economic resilience can be defined as the capacity of an economy to reduce vulnerabilities, to resist to shocks and to recover quickly. It can be strengthened by exploring the role of policies that mitigate both the risks and consequences of severe crises.*' (Caldera Sánchez et al., 2016, page 6).³

The adaptive dimension is true especially for the economic systems: such systems are constantly forced to change as a result of the dynamics of the innovations and growth factors. In respect of the technical or ecological systems it could still be reasonable to put the primary emphasis on returning to the old, normal status. However, this does not apply to the economic system. In the case of the latter, at best returning to the pre-crisis development and growth path could be considered as a point of reference.

There are a large number of actors in the macroeconomic system, operating in a network

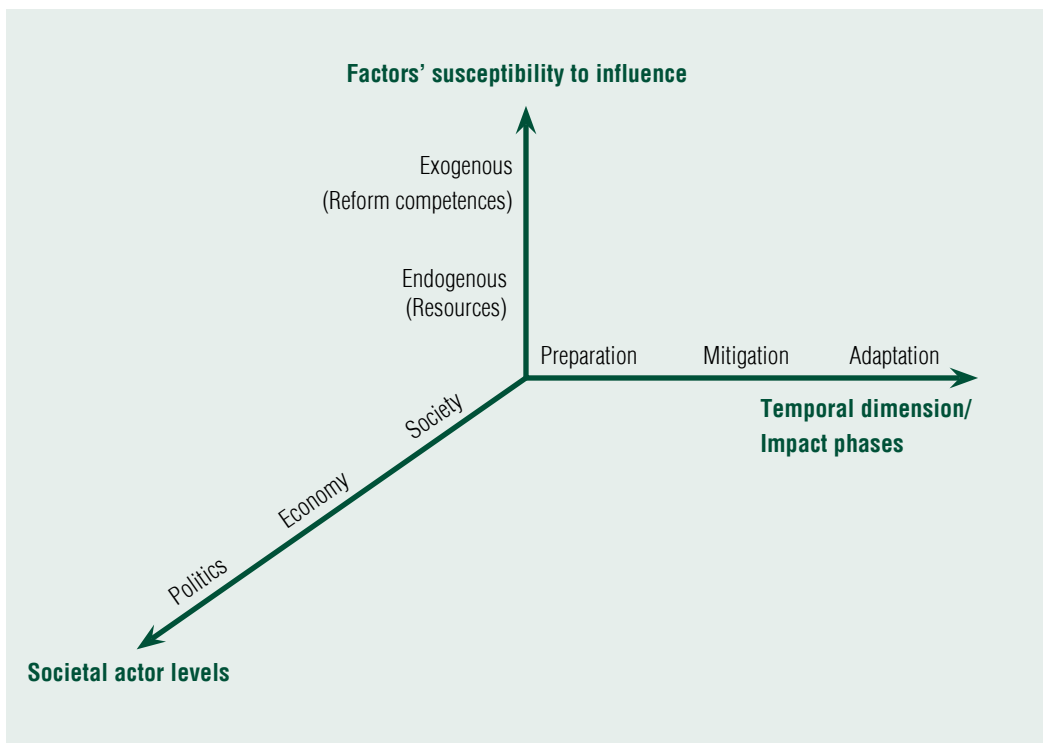
of complicated interactions. Individual (business, consumer, elector, etc.) decisions and mutual social dependencies are important. According to economic science interpretation, resilience expresses the ability of an economy to prevent crises, absorb shocks and adapt to the changing circumstances. The degree of resilience is indicated by the extent to which the mechanisms, actions and interactions of the political, economic and social spheres are able to preserve the output of the economy. The proactive and adapting dimensions of resilience are important. (The dimensions of the comprehensive resilience strategy are summarised in *Figure 1*.) Economic resilience is determined to a significant extent by the interactions of the different levels.

A distinction is made between ‘exogenous’ and ‘endogenous’ types of crisis-management capabilities (Rose 2016). The former describe existing resources available in the short term. The latter, closely related to the adaptive dimension of resilience, take into account the economy’s reform capacities as well. The ‘endogenous’ factors include flexible actors and institutions, as well as the high level of social capital (mutual trust, networking, etc.).

The comprehensive resilience strategy positively influences the performance of the economy and the society both during and after a crisis. Avoiding the constant decline in performance is a fundamental need. The consequences of the shock require continuous neutralisation. Meanwhile, in an optimal

Figure 1

DIMENSIONS OF THE RESILIENCE STRATEGY



Source: Brinkmann et al. (2017)

case, the crisis can create opportunity for profound reform and higher macroeconomic performance. (See *Figure 2* for the different trends.)

The resilience approach could provide a new navigation tool for the economic policy [See for example Halmai (2019); Pulay, Simon (2019)]. Its scale could be established by the extent of partial social functions (growth, distribution, etc.). With resilience coming to the forefront, the need for inclusive growth has also gained increased attention. The latter makes the achievements of economic dynamism accessible to large groups of the population. The consequences of a crisis potentially affect the weakest groups of society most strongly. These groups have little

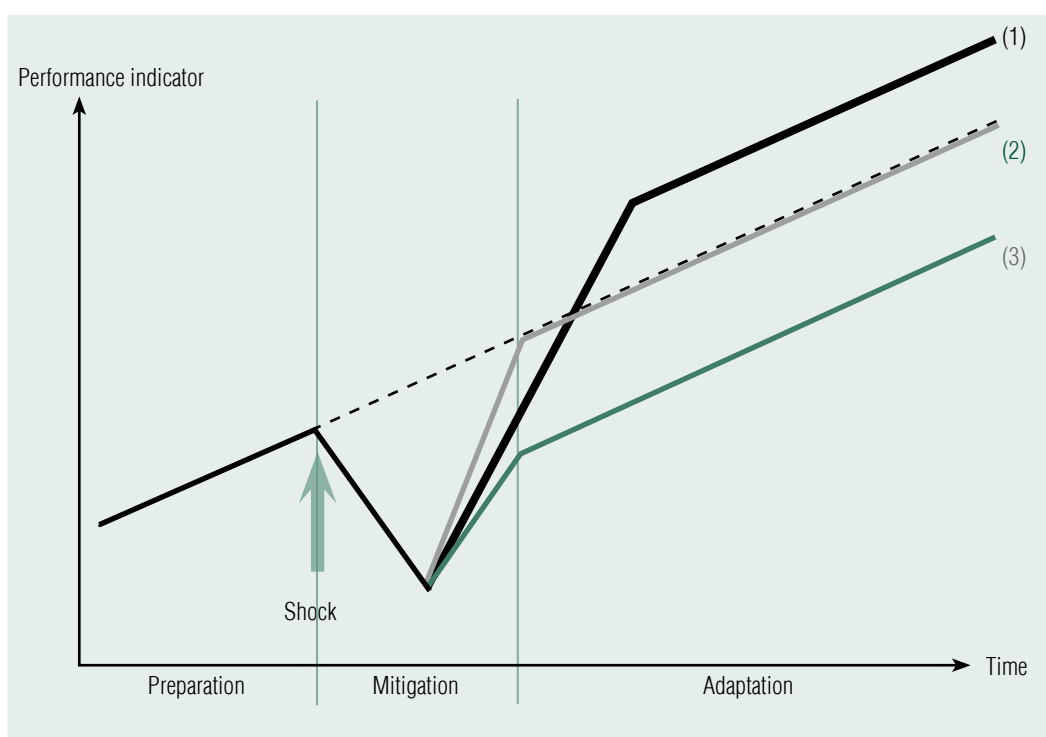
opportunity to fend off income fluctuations. In addition, economic crises are often accompanied with a decrease in government capacity for social redistribution. It is a fundamental economic policy requirement that the main objectives of inclusive economic growth should be enforced during the period of crisis management as well.

RESILIENCE AND EUROPEAN INTEGRATION

Resilience is a fundamentally important characteristic of deepintegration. The efficiency of the interactions and synergies of the deepintegration system is determined by the

Figure 2

PERFORMANCE UNDER CRISIS CONDITIONS



Source: Brinkmann et al. (2017)

interconnected mechanisms of convergence and resilience (Halmai, 2020). The low level or lack of resilience in a Member State could have significant and permanent effect on other Member States and the entire system of integration through several channels. The Member States could be exposed to collective shocks beyond their control. As a primary requirement, the reforms should strengthen their convergence towards resilient economic structures. The three main elements of convergence towards resilient economic structures include decreasing vulnerability to economic shocks, increasing shock absorption capacity and the ability to recover from shocks more rapidly. These characteristics are required for the uninterrupted smooth functioning of the European economy and the monetary union in general. In a currency union the foreign exchanges rates cannot be used to mitigate macroeconomic shocks. The capacity of the individual national economies to treat shocks quickly and efficiently is of crucial importance in order to prevent unsustainable differences emerging among the members of the union.

Economic resilience relies on unique, country-specific characteristics. On the EU level the single market and the efficient macroeconomic stabilisation policies (system of deep integration) could promote resilience and the strengthening of the growth potential. Stronger competition, stronger cross-border trade and investment, easier access to a wider scope of suppliers and consumers, more innovation and faster technical development could be possible.

The convergence of the Members States towards resilient economy is a key issue for the functioning of the Economic and Monetary Union (EMU). The low level or lack of resilience in one or more Member States could have significant and permanent effect not only on the parties concerned but

on other Member States and the entire euro area through multiple channels.

Accordingly, the three basic dimensions of resilience:

- vulnerability,
- shock absorption capacity and
- the ability to recover

will be reviewed with a focus on the euro area Member States.

VULNERABILITY TO SHOCKS

Vulnerability refers to whether the shock shakes the economy, and if yes, then to what extent. Exposure to shocks and their frequency and intensity are crucial. All these depend on a number of factors: the structure of the economy, various political factors, the financial sector and the asset markets, as well as the situation of the non-financial sector. Certain countries are more exposed to specific shocks than others.

Vulnerability refers to the frequency and intensity with which the shock affects an economy.⁴ Shocks can take various shapes and forms. Shocks can be symmetrical or asymmetrical, temporary or permanent (see Cochrane, 1994). The efficiency of the structure forming the foundation of the economy, and the efficiency of the markets and the institutions have significant effect: whether a shock affects the economy, and how strongly it is affected, as well as how long the adaptation takes.

In this regard the well-integrated product markets have the advantage that the producers can make their sales markets more diversified among the countries. A diversified market is less vulnerable to demand shocks. The effects of negative shocks can be mitigated if the economic actors are able to access intermediate inputs from diversified sources free from technical or regulatory obstacles. With the

help of this opportunity the economic actors will become less vulnerable to potential shocks affecting the specific procurement markets. The latter consideration is behind, for example, the need to connect the energy networks of the EU energy union.

At the same time, the increasing openness of international trade could increase the economy's vulnerability to external shocks. In particular, if such shocks are accompanied with strong specific production concentration. The effect of economic integration on product specialisation and export composition is important in this regard as well. An important question: is it the trade among sectors or the trade within sectors that is increasing?

In case of specialisation among the sectors, the Member States are more vulnerable to asymmetrical shocks. In case of specialisation within the sectors, the Member States are likely to experience collective shocks. Economic theory does not provide a clear answer as to how the production models develop in the single market in case of a single currency. On the one hand, along with the deepening, the Member States could carry out stronger specialisation in the activities with comparative advantages. This would result in less diversification on the supply side (Krugman, Venables 1996). On the other hand, if specialisation occurs within the sectors and not among the different sectors (as a result of product differentiation realised among the same types of products or due to imperfect competition), then the production structures become more similar among the Member States and therefore the shocks become more symmetrical. However, the evidence available is not always clear about this issue.

According to the data, in most euro area Member States the sectoral composition of the exported products converged to the euro area average between 2002 and 2016 (see Figure 3). This wide similarity in the sectoral export

structure is expected to decrease the risk of external sectoral shocks becoming country-specific shocks.

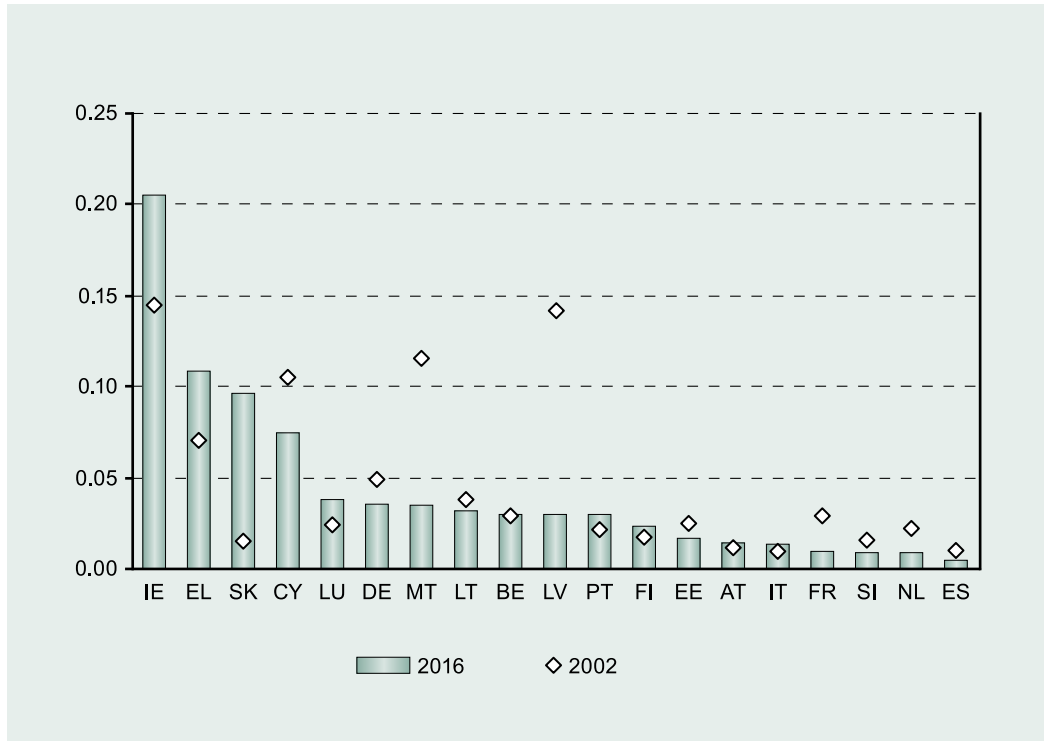
The process of structural development, therefore the stronger integration into value chains in the euro area and the digital programmes⁵ could contribute to an increase in potential output in the euro area economies (OECD, 2015). At the same time, they also affect the economic resilience. They could increase vulnerability through cross-border spill-over effects (e.g. due to stronger integration to the global value chains). Pricing, however, could become more flexible (e.g. due to the increased online competition). The increased flexibility of pricing could strengthen the capacity of the economy to react to shocks. The net effect of these structural developments is changing.

The value chains have strong internal, euro area relations (see e.g. Amador, Coppariello, Stehrer, 2015). According to estimates, the export rate of the foreign added value originated in the EU was much more stable than in the case of added value originating from other blocks. Germany had the largest role in the internal euro area relations: it represented 28.8 percent of the added value sold and 23 percent of the added value used.

The strong internal euro area relations reduce the Member States' vulnerability to shocks which occur within their domestic markets or outside the euro area. At the same time, the Member States become more vulnerable to shocks occurring in other euro area Member States. All these depend on their value chain structures and their own position within it. (The weakest link, which assembles the parts and units imported from other Member States, and the strongest link where the senior management and the assembly takes place could cause difference in the value chain in terms of vulnerability.) According to *Frohms, Gunnella* (2017) the transmission of unique

Figure 3

SECTORAL EXPORT COMPOSITION, GOODS (COMPARED WITH EURO AREA AVERAGE)



Note: indicator based on difference between a Member State's and euro area's industry share in total exports. The indicator shows the squared differences of these product shares: the lower the value, the closer the national export composition to the euro area's industrial export composition. Products are classified along the United Nation's Standard International Trade Classification (SITC).

Source: Jolles, Meyermans, Kostolemis (2018) page 16

(idiosyncratic) shocks depends strongly on the existence of global network centres which sell to other value chain partners or buy inputs from such partners. In such cases, shocks to the global centre adversely affect those partners who do not possess the means to avoid the shocks afflicting the centre.

Participation in the value chains can make the national labour markets relatively sensitive to the labour market conditions of the partners. This sensitivity could lead to increased vulnerability and defensive reactions. For example, local employers (price takers in the market) prefer hiring their employees with temporary contracts. The latter provides them

with better opportunity to adapt in the course of the possible restructuring of the global value chain (Lehndorff, Voss-Dahm, 2005).

Domestic inflation could also become more sensitive in respect of the partners' conditions in case of cross-border value chains. The production costs are easier to carry over the borders. Highly integrated and competitive markets can restrict this transmission, provided that the businesses turning downwards have the opportunity to replace the upwards production.

The rise of online trade (and therefore e-commerce) is another relevant trend of the current structural development. Online

trade is expected to increase the trade carried out within the euro area even further. The greater transparency of the market and the competition lead to bigger price flexibility, which reduces business cycle fluctuations.⁶

The Member States could face a number of internal and external shocks. They are often unable to influence such shocks directly. These various (temporary or permanent, supply, demand or political) shocks affect the Member States through various channels. The Member States can exercise influence through indirect confidence effects as well. A Member State's exposure to shocks could change according to the development of the political and economic structures. The various factors of vulnerability often affect one another and could accumulate. All these increase the likelihood that a collective shock will affect a more vulnerable Member State much stronger.

The great crisis highlighted the exposure to financial shocks in particular. A sudden change in the interest rates or changing asset prices may have strong economic effects. In the case of indebted Member States, the change in the market interest rates has a great impact. All these fundamentally affect the sustainability risks. The predominantly short-term credits and flexible interest rates are more exposed to short-term changes. The use of microprudential supervision and macroprudential tools could restrict financial vulnerability. These could reduce the risk of divergent (leading to asset price bubble and the incorrect allocation of resources)⁷ real interest rates. Due to the deductibility of the interest rate, debt distortion in corporate taxation and *tax breaks* in mortgage lending could contribute to the accumulation of debts in the corporate and household sectors. The improvement of the sustainability of public finances (including pension and healthcare financing) is greatly significant in mitigating the risks threatening the balance of the public sector.

SHOCK ABSORPTION CAPACITY

Shock absorption capacity refers to the ability of an economy to absorb the direct effects of shocks and to reduce the immediate output and employment losses. The effects of the shock can be absorbed by spreading them across the economy. In order to avoid serious output and employment setbacks, automatic stabilisers, flexible wages and prices, lending and financial risk-sharing, among others, could provide options to absorb the effects of the shock.

The single market and the further deepening of the EMU could influence the absorption capacity of the euro area Member States through various channels, such as diversification realised on the supply or the demand side, price flexibility, money and capital markets, the banking sector, and the labour market institutions. Their potential effects could point to different directions.

Diversification reduces the Member States' vulnerability to shocks. At the same time, the shock absorption capacity may increase in highly diversified economies. As a result, the sectoral shocks have smaller effect on the entirety of the economy. For this reason the shock puts lesser burden on the national fiscal stabilisers, and access to the financial market becomes less restricted. As a result of all these, the economy has a stronger shock absorption capacity.

The further integration of the product markets among the euro area Member States is expected to provide greater opportunity for export-driven recovery in the event a Member State is hit by an asymmetrical shock. It is particularly important for the smaller Member States of the euro area. If a shock hits every Member State, but the extent of their adaptation is different, then it is possible that the countries that are most severely affected are still able to export to the countries which are affected to a lesser degree.

The completely flexible prices are definitely and constantly adapting to the balance of demand and supply. In the absence of fully flexible prices a distinction should be made; *the 'stickiness' of the price* means that the prices adapt rarely, whereas the 'rigidity' of the price means the inability of the market price to adapt to the balance level completely (Dhyne et al., 2009). The further deepening of the single market, as a result of stronger competition and the consumers' search for lower price and better quality, is expected to affect the development of price flexibility among enterprises.⁸ The greater resilience created in this manner will strengthen the shock absorption ability of the economy.

Aggregate price flexibility and relative price flexibility cause macroeconomic effects through different channels.

With a new balanced state of the deeper single market accomplished, the macroeconomic stability of the monetary union is likely to improve as a result of the increased aggregate price flexibility, provided that the prices adapt to the changed economic conditions and effects more quickly. It will make way for a more efficient transmission of the common monetary policy.

Relative price flexibility is even more important than aggregate price flexibility, considering that it induces the reallocation of resources. The relative prices of products and services are influenced by the relative (marginal) production costs and mark ups.⁹ The deepening of the integration could affect both factors (Sauner-Leroy, 2003). The production costs and mark ups may decrease if the trading obstacles are removed and if the mobility of the production factors is reinforced. The greater freedom of production factors could promote the profits of allocation efficiency (as a result of which the marginal costs and the marginal gains get closer), production efficiency (as a result of which less input is

used for the same quantity or higher quality of output), as well as the profits of dynamic efficiency (which encourages innovation). At the same time, corporate-level price flexibility could be restricted by financial frictions. If the internal liquidity declines significantly due to a negative shock, then the businesses are less likely to reduce their prices in order to avoid costly external financing (Gilchrist et al., 2015).

Relative price flexibility, in the same way as the speed of recovery, has a dual role in supporting the shock absorption capacity. On the one hand, a more flexible relative price could help to absorb the output (and employment) losses in case of severe shocks hitting the sector, stimulating the demand for the product concerned by reducing the relative prices. (Without price flexibility, the decrease in demand is absorbed completely by quantitative adaptation, provided that it is not prohibited by the regulations.)

On the other hand, relative price flexibility is a fundamental condition of supporting the reallocation of resources among sectors. In the sectors which perform excessive (unsustainable) growth during economic upturns (for example the construction industry, and the sectors which produce goods not introduced into foreign markets), competition and relative price flexibility provide signals and incentives to enhance the reallocation of resources towards those sectors which have sustainable growth potential.¹⁰ In certain cases price flexibility could make cyclical swings even worse. In such cases other policies are necessary to avoid excessive lack of balance.

According to the evidence available, the prices are still not flexible enough in all the sectors of the euro area economies. For example, according to *Dhyne et al.* (2009), the prices of services adapt less frequently than the prices of manufacturing products. This can be attributed to less intensive competition, or the

role of wages in the cost structure. According to *Vermaulen et al. (2012)*, the producer price changes are noticeably smaller in the euro area compared to the United States. According to empirical examinations by *Jolles, Meyermans, Kostolemis (2018)*, during the period between 1995 and 2017, the dispersion of price flexibility against the changes of nominal unit labour cost appeared to be the weakest in the market sectors most affected by international competition (primarily in the processing industry). (Both before and after the great depression.)

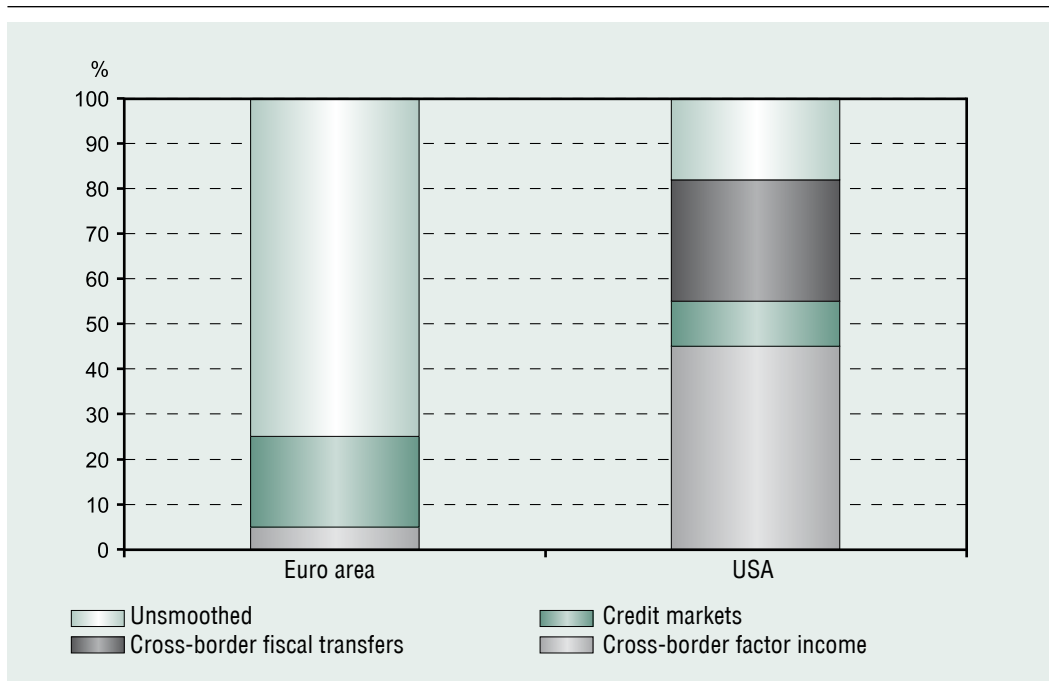
The uninterrupted adaptation of prices is important in promoting competitiveness. It helps the changes in labour costs to appear in the adaptation of consumer prices (ECB, 2016). Price flexibility is lower in the euro area than in the United States, particularly

in respect of regulation of prices (*Dhyne et al., 2009; Alvarez et al., 2005*). Fast price reactions are especially important in respect of reducing the inflation differences. Owing to their effects on real interest rates, they increase the impacts of shocks. The obstacles of cross-border activities, such as the differences or the complexity of taxation, may enhance the diversification of businesses among countries, thereby decreasing their exposure to the shocks of the specific economies.

The money markets are able to dampen the effects of shocks by smoothing out capital market risk-sharing, consumption and production through lending. According to *Figure 4*, shock absorption through equity holding among the countries and the credit markets is lower in the euro area than in the United States (EC, 2016). In *Figure 4*, the

Figure 4

RISK SHARING IN THE EURO AREA AND IN THE UNITED STATES



Source: Nikolov (2016)

‘unsmoothed’ part indicates the magnitude of the shock on consumption. In the euro area 1 percent GDP decrease leads to approx. 0.8 percent consumption decrease, while it is only 0.2 percent in the United States. The other bars in Figure 4 show the contribution of risk-sharing to shock absorption through credit markets (cross-border borrowing), fiscal transfers, capital markets and labour income. Capital markets and credit markets absorb less than 6 percent of the asymmetric shocks from the shocks hitting the euro area GDP. This situation is fundamentally different in the United States, where the capital markets are the main absorption channels.

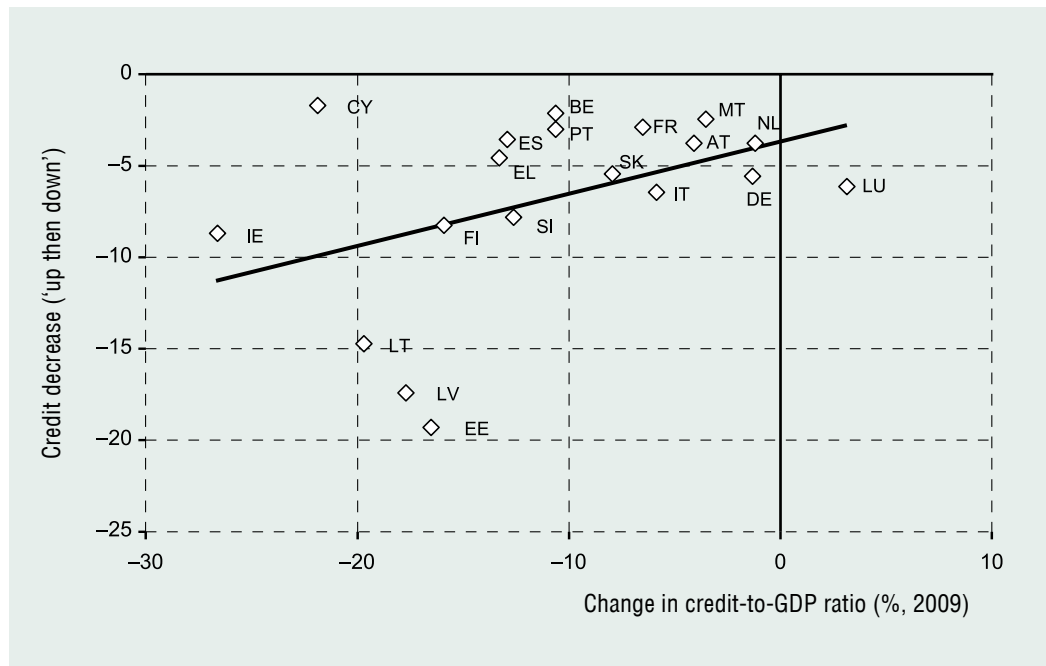
The weakness of the banking sector can lead

to pro-cyclical credit squeeze during downturn (see Figure 5). A healthy system which is able to absorb the common euro area shocks efficiently is an important factor of monetary policy transmission. By changing the regulations applicable to interest rates and liquidity, it could manage the shocks spreading across the euro area efficiently. Therefore, it is important to create an opportunity for establishing a well-capitalised banking sector. In addition to the banking sector, the wider use of share financing could also enhance flexibility.

The rate of cross-border stock ownership is relatively low in the euro area, however, it did not decrease during the crisis (Valiante, 2016). The measures aimed at creating the

Figure 5

PRO-CYCLICAL CREDIT SQUEEZE IN THE EURO AREA



Note: (1) Peak to trough decline defined as the percentage difference between the maximum level of real GDP in 2007 or 2008 and the level in 2009. (2) Credit-to-GDP is measured as non-consolidated private sector credit flow. (3) The decline in credit flows as a share of GDP was larger in countries with a larger fall in GDP during the crisis.

Source: AMECO, EUROSTAT data

capital market union are given priority. Such measures could contribute to viable enterprises maintaining their access to financing during the recession period and strengthening the absorption of shocks through cross-border ownership of financial instruments.

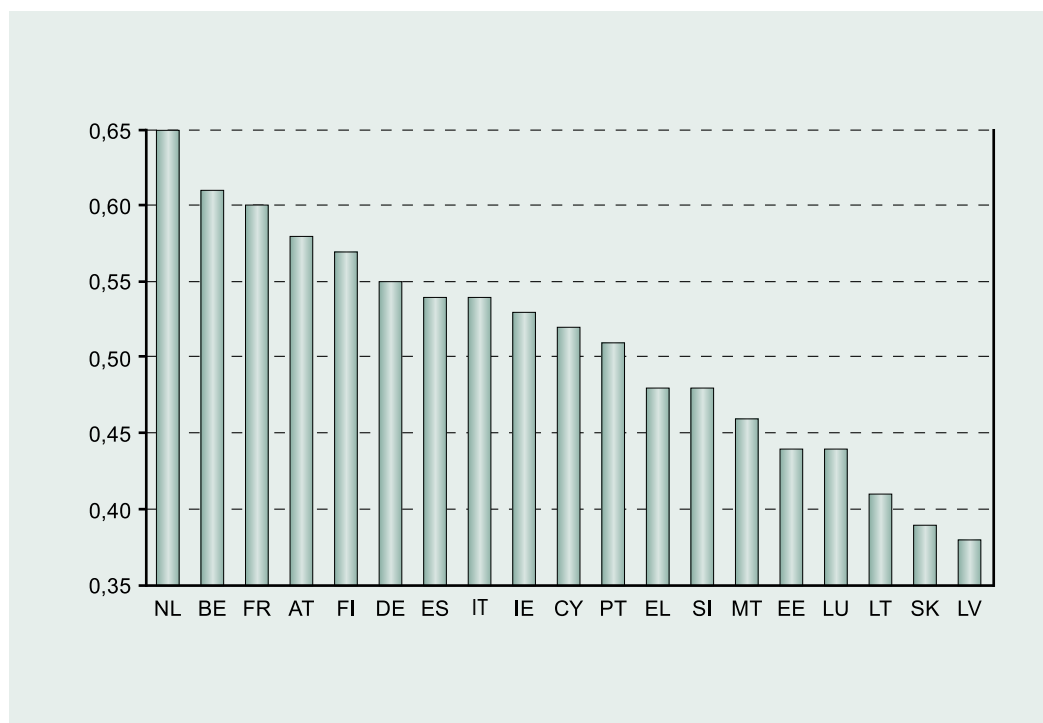
The well-functioning labour market institutions could mitigate the effects of employment shocks. They are important also in terms of competitiveness. Helplessness against shocks in respect of wages could cause a stronger increase in unemployment (Bakker, 2015). The flexible working time schemes and wage setting mechanisms should be highlighted among the instruments designed to dampen the effects of shocks, as they have the potential to mitigate the impacts on employment. (The flexible

working time schemes helped the adaptation and survival of businesses in the euro area. They made it possible for the enterprises to retain qualified workforce at the beginning of the great recession Ballaer et al., 2016.)

Finally, governments contribute to shock absorption through automatic stabilisers as well. In order to ensure the optimal functioning of the latter, budget expenditures must be sufficiently sensitive to the economic cycle. They should target those who are most affected by the shocks. According to *Figure 6*, budget flexibility is different in each Member State. The efficiency of the automatic stabilisers varies across the Member States too. The ones with lower budget flexibility could also stabilise their economies. These mechanisms

Figure 6

BUDGETARY BALANCE SEMI-FLEXIBILITY IN THE EURO AREA



Note: Elasticity of the budget balances varies across Member States, affecting automatic stabilisation.

Source: Mourre, Astarita, Princen (2014)

could be improved even further through efficient unemployment benefit systems which reduce income loss but support the demand at the same time, as well as through buffers to be filled up during upswings. Built-in buffers are required for the viable social security systems as well. With the help of buffers, unexpected shocks can be absorbed. A budget which includes inflexible expenditures provides more room for discretionary political actions in the course of shock absorption.

ABILITY TO RECOVER

Economic recovery after a shock requires the uninterrupted reallocation of production factors into activities with higher growth potential. The ability to recover has a significant impact on how permanent the effects of the shocks would be on the economy. The capacity to return swiftly to a former state is reflected by the temporary nature of the effects of shock, and the uninterrupted reallocation of the productive resources reflecting product and labour market flexibility.¹¹ The extent of the necessary adaptation or reallocation depends on the type of the shock. Permanent shocks require significant reallocation of resources. The faster this process, the stronger the recovery can be.

The single market and the EMU can influence this reallocation in different ways. On the one hand, the so-called framework conditions improve the allocation efficiency across borders. The specific characteristics of unique product markets (factor inputs, demand and market structure) also have direct influence on short-term reallocation.

The framework conditions which influence the reallocation of production factors can be divided into two groups: the factors affecting the entry, growth, decline and termination of businesses, and the factors which affect the business environment of corporate operation

(quality of infrastructure, purchasing rules, corruption, etc.).

The market entry conditions relating to new companies are significant. The length of the procedures necessary for launching a new business (number of days required) decreased significantly in numerous Member States between 2008 and 2016 (by 33 days in Spain, by 22.5 days in Lithuania, and by 13 days in Slovakia). At the same time, the number of days required for launching a business still varies across the Member States. (28 days in Malta, 22 days in Austria, 2.5 days in Portugal, 3.5 days in Estonia and Lithuania; WEF Competitiveness Database, 2017).

The improvement of the business environment made it much easier for the businesses to enter the market (EC, 2017). The single market reforms include, among others, the elimination of investment obstacles, improving the quality of public administration and the predictability of regulations, as well as the strengthening of deeper and better integrated capital markets. At the same time, there are significant persistent differences in the quality of business regulation and public administration (Canton, Petrucci 2017).

The efficient and effective functioning of the insolvency frameworks, as well as the opportunity to restart business (the so-called second chance) are important for undertakings in order to restructure the resources. The efficient insolvency frameworks could especially promote recovery after shocks. Startups can boom, for example, when the capital goods (e.g. real estates) can be acquired from bankrupt companies at low prices (especially during downward trends). The new undertakings could increase the demand for services and intermediary products. The latter could support new startups.

Significant differences are noticeable in the length of time necessary to resolve insolvency, from half a year in Ireland to four years in

Slovakia. Unsuccessful entrepreneurs show strong preference for further business activities. At the same time, it is often restricted by the complexity of the regulation framework. All these require an integrated approach with respect to improving the regulatory system, strengthening entrepreneurial skills through lifelong learning, as well as system-level recognition of good and bad faith entrepreneurs. Access to financing is an important condition of this second chance (See Expert Group, 2015; EC, 2016).

The regulatory quality which facilitates the widespread and efficient reallocation of production factors assumes a well-functioning legal system, efficient public administration, low level of corruption (including public procurement), high-quality infrastructure and efficient intellectual property system (See Sondermann, 2016).

The reforms of the areas specified above require complexity and further money market integration. Well-functioning money markets are particularly important with respect to the reallocation and rearrangement of resources (for example, the financing of new enterprises with strong innovation potential and small and medium enterprises). Meanwhile, financial frictions could hinder reallocation, especially in the case of small enterprises. All these could underline the need for developing a banking and capital market union and reducing the rate of non-performing loans even further.

The well-functioning labour markets and the social and care systems together with active labour market policies could contribute to ensuring a highly qualified workforce necessary for smooth adaptation. Avoiding competition in working conditions is an important requirement. Social dumping would jeopardise fair competition and the efficient allocation of resources.

Sector-specific conditions could also contribute to the possible reallocation of

resources, thereby influencing the decisions of enterprises to enter the specific sectors. In each sector the economic effects of the reallocation obstacles depend on the size of the sector and the multiplication potentials. For network industries the deepening could result in a potential to facilitate strong economic recovery after the shock. (Given the estimated, relatively strong multiplier effect.¹²)

The monitoring of sector-specific regulations¹³ could help to identify those sector-specific factors that influence the market structure and corporate behaviour. According to a review relying on the former, some sectors (such as telecommunication and aviation) are open to competition as a result of the far-reaching liberalisation achieved mostly in the EU. At the same time, openness and competition should be strengthened in other sectors (e.g. professional services) (Pelkmans, 2016).

The product market institutions strengthening competition and providing a business-friendly environment allow new operators to enter quickly, and the inefficient enterprises to exit. These institutions are particularly important in strengthening reallocation during the recovery process. Product market regulations and inflexible economic institutions could reduce the flexibility to shocks (Pelkmans et al., 2008; Canova et al., 2012; Sondermann, 2016). The Member States with less restrictive product market regulations and good business climate usually experience stronger recovery (Ciuluc, Kyobe (2017). Market entry and lack of competition protect the profit margin during economic upswing. Thus it can promote lack of balance and prevent the reallocation of more productive sectors (Praet, 2014). A number of measures are designed to facilitate entry and the expansion of new enterprises. It is important to strengthen the quality of public administration and to limit sectoral

regulation (e.g. in retail and professional services). The effective legal system supports business dynamics, promoting the fulfilment of contracts and the establishment of efficient insolvency systems. The latter allow for the dissolution of non-viable enterprises and the quick rearrangement of resources.

Labour market adaptation is also essential to help workforce transition to new opportunities smoothly. Member States with overprotected labour markets may experience a slower recovery in the employment levels (ECB, 2015). Restrictive employee protection rules increase the redundancy costs and may prevent the more efficient enterprises from hiring new employees. This could lead to labour market dualism with multiple negative consequences, including encouraging enterprises to accumulate human capital. Flexible employee protection rules make it easier to terminate employment in the event of poor prospects and generally provide higher-quality contracts in upturns. This can be complemented with an adequate social safety net and active labour market policies to make use of the new opportunities appearing in respect of more productive activities. Labour mobility is a relevant and increasingly important channel for adaptation in the EMU (Arpaia, Kiss, Pálvölgyi, Turrini 2016). The mobility of social security benefits can facilitate labour mobility. Education and further training also play an important role in the reallocation of labour.

Money markets can play a significant role in supporting recovery. They can provide access to financing for the most productive and financially viable enterprises in the course of the reallocation process. High level government debt and private debt constitute not only vulnerability, but are usually accompanied with a slower pace of recovery. The quick resolution of non-performing loans can free up resources for productive purposes. The

diversified financial environment, including developed bond markets and venture capital investors, supports the financing and growth of dynamic businesses.

In order to promote economic recovery, the loss of productive capacity should be avoided in the event of a downturn. Growth-friendly public spending including public investment and active labour market policies should be preserved during the cycle. Reviewing and revising the expenditures could facilitate efficient allocation and growth-friendly budgetary decisions.

Based on empirical analysis there are significant differences in the absorption and recovery capacities of the euro area Member States. The performances provided in respect of these two capacities are not necessarily and completely in sync with each other. For example, according to panel data regression results, in the event of a common shock strong trade openness weakens the absorption capacity, since the common shock adversely affects the export markets. At the same time, stronger openness to international trade could induce faster recovery (Jolles et al., 2018)).

With regard to international trade, it is particularly important for the more open economies to continue and deepen policies and reforms which strengthen the absorption capacity. Prudent fiscal policies, improved automatic fiscal stabilisers, and a well-functioning banking union and capital market union that enhances risk-sharing should all be highlighted.

DEEPENING, RESILIENCE AND STRUCTURAL REFORMS (SOME CONCLUSIONS)

The interpretation of economic resilience according to three dimensions (vulnerability, absorption, recovery) could help identify the

impacting factors and the potential supportive policy areas.

The further deepening of the integration in respect of product and service markets through diversified export markets and intermediate resources could reduce the Member States' vulnerability to shocks. The deepening economic integration strengthens relative price flexibility. It could moderate the fluctuation of the business cycle in output and employment. Therefore, the shock absorption capacity of the Member States could increase.

The shocks require the reallocation of resources from areas with unsustainable growth to areas with more sustainable growth potential. As a result of the faster reallocation of resources, further deepening is also expected to strengthen the ability of the economy to recover quickly after the shock.

The deepening of the internal market of products and services should be necessarily followed by other partial markets (capital and labour markets) as well. The full establishment of the banking union and significant progress in the capital market union are especially important. The further reinforcement of the labour market and social policy in accordance with the principles of flexicurity (flexible security) is also essential. At the same time, it can promote the social acceptability of change.

Preventive policies reducing exposure to shocks are necessary in order to minimise vulnerability. Facilitating such policies is a key objective for the Macroeconomic Imbalance Procedure (MIP) and the preventive branch of fiscal regulation. Improving absorption requires an immediate response that minimises the impacts of shocks (through government, and the financial and non-financial sectors). The automatic stabilisers and smoothing out with the help of consumption savings and borrowing should be underlined. The policies to promote adaptation or reallocation processes in the event of more permanent

shocks are also important. However, the latter processes are closely connected to the institutional structures of the Member States concerned.

Table 1 reviews economic resilience according to its three main dimensions, together with the influencing money, product and labour market conditions, as well as conditions within the public sector¹⁴.

There are significant differences in resilience among the euro area Member States. The 'one size fits all' approach cannot be applied. The development of country-specific policy solutions and the sharing of best practices on a broad scale would be possible.

The most recent financial and economic crisis clearly showed the vulnerability of the euro area. The Member States' lack of capacity for shock absorption and adaptation became obvious. The extent of decline depended mainly on these capacities, as well as the balance of payments and the problems related to the real estate bubble. After this serious, complex shock a large and permanent decrease in output took place. Addressing the emerging imbalances typically increased the government debts. This process had spill-over effects in the Member States through the feedback loop between banks and sovereigns. All these threatened the stability of the entire euro area. *Divergence* emerged among the Member States in respect of several dimensions.

The financial and economic crisis, just like Covid-19, highlighted the importance of strengthening the economic resilience of the EMU. Resilient economic structures could prevent economic shocks from having a significant and permanent impact on the income and employment levels, thereby reducing economic fluctuations.

These are particularly important in a monetary union where there are limited economic policy instruments available capable of addressing the effects of significant

Table 1

TAXONOMY OF FACTORS AFFECTING RESILIENCE

	Vulnerability	Absorption	Recovery
Financial sector	Leverage and risk taking	Properly functioning monetary policy transmission mechanism	A procedure for efficient resolution of viable banks.
	Household debt, including mortgages	A healthy banking sector, allowing for income smoothing by households and firms.	A procedure for swift resolution of non-performing loans (NPLs)
	Corporate debt Tackling bank-sovereign loops	Deep capital markets, allowing for funding diversification and equity risk-sharing.	
Product market / business environment	Diversification of the economy	Price flexibility	Business regulations
		Properly functioning internal market where firms can diversify risks (e.g. by increasing exports when domestic demand weakens)	Competition – internal market Insolvency procedures Judiciary
Labour market		Responsive wages	Well-functioning (contract-based) bargaining mechanism
		Well-functioning (contract-based) bargaining mechanisms	Human capital
		Flexible working time arrangements	Reallocation of labour to more productive firms/sectors, possibly supported by active labour market policies - Labour mobility/ portability of pension rights
Public sector	Public debt and solvency risk	Adequate automatic stabilisers and budgetary room to apply these	Growth-friendly composition of public expenditure over the cycle
	Long-term sustainability of public finances	Sustainable and well-targeted social security systems	
Taxation	Debt bias in taxation, i.e. tax features favouring corporate and household debt	Differences and complexities in corporate taxation make it difficult for firms to diversify risks through cross-border activities	Labour-supply friendly tax system.
	Address tax distortions in the housing sector to reduce high household borrowing levels		

Source: Giudice, Hanson (2018)

economic events. Differences in inflation among the Member States could increase the real interest rate differences. These could reinforce the shocks by overheating the economic recovery.

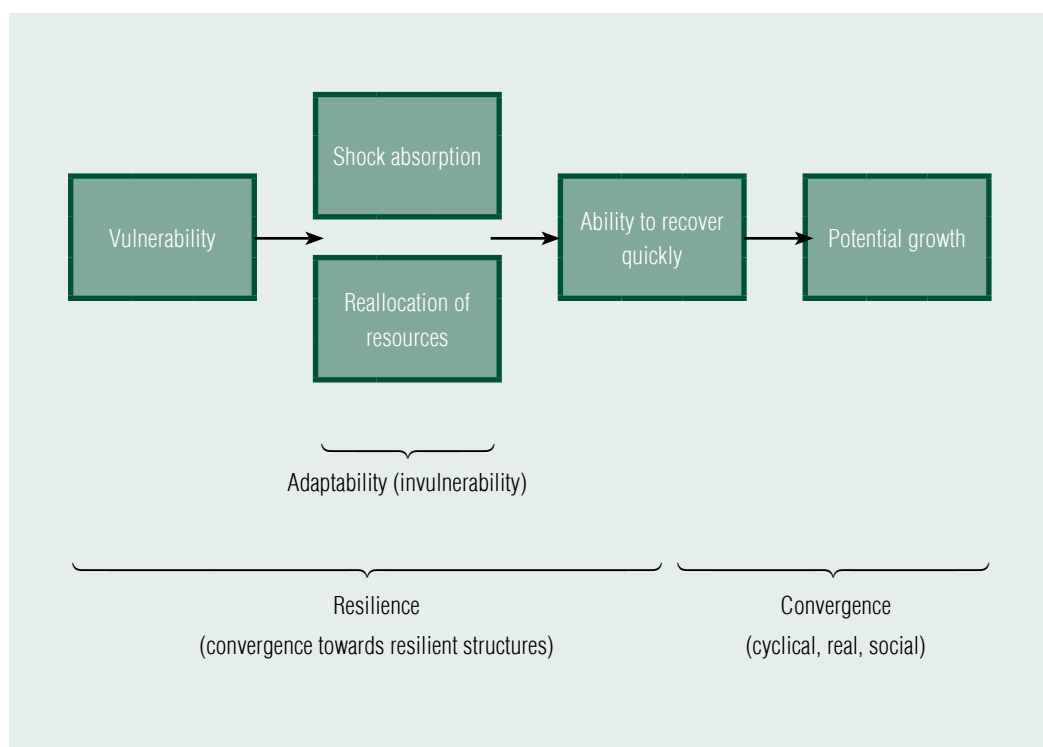
Resilient economies are able to avoid dangerous vulnerabilities. These economies can handle shocks more efficiently. All of these could contribute to avoiding unsustainable booms and reducing the severity of recession. It could efficiently mitigate the strong spillovers experienced in the euro area as well during the most recent crisis.

Economic resilience in the EMU system is a necessary but insufficient condition for convergence (cyclical, real and social) (see Figure 7). Figure 8 shows the key points of

the concept of economic resilience. In case of any given shock, a resilient economy will experience the effects of smaller deviation from the potential level than a less resilient economy, and it can recover more quickly to its potential. The convergence of resilient economic structures requires increasing relationship between these economies in terms of vulnerability and the ability to react to shocks, regardless of the structural differences that otherwise exist between the two economies. Through resilience, the Member States concerned sink into recession for only a relatively short period of time and continue to grow along their potential trajectory in the longer term (Figure 8). In the short term, real convergence depends on the resilience

Figure 7

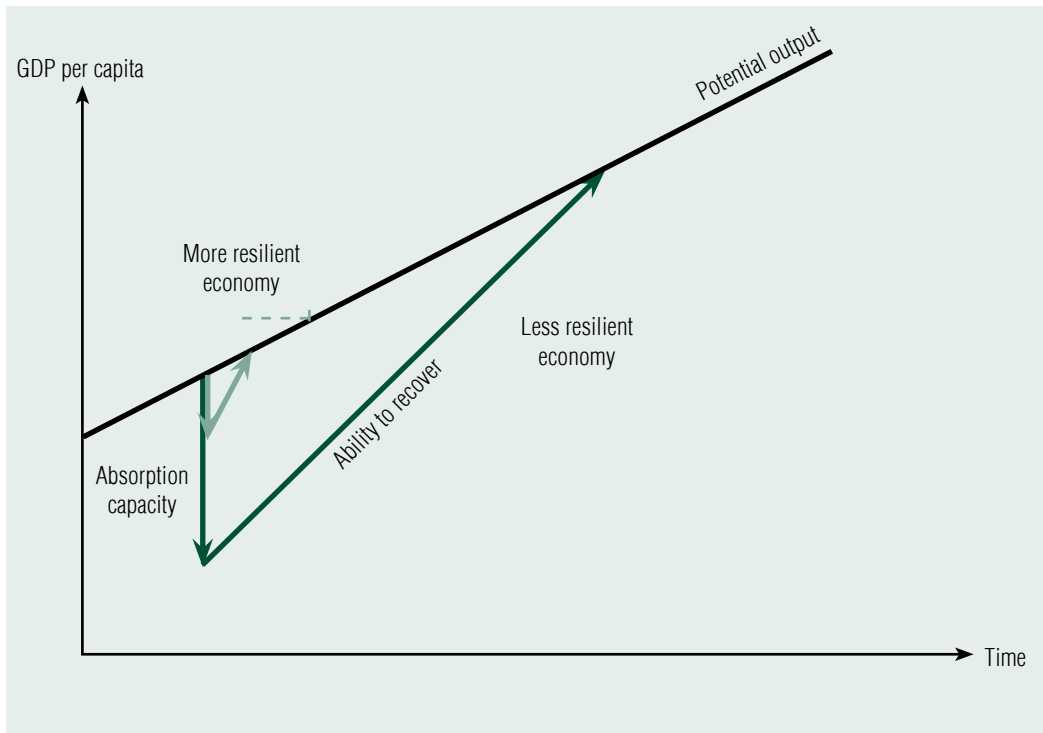
FRAMEWORK FOR ECONOMIC RESILIENCE AND CONVERGENCE



Source: DG ECFIN, quoted by: Giudice, Hanson, Kontolemis (2018)

Figure 8

ECONOMIC RESILIENCE AND SPEED OF RECOVERY



Source: Halmai (2019)

and adaptability of the economies. In respect of the strengthening of resilient economic structures, various policies in the crucial areas, such as labour markets and the market of competitive products and services, could all lead to similarly good performance. Country-specific solutions could prove important (Berti, Meyermans 2017).

In the medium and long term the decisive factors of growth potential (labour, physical and human capital, etc.) become crucial (see Figure 7). The less the shocks interrupt the trend growth, the faster they grow and catch up with the economic partners. An important condition for the sustainability of this convergence process is a socially acceptable distribution of income.

Resilience strengthens cyclical convergence and the efficiency of the single monetary policy. Preventing unsustainable booms and the subsequent deep and lasting recessions can help synchronise the business cycles of the Member States. The single monetary policy is less efficient in the monetary union if its Member States are at different stages of the economic cycle or if, in connection with the more restrictive behaviour of some Member States, the Member States have significantly different inflation rates. Some countries experienced a strong upswing before the crisis, which was later followed by a deep recession. Nevertheless, the business cycles in the euro area have become increasingly synchronised. As a result of political convergence and real

economic integration, the individual Member States happen to experience the same stages of the cycle more frequently than before.

Resilient economies are capable of more favourable long-term growth performance. The Member States without sufficient resilience may face persistently unfavourable trends in both long-term growth and social cohesion (see Figure 8). The lack of real convergence in the euro area in recent years can be a clear indication that the effects which occur are significant for convergence not only within the individual Member States, but also among the euro area Member States. Resilient economic structures can contribute to mitigating the social consequences of deep recessions. The positive employment effects of the efficient labour and product markets combined with active labour market policies and new opportunities, such as lifelong learning and an efficient social safety net, could all facilitate positive social achievements.

Resilient economies are able to withstand temporary shocks (credit crunch, impaired supply). At the same time, in the event of permanent shocks (e.g. permanent weakening of the external competitiveness of domestic sectors), resources (labour and capital) that can be mobilised are required for rapid adaptation.

Labour and product market regulations are important for both dimensions. Research conducted at the IMF found that deep recessions over the past four decades resulted in smaller and less permanent output losses in those economies which reformed their labour and product market regulations, compared to those economies where these reforms did not take place (Aiyar et al., 2019). Flexible *national* labour market policies, product market regulations and corporate insolvency frameworks could strengthen the euro area's economic resilience. More flexible regulation can facilitate faster labour market adaptation. At the same time, well-designed unemployment

insurance schemes, complemented with job-seekers' assistance could ensure security for the employees. Therefore, in the case of product markets, lesser administrative obstacles and lower startup costs create opportunity for faster adaptation. The flexible regulation of labour and product markets has a greater role in economic resilience than the lack of autonomous national monetary policy and nominal exchange rate in the Member States of the monetary union.

Germany could be a good example after the 2008 financial and economic crisis. Despite the great recession, the unemployment rate barely increased. The companies were able to adjust their labour costs through changes made to wages and above all, the hours worked, as well as changes in the collective bargaining and welfare systems. As a result of the reforms mentioned above, the German economy recovered faster than several similar European economies.

However, the Portuguese and Spanish enterprises were much less flexible. They were forced to terminate a number of temporary jobs, partly because of jobs protected by strict employment protection rules. As a result of the former, unemployment increased dramatically from 2009, further exacerbating the impact of crisis.

More efficient labour market policies do not necessarily mean general deregulation and less protection for everybody. Each Member State can design different packages reflecting their social preferences. For example, the Anglo-Saxon and Scandinavian labour market institutional approaches are able to ensure the necessary resilience. Both are characterised by limited job protection. However, these approaches result in different degrees of employee protection and different fiscal costs. The Scandinavian system relies on more generous unemployment support, with strong job seeker assistance. The allocation

of resources after the global financial and economic crisis developed more unfavourably in the less efficient and resilient national insolvency systems than in the higher quality regimes.

With the increasing resilience of certain Member States, the structural reforms implemented at national level could also reduce the anti-cyclical (national fiscal or common monetary) policy burdens in stabilizing the euro area economies. Greater nominal and real inflexibilities in themselves make the economies concerned more sensitive to shocks. All these increase the need for countercyclical policies. At the same time, if a Member State has limited room for fiscal manoeuvring, for example due to high debt burden, then the need for fiscal expansion could undermine confidence. The latter could even eliminate the expected expansionary effects of the fiscal stimulus, with a simultaneous further increase in the debt burden. In addition to the need for further structural reforms in the euro area

economies, all these underline the need to create room for fiscal manoeuvring.

The further strengthening of structural reforms is crucial in the European economy. On the one hand, these reforms could improve productivity, growth potential and economic convergence. On the other hand, in the context of the aforementioned as well, these reforms build macroeconomic resilience against possible future negative trends. The latter is also a fundamental goal in periods of growing uncertainty and increasing global and domestic risks.

Similar performance by the euro area Member States in respect of shock absorption and recovery from shocks could improve the efficiency of the common policies, including monetary policy. This structural convergence not only increases the income and employment stability, but also strengthens long-term growth potential. It limits the effects of hysteresis, such as the effects related to long-term unemployment, or the more limited use or accumulation of capital.

NOTES

¹ Resilience derives from the Latin verb ‘resilire’ (springing back, bouncing back). The English word ‘resilience’ means flexibility, agility, resistance. The original meaning of the expression refers to a characteristic of an object relative to an active force. A resilient object is not deformed permanently if subjected to an external force. If the term is used for a person, then a resilient person is someone who, despite having faced serious illnesses, setbacks and life crises, is always able to bounce back, accept life bravely and develop new perspectives within a short period of time. German psychotherapist and author Micheline Rampe calls the secret of this internal strength the R (i.e. resilience) factor.

² It also shows fast increase in the number of Google search results in recent years. The search for this category has been similar to that of the concept of sustainability since 2016 (Brinkmann et al., 2017).

³ According to OECD analyses, shocks proved to be more permanent in countries which maintain inflexible product and labour markets. See: Duval, Vogel (2008); Caldera-Sanchez, et al. (2016); Sutherland, Hoellen (2014).

⁴ Prior resilience means decreasing the vulnerability of the economy to shocks, while subsequent resilience means the capacity for absorbing and overcoming the shock.

- ⁵ The digital economic programmes refer to those products and service transactions between producers and users which are realised through web-based intermediaries. See Tirole (2017).
- ⁶ In Neo-Keynesian models the menu costs (i.e. the costs of changing the prices) are important factors of the inflexibility of prices, and consequently of the business cycles (Mankiw, 1985). If e-commerce reduces the costs of price adjustments, the business fluctuations decrease. Online prices are more flexible than the traditional store prices, but they still show frictions; see Gorodnichenko, Talavera, Sheremirov (2005).
- ⁷ For example, excessive investment in the construction sector.
- ⁸ The deepening of the internal market promotes competition among enterprises. It enables the Member States to exploit the comparative advantages more fully. All these require the reallocation of resources between enterprises and sectors.
- ⁹ Additional factors may include price regulation or value added tax.
- ¹⁰ If the economy is hit by a permanent shock, then transition to a new balance is necessary. It requires the change of relative prices and the reallocation of production factors.
- ¹¹ For the impact of the single market on resilience see Jolles, Meyermans (2018).
- ¹² According to the global input-output database, autonomous investments increase the aggregated output in these sectors the most, which could almost double the initial investments.
- ¹³ In case of professional services and retail and network industries the OECD recommends the use of indicators reflecting sectoral regulations.
- ¹⁴ The latter could not be analysed in this study.

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