

I. Economic Resilience in EMU

This section discusses why convergence towards resilient economies is key for improving the functioning of the Economic and Monetary Union. Economic resilience refers to the ability of countries to withstand shocks and for GDP growth to recover quickly to potential levels. The experience of recent years has shown how the lack of resilience in one or several economies in the euro area can have significant and persistent effects not only on the countries concerned but also on other countries and the euro area as a whole, through multiple channels. This section focuses on which policies can contribute to resilience in the EMU. To do so, it develops the notion of economic resilience, provides a framework to identify key areas for resilience in a monetary union and a taxonomy of factors and policies that influence the resilience of Member States' economies. The proposed framework is not a one-size-fits-all approach, but leaves room for country-specific policy settings and the sharing of best practices. There are notable differences in economic resilience among euro area countries and the broad taxonomy in this section could provide guidance for the prioritisation of reforms. ⁽¹⁾

I.1. Defining economic resilience and its importance in EMU

The economic and financial crisis revealed that many euro area economies had a number of vulnerabilities that left them ill prepared to smoothly absorb and adjust to economic shocks. The depth of the downturn was linked to the limited absorption capacity of Member States but also to the fact that the crisis coincided with the unwinding of accumulated current account imbalances and the bursting of housing bubbles, which resulted in large and persistent drops in output (relative to the size and complexity of the shock itself). The unwinding of these imbalances had repercussions for sovereign debt via sovereign-bank feedback loops, and created spillover effects across Member States that endangered the stability of the euro area as a whole. It resulted in a period of divergence among Member States, across several dimensions.

The crisis highlighted the need to strengthen economic resilience in the Economic and Monetary Union, defined as the ability of a country to avoid or withstand a shock and for GDP growth to recover quickly to its potential level after having fallen into recession. Resilient economic structures prevent economic shocks from having significant and persistent effects on income and employment levels, thereby also reducing economic fluctuations. ⁽²⁾

Economic resilience entails three elements: (i) the vulnerability to shocks (ii) the shock absorption capacity and (iii) the ability to recover quickly after a shock.

Vulnerability refers to whether and how strongly a shock hits the economy. It reflects concepts such as exposure to shocks and the frequency and intensity of shocks. It depends on a host of parameters, including, for example, the structure of the economy, various policy settings, the financial sector and asset markets, and the state of the non-financial sector. Some countries may be more exposed than others by the same shock.

The absorption capacity reflects the ability of an economy to cushion the direct impact of a shock, minimising immediate output and job losses. A shock can be absorbed by spreading its effects across the economy –to other variables than employment and output – temporarily and over time, for example through automatic stabilisers, responsive wages and prices, credit provision and financial risk sharing .

reflection process and issued a set of "resilience principles" for the G20 countries; Note on Resilience Principles in G20 countries, G20, March 18, 2017. The OECD has also undertaken significant related work in recent years, showing a.o. that shocks are more persistent in countries with rigid product and labour markets; See: <https://www.oecd.org/eco/growth/economic-resilience.htm>; Duval, R. and L. Vogel (2008), 'Economic resilience to shocks: The role of structural policies', *OECD Journal: Economic Studies* Vol. 2008/1; Caldera-Sanchez, A., A. de Serres, F. Gori, M. Hermansen and O. Röhn (2016), 'Strengthening economic resilience: insights from the post-1970 record of severe recessions and financial crises', *OECD Economic Policy Papers* No. 20; Sutherland, D. and P. Hoeller (2014), 'Growth Policies and Macroeconomic Stability', *OECD Economic Policy Papers* No. 8. Important contributions to this debate have also been provided by the IMF and ECB; IMF (2016), 'A Macroeconomic Perspective on Resilience', Note to the G20.

⁽¹⁾ This section was prepared by Gabriele Giudice, Jesper Hanson (during his secondment to the European Commission), and Zenon Kontolemis. The paper represents the author's views and not necessarily those of their respective affiliation.

⁽²⁾ The concept of resilience has attracted considerable attention recently. The German Presidency of the G20 has launched a

The ability of an economy to recover affects how persistent the effects of shocks to the economy are. It reflects the capacity to ensure a swift return to the previous status, when the shock is temporary, or a smooth reallocation of productive resources, which is affected by product and labour market flexibility. ⁽³⁾ The extent of the needed adjustment or reallocation depends on the type of shock. Permanent shocks typically require a significant reallocation of resources. The faster this process is, the stronger the recovery will be.

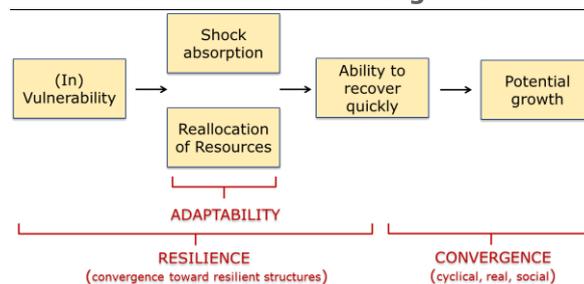
Hence, resilient economic structures can be defined as those which prevent economic shocks from having significant and persistent effects on income and employment levels, and thus are able to reduce the impact of economic fluctuations. This is particularly relevant in a monetary union, where the policy instruments to address the effects of significant economic events are more limited and where inflation differentials can exacerbate real interest rate differentials that can magnify shocks by fuelling economic booms.

Resilient economies are able to avoid dangerous vulnerabilities and deal more efficiently with shocks, which helps prevent unsustainable booms and reduces the depth of recessions, thereby preventing the strong spillover-effects across the euro area witnessed through multiple channels during the crisis.

As such, economic resilience can be seen as a necessary though not a sufficient condition for convergence in the EMU, whether cyclical, real or social. Economic resilience ensures that countries spend relatively short periods in recessions and instead continue to grow along their long-term potential path (Graph I.1). ‘Real convergence’ therefore depends, in the short run, on the resilience and adaptability of economies and in the medium to long term on all those factors that determine growth fundamentals (e.g. labour, physical and human capital, etc.). Put differently, the less frequently trend growth is interrupted by shocks, the faster countries grow and catch up with other economic partners. During such convergence process it is essential to ensure that a socially-acceptable distribution of income is maintained

⁽³⁾ On the impact of the Single Market on resilience, see for example, Jolles, M. and E. Meyermans (2018), ‘Economic resilience, the Single Market and EMU: a self-reinforcing interaction’, Quarterly Report on the Euro Area, Vol. 17, No. 1, pp. 7-22.

Graph I.1: A framework for economic resilience and convergence



Source: DG ECFIN

Resilience fosters cyclical convergence and the effectiveness of the single monetary policy. Preventing unsustainable booms and the deep and lasting recessions that follow, as witnessed during the recent crisis, would help business cycles in the Member States to synchronise. This is important in a monetary union, because the conduct of the single monetary policy is less effective if countries are in different stages of the economic cycle or experience significantly different inflation rates, as some countries would need a more restrictive policy stance than others. Business cycles in the euro area have become increasingly synchronised, meaning that countries more often tend to be in the same phase of the cycle due to policy convergence and trade integration. However, the amplitude of business cycles differs across Member States. Prior to and during the crisis, some Member States experienced strong booms followed by deep busts.

Resilient economies are better able to resume long-term growth and promote positive social outcomes. Insufficiently resilient economies may experience long and persistent downturns and can affect long-term growth and social cohesion. The lack of real convergence seen in recent years in the euro area suggests that the effects can be important for cohesion not only within countries but across the member states of the euro area. Resilient economic structures help prevent the negative social consequences of deep recessions and further promote social outcomes by combining the positive employment effects of efficient labour and product markets with active labour market policies to support the search for new opportunities, including possibilities for lifelong learning and an effective social safety net.

I.2. A stylised description of resilience factors and relevant policies

An appreciation of the tri-faceted nature of economic resilience- vulnerability, absorption and recovery- helps to better identify those factors which affect it and the kinds of policies that could support it. To minimise vulnerabilities, preventive policies that reduce exposure to shocks are needed. Preventive policies have received considerable attention in recent years, with the introduction of the Macroeconomic Imbalance Procedure (MIP) and the reinforcement of the preventive part of the EU's fiscal rules. To improve absorption, responses need to be immediate (by governments, the financial and non-financial sectors) so as to minimise the impact of shocks. Automatic stabilisers and consumption smoothing through savings or borrowing should be emphasised. Finally, stronger and quicker recoveries can be promoted by policies that facilitate the adjustment or reallocation process in the case of more permanent-type shocks, though these may take more time and rely on the institutional frameworks in each Member State.

This section provides a first analysis of factors and policies that influence economic resilience for each of the three phases identified (vulnerability, absorption and recovery). Table I.1 maps the relevant factors for the three phases in the financial, product and labour markets and in the public sector.

Vulnerability: reducing exposure to shocks

Member States are exposed to a wide range of domestic and external shocks that they cannot directly influence. These different shocks affect countries through different channels. One can distinguish between temporary or permanent shocks, supply or demand shocks, and policy shocks. These affect countries in different ways, and their effects may be amplified through indirect channels such as confidence effects. The exposure of a country can change depending on policies and the evolution of its economic structures. For example, a country with poor energy efficiency whose outputs have a high energy intensity and which is highly dependent on foreign energy imports, will be more exposed to a change in global energy prices, which recent experience shows can be very substantial over a relatively short period. Often vulnerabilities interact and accumulate,

increasing the likelihood that a common shock affects the more vulnerable country much harder.

The crisis particularly highlighted the exposure to financial shocks. Sudden interest rate changes or asset prices changes can have strong economic effects. Indebtedness exposes Member States to the impact of changes in market interest rates, which can abruptly change perceptions about sustainability risks. Economies that borrow predominantly through short-term debt and flexible interest rate loans are more exposed to changes in short-term interest rates, which tend to vary more sharply. Microprudential supervision, as well as use of macroprudential instruments can limit financial vulnerabilities. Prudential measures can reduce the risk that diverging real interest rates that fuel asset price bubbles and misallocation of resources (e.g., overinvestment in the construction sector). A debt bias in corporate taxation and tax breaks for housing, such as mortgage interest deductibility, can also contribute towards debt accumulation by firms and households. Measures to improve the sustainability of public finances, including the sustainability of pension and health systems are important to reduce risks to public sector balance sheets.

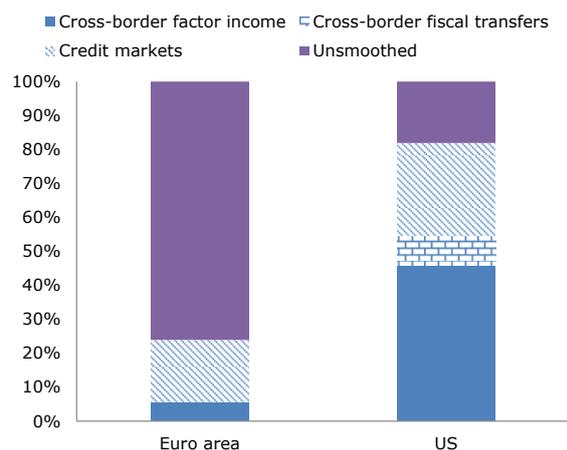
Absorption capacity: cushioning the immediate effect of a downturn

Financial markets can cushion shocks via risk sharing on capital markets, and via the use of savings and access to credit to smooth consumption and production. Graph I.2 shows that shock absorption through cross-country equity holdings and credit markets is lower in the euro area than in the US. ⁽⁴⁾ The crisis showed that a weak banking sector may result in pro-cyclical credit tightening during a downturn (Graph I.3). A healthy financial sector is also important for the transmission of monetary policy, which can more effectively absorb common euro area shocks through changes in interest rates and in liquidity provision if these measures spread appropriately across the euro area economy. It is therefore important to ensure a well-capitalised banking sector. Beyond the banking sector, resilience can be increased by greater use of equity financing. Cross-border equity holdings are relatively small in the

⁽⁴⁾ European Commission (2016), 'Cross-border risk sharing after asymmetric shocks: evidence from the euro area and the United States', Quarterly Report on the Euro Area, Vo.15, No. 2.

euro area, but in contrast to credit exposures, they did not fall during the crisis. ⁽⁵⁾ The measures to create a Capital Markets Union are therefore a priority to ensure that viable firms retain access to finance during recessionary periods and to strengthen the absorption of shocks through cross-border ownership of financial assets.

Graph I.2: Risk Sharing



(1) The figure shows the absorption of asymmetric output shocks across EA Member States and US states. The green bars show the impact of shocks on consumption. In the Euro Area, a 1% decline in GDP leads to a consumption decline of about 0.8% versus only 0.2% in the US. The purple, light blue and dark blue bars show the contribution of risk sharing via credit markets (cross-border borrowing), fiscal transfers, and capital markets and labour income to shock absorption. (2) Capital markets and credit markets absorb less than 6% of asymmetric shocks to euro area GDP, as opposed to the US where capital markets are the main absorption channel. Shock absorption through credit markets is also lower in the euro area than in the US.

Source: Table I.1 in Nikolov, P. (2016), 'Cross-border risk sharing after asymmetric shocks: evidence from the euro area and the United States', Quarterly Report on the Euro Area Vol. 15, no 2.

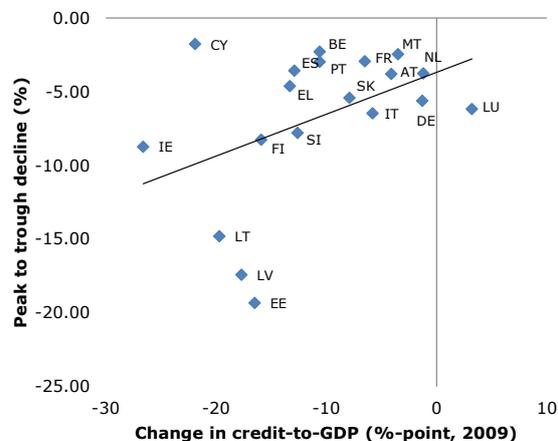
Properly functioning labour market institutions responsive to business cycle conditions may dampen the effect of shocks on employment and are important to enhance the responsiveness of competitiveness. Wage inertia in the face of a shock can result in a sharper rise in unemployment. ⁽⁶⁾ Responsive institutions to cushion shocks include the existence of flexible working time arrangements and flexible wage

⁽⁵⁾ Valiante, D. (2016), 'Europe's Untapped Capital Market: Rethinking integration after the great financial crisis', CEPS Paperback, London: Rowman & Littlefield International.

⁽⁶⁾ Bakker, B.B. (2015), 'Employment and the Great Recession: The Role of Real Wages', IMF Working Paper 15/229.

setting mechanisms, which may reduce the impact on headcount employment levels. ⁽⁷⁾

Graph I.3: Pro-cyclical credit tightening



(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

Smoothly adjusting prices are important to foster adjustments in competitiveness and ensure that changes in labour costs pass through to, or match, adjustments in consumer prices. This prevents the burden of absorption from falling on the purchasing power of households and may also help to regain competitiveness. ⁽⁸⁾ Price flexibility is lower in the euro area compared to the US and is particularly low when prices are regulated. ⁽⁹⁾ Swift price responses are also important to prevent inflation differentials from magnifying the impact of shocks through real interest rate effects. ⁽¹⁰⁾ Addressing barriers to cross-border activities, such as differences or complexities in taxation, may enhance cross-country diversification of firms, reducing exposure to individual economies.

⁽⁷⁾ Flexible working-time arrangements helped euro area firms to adjust, survive and retain their skilled workers at the beginning of the great recession, see e.g. Balleer, A., B. Gehrke, W. Lechthaler and C. Merkel (2016), 'Does short-term work save jobs? A business cycle analysis', European Economic Review, 84, 99-122.

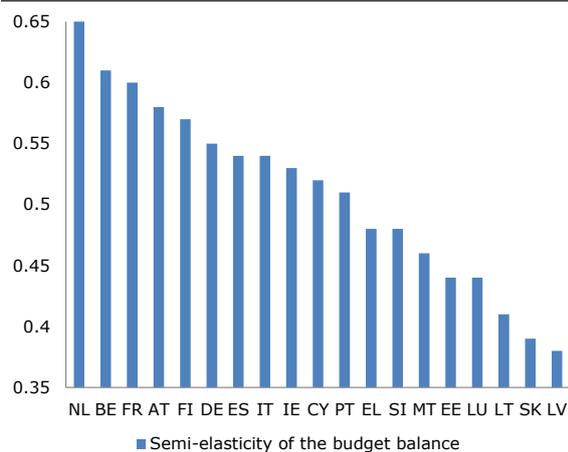
⁽⁸⁾ ECB (2016), 'Increasing resilience and long-term growth: the importance of sound institutions and economic structures for euro area countries and EMU', Economic Bulletin, Issue 5, 2016.

⁽⁹⁾ Dhyne, E., Konieczny, J., Rumler, F. and P. Sevestre (2009), 'Price rigidity in the euro area: an assessment', European Economy Economic Papers No 380. Alvarez, L. et al. (2005), 'Sticky prices in the euro area: a summary of new micro evidence', ECB Working Paper No. 563.

⁽¹⁰⁾ A strong responsiveness to shocks is key to overcome this so-called "Walters' critique". See, for instance, European Commission (2008), "EMU@10", European Economy No. 2.

Finally, governments contribute to shock absorption via automatic stabilisers. For automatic stabilisers to operate optimally, budgetary expenditures need to be sufficiently responsive to the economic cycle and well-targeted to those who are most affected by a shock. Graph I.4 shows that budgetary elasticities differ across countries. Noting that the effectiveness of automatic stabilisation varies across countries and that even countries with smaller budgetary elasticities can stabilise their economies, these mechanisms can be further improved through effective unemployment benefit schemes which reduce income losses and help to support demand, and through the build-up of buffers in the expansionary part of the cycle. Built-in buffers are also needed in viable social security systems, so they are in a position to be able to absorb unexpected shocks. Containing the part of the budget made of inelastic outlays could leave more room for policy action to absorb the shock.

Graph I.4: Semi-elasticity of budget balance



(1) Elasticity of budget balances varies across Member States, affecting automatic stabilisation

Source: Mourre, G., Astarita C. and S. Princen (2014), 'Adjusting the budget balance for the business cycle: the EU methodology', *European Economy Economic Papers* No. 536.

The recovery phase: reallocation of resources

Product market institutions that foster competition and provide a business-friendly environment – by facilitating a speedy entry of new actors and exit of inefficient firms – are important to foster reallocation in the recovery process. A number of papers show that product market regulation and inflexible economic institutions can reduce

resilience to shocks.⁽¹¹⁾ The insights from these work strands are highly relevant for the euro area. There is also substantial evidence suggesting that Member States with less restrictive product markets and enabling business climates normally experience stronger recoveries.⁽¹²⁾ Lack of market entry and competition may also protect profit margins in case of economic booms, thereby fuelling the build-up of imbalances and preventing a timely reallocation to more productive sectors.⁽¹³⁾ A number of reforms are facilitating the ease of entry and expansion of new firms, ensuring the quality of public administration, and limiting sectoral regulations such as retail regulations and regulated professions.⁽¹⁴⁾ An efficient judicial system supports business dynamics by facilitating contract enforcements and via effective insolvency frameworks that enable the winding down of unviable firms and the swift redeployment of resources.

Labour market adjustment is also important for ensuring the smooth transition of workers to new opportunities. Member States with overly protected labour markets tend to see employment levels recover more slowly.⁽¹⁵⁾ Restrictive employment protection legislation increases separation costs and may prevent more productive firms from hiring new employees. This can lead to labour market dualism, with multiple negative implications, including in terms of incentives to accumulate human capital. Flexible employment protection legislation, which make it easier to both separate from employees during downturns and provide higher quality contracts for all during upturns, needs to be complemented by adequate social

⁽¹¹⁾ Pelkmans, J., Montoya, L.A and A. Maravalle (2008), 'How product market reforms lubricate shock adjustment in the euro area', *European Economy Economic Papers* No. 341.; Canova, F., Coutinho, L. and Z. Kontolemis (2012), 'Measuring the macroeconomic resilience of industrial sectors in the EU and assessing the role of product market regulations', *European Economy Occasional Papers* No. 112.; Sondermann, D. (2016), 'Towards more resilient economies: the role of well-functioning economic structures', *ECB Working Paper Series* No. 1984.

⁽¹²⁾ Cf. ECFIN (2017), 'Ease of doing business', Note for the Eurogroup, 15 February 2017; IMF (2017), 'Structural Reforms and External Rebalancing', Culiuc A. and A. Kyobe; Pelkmans, J., Acedo, L. and A. Maravalle (2008), 'How product market reforms lubricate shock adjustment in the euro area', *European Economy Economic Papers* No. 341.

⁽¹³⁾ See, for instance, Praet, P. (2014), 'The financial cycle and real convergence in the euro area', speech at the Annual Hyman P. Minsky Conference on the State of the US and World Economies, Washington DC.

⁽¹⁴⁾ See. ECFIN (2017), 'Investment in the Euro Area: Common principles', Note for the Eurogroup, 4 April 2017.

⁽¹⁵⁾ ECB (2015), 'Comparisons and contrasts of the impact of the crisis on euro area labour markets', *ECB Occasional paper series* 159.

safety nets and active labour market policies to support the taking up of new opportunities in more productive activities. Labour mobility is also a relevant channel of adjustment that has become more important in the EMU. ⁽¹⁶⁾ Improving the portability of pension rights and social security benefits could support labour mobility. Education and training also play a crucial role in the reallocation process of labour.

Financial markets can play a significant role in supporting recoveries by ensuring that financing is available for the most productive and financially-viable firms during the reallocation process. Figure 4 shows that high public and private debt levels are not only associated with vulnerabilities but also with weaker recoveries. A swift resolution of non-performing loans releases resources for productive purposes. In addition, a diversified financial landscape, including developed equity markets and venture capital investors, supports the funding and growth of dynamic firms.

To sustain the economic recovery, governments need to avoid the loss of productive capacity during downturns. Growth-friendly public

expenditure, such as public investment and active labour market policies need to be preserved as much as possible throughout the cycle. The use of spending reviews can promote efficient expenditure allocation and growth-friendly budgetary decision making. ⁽¹⁷⁾

I.3. Conclusion

There are many factors which affect economic resilience that are crucial for the functioning of the EMU given their economic, social and political relevance. This paper identifies a number of priority policy areas for future reforms which merit continued attention and deeper analysis because of their relevance to the three dimensions of resilience. Making progress on these priorities would reduce the vulnerability of euro area economies to shocks, would enhance the degree of shock absorption within the euro area, and would strengthen the ability of euro area economies to recover from shocks. A more thorough analysis is needed to identify in a more granular way the specific policies and legislative action to implement such reforms.

⁽¹⁶⁾ Arpaia, A., Kiss, A., Palvolgyi, B. and A. Turrini (2016), 'Labour mobility and labour market adjustment in the EU', *European Economy Discussion Paper* No. 539.

⁽¹⁷⁾ European Commission (2016) 'Quality of Public Finance – Spending Reviews for Smarter Expenditure Allocation in the Euro Area', Note for the attention of the Eurogroup.

Table I.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 NPLs
	Corporate debt	Deep capital markets, allowing for funding diversification and equity risk-sharing.	
	Tackling bank-sovereign loops		
Product market/ Business environment		Price flexibility Properly functioning Internal Market where firms can diversify risks (e.g. by increasing exports when domestic demand weakens)	Business regulations Competition – internal market
	Diversification of the economy		Insolvency procedures Judiciary
Labour market		Responsive wages Well-functioning (contract-)bargaining mechanisms	Properly functioning labour market institutions 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: European Commission