1. Introduction: economic crisis and resilience in the European Union

Gillian Bristow and Adrian Healy

1.1 INTRODUCTION AND AIMS

The economic crisis of 2008–09 heralded the most severe economic downturn in the history of the European Union (EU). However, not all regions experienced economic decline, and rates of recovery have varied greatly. Whilst some places experienced a swift return to pre-crisis levels of employment and economic output, for others the process has proved to be much more protracted, with many economies entering a period of sustained stagnation. It is only now, a decade after the first signs of the impending economic crisis emerged, that we even begin to have the data to fully understand how this has affected the various regional economies of the EU. The tenth anniversary of the crisis thus represents a timely point to assess the impact of the crisis, its geography and the varying capacities of regions to cope with and recover from its effects.

This differentiated experience raises important questions as to why some regions prove to be more able to withstand economic shocks than others, and what influences their ability to recover. As such, it has led to an interest in the concept of economic resilience, both amongst academic researchers and policy-makers as well as in the popular press. This increasing interest in the resilience of economies to shocks and crises raises its own questions: what do we actually mean when we speak about a *resilient* economy? What is it that makes some economies more resilient to economic shocks than others? And significantly, how might policy-makers, particularly at regional and local levels, influence the scope for their territory to be resilient to economic shocks?

This book seeks to address these questions through exploring the results of detailed research undertaken on the economic resilience of regions across European regions between 2012 and 2014. This research was undertaken as part of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, and partly financed by the European Regional Development Fund.

The aims of the book are as follows:

- to articulate the development of a robust method for analysing resilience outcomes in cross-comparative perspective;
- to provide a robust quantitative analysis of the economic resilience of NUTS 2 regions across Europe; and
- to draw upon detailed qualitative case studies of particular regions to illuminate the key factors that shaped their resilience outcomes (focusing in particular on the agency of key actors, notably policy-makers, within the regions).

This introductory chapter begins by providing some context and giving an overview of the economic crisis that hit European regions from 2007 and which took hold in 2008–09. It then proceeds to introduce the concept of regional economic resilience and to outline the key approach to measuring and assessing regional economic resilience which was developed for this research. This chapter concludes by providing an outline of the organisation and structure of the book, and a summary of its key themes.

1.2 THE ORIGINS AND SPREAD OF THE 2008–09 ECONOMIC CRISIS

Economies are never static but rather are dynamic entities that are in a continuous state of flux. They expand and contract in response to events, caused by the interplay of decisions taken by a complex web of connected individuals, firms, public agencies and other organisations. Occasionally, these existing transactional pathways of production and consumption are interrupted by some shock, with consequences at the individual, local, regional, national or even international level.

The focus of this book is on the economic crisis that hit European regions and indeed the wider global economy from 2008–09. This acted as a major shock across the economies of Europe, with severe, and often long-lasting, consequences. The scale of this event provides an opportunity for comparative assessment, the results of which can help to inform our understanding of more localised economic shocks – such as the closure of a major employer, or a more national or regional event, such as with the closure of important export markets or technological shifts that undermine whole industries.

For many, the trigger for the economic crisis was the ‘credit crunch’ that emerged in the latter part of 2007, although this had its own origins in multiple events of the preceding decade. The credit crisis began when

foreclosure and default rates went up, and house prices went down. It was thus the bursting of the US housing bubble that brought the global financial structure crashing down in 2008 and which plunged the world into recession (Gamble, 2009; Martin, 2011). The restriction on the flow of credit in the US led house prices to fall as the supply of new mortgages dried up and some of those with mortgages were forced to default. This quickly had significant repercussions across international credit markets owing to the growing incidence of bank and non-bank institutions investing in residential mortgage-backed securities (Aalbers, 2009). From the late 1990s, mortgage portfolios had been widely sold to investors across the world, including municipal local governments who saw them as offering high returns for apparently low risk. As investors became wary of the exposure of banks to sub-prime mortgages, so levels of interbank lending dried up leading to an increase in the interbank lending rates and precipitating the collapse of several major financial institutions. Central banks began to intervene injecting extra liquidity into the system in a bid to persuade banks to keep lending to one another and to tide the markets over the worst effects of the collapse of the sub-prime market. This led to significant levels of intervention by national governments and international institutions to bail out major financial institutions, particularly banks.

Action to sustain liquidity and shore up the banks continued throughout 2008 and was increasingly accompanied by fiscal boosts to maintain the level of demand and prevent a descent into slump. By the beginning of 2009 it was clear that the global economy was facing a major recession and an International Monetary Fund (IMF) report published in January 2009 predicted that the recession for advanced economies was likely to be the worst since the 1930s, with a drop in output of 2 per cent (IMF, 2009). If realised, this would be the first time there had been an overall aggregate economic contraction for these economies during the post-war period, with the cumulative output loss being equivalent to the 1974–75 and 1980–82 recessions. Individual countries began to publish very gloomy forecasts of their prospects, with growing fears that in some cases the drop in output could be worse than experienced in 1929–32 (Gamble, 2009). As economic conditions within the European economy tightened and concerns for future income levels rose, demand for products also fell.

One of the crucial factors underpinning the economic crisis of 2008–09 and accounting for its rapid international spread was the interconnection of the global financial markets. Whilst the sub-prime mortgage crisis was initiated in the US, the repercussions were felt rapidly throughout the whole financial system, owing both to the exposure of non-US banks to sub-prime mortgage risks, either due to their ownership of US subsidiaries

or to their ownership of US mortgage-backed assets/liabilities, and to the fear of unknown levels of exposure to this risk within banking portfolios (Aalbers, 2009). Thus, local housing and mortgage bubbles became systematically linked into and destabilised global financial markets and institutions. Local mortgage lending had effectively become globalised by being integrated into global bond markets and flows of investment funds (Martin, 2011).

In the run-up to the global financial crisis in 2008, the grip of finance on much of the European economy had strengthened enormously. Financial expansion was most pronounced in the UK, Ireland, France and Iceland. Indeed, the ratio of financial assets to GDP increased sharply, reaching nearly 600 per cent in the EU, nearly 700 per cent in France and the UK, and 900 per cent in Ireland (Overbeek, 2012).

The transmission effects of external trading links were not confined to the financial sector however. The importance of trade across the European single market and with external trading blocs has increased significantly in recent decades (Smith, 2013). What happens in one country now affects trading conditions in many others. These trading links are not just in terms of finished products, but rather are the function of increasingly globalised supply-based value-chains, where components are sourced from many locations before being assembled into a finished product.

The differential integration of national and regional economies into these globalised financial markets and supply chains played a role in influencing how the crisis unfolded in different parts of Europe. The crisis took various forms in different national and regional contexts depending upon local conditions and on the form of economic and political integration of each particular country and region into global financial markets and the international division of labour (Hadjimichalis and Hudson, 2014). In Europe, the first signs of crisis emerged in Spain's real estate sector and the Irish banking sector, as well as in some central and eastern European countries where increasing reliance on foreign investments and exports paved the way for rapid transmission of the crisis. This was quickly followed by growing problems in southern Europe where problems in the eurozone were exacerbated by the changing contours of the global economy and the growth in competition in many of its key markets from Asian economies (Hadjimichalis, 2011).

As of early 2010, the crisis in Europe mutated from a banking crisis into a sovereign debt crisis. This emerged through two principal causes: first, where the private debts emanating from the property-led credit crisis were transferred to the public sector; and, second, where public expenditure commitments raised fears of the ability of these governments to service levels of debt, particularly in the face of falling fiscal receipts

and increasing social obligations. This led to increases in the interest rates being charged for public debt and significant reductions in public sector expenditure in order to rebalance public finances, further exacerbating the economic crisis in some parts of the European territory. By 2010, general government debt stood at 85 per cent of GDP for the eurozone as a whole (Overbeek, 2012), and extreme austerity measures began to be implemented notably in Greece, Ireland and Portugal by the EU, European Central Bank (ECB) and IMF (Hadjimichalis and Hudson, 2014).

1.3 THE UNEVEN GEOGRAPHY OF THE CRISIS

In summary, the headline effects of the global ‘credit crunch’ were the bankruptcy and bailout of over-exposed banks across western economies, resulting in a second wave crisis characterised by rising levels of sovereign debt, swingeing austerity measures in affected economies and the rise of co-ordinated international support. Austerity measures, coupled with the earlier liquidity crisis, then caused firms and households to reduce consumption reinforcing the contractions in economic output first highlighted in 2008.

Studies of the trajectories of the 2008–09 global economic crisis have highlighted the complex role played by geography in both its formation and fermentation (French et al., 2009; Aalbers, 2009). As the crisis mutated from a financial crisis in the banking sector to a fiscal crisis of the state, it conditioned a ‘dynamic of cascading geographic effects’ characterised by abundant variations in both impacts and responses (Harvey, 2011; p. 17). This is particularly evident across Europe where the effects of the crisis and its aftermath were not only widespread and contagious, but also highly geographically uneven, with significant variations observed between regions and localities as well as between nations (Hadjimichalis and Hudson, 2014; Hendrikse and Sidaway, 2014).

Early analyses of the crisis highlighted the likelihood that the impacts of both bank bailouts and public sector spending cuts would be highly geographically uneven, with spending cuts likely to impact most heavily on structurally weaker nations and regions with a greater dependence on the public sector for employment as well as welfare and public service provision (e.g. see Davies, 2011). Similar conclusions were reached by those examining the impact of the crisis on national government policies, with many national governments expected to respond by being more selective in their approach to industrial policy and support for particular businesses and sectors (Aggarwal and Evenett, 2012). There remain, however, many more questions than answers surrounding the emerging differences between

European regional economies following the crisis, with growing interest in developing a fuller, more theoretically informed understanding of the differences between regions in their vulnerability to economic shocks and their ability to adapt to serious disruptions in the economic environment.

1.4 THE CONCEPT OF RESILIENCE

The concept of regional resilience has begun to develop widespread appeal both in the academic literature and in policy discourses around localities and regions (Bristow, 2010). This reflects the broader interest in resilience as a concept across a range of disciplinary areas and issues. Indeed, resilience has rapidly emerged as an idea whose time has come owing to ‘the generalised contemporary sense of uncertainty and insecurity’ (Christopherson et al., 2010; p. 3). It is a concept which now features in scientific and practice-oriented debates in a wide range of fields and domains including engineering, ecology, psychology, critical infrastructures and planning, as well as organisational studies. It features particularly strongly in the literature on natural hazards and disasters such as flood risk management, as well as climate change adaptation research. In essence, the appeal of resilience reflects the growing desire to understand how both natural and social systems (and the entities within them), cope with and respond to the array of changes they are now facing.

Economic resilience has quickly gathered credence as a concept with policy-makers and practitioners seeking to understand both why some places are better able than others to withstand economic shocks and/or recover quickly from them, and what they themselves might do to influence these capacities. Indeed, policy discourse around economic development at national, regional and local scales is increasingly replete with talk of the importance of building a resilient economy. However, there is a considerable and growing debate around what resilience actually means for regional economies, how it might be measured and, ultimately, how it is facilitated or achieved. Two immediate challenges to be addressed in defining resilience are first to identify the ‘system’ or scale of analysis (whether individual, region, society, coupled socio-ecological system etc.), and second, to define the characteristic shock or disturbance under analysis (its source, severity, temporal dimensions and so on). In short, in order to utilise the resilience concept, one must first answer the question ‘*the resilience of what to what?*’ (Carpenter et al., 2001).

As indicated above, the focus of this book is the economic shock which hit European regions (and indeed much of the global economy) from 2008. The comprehensive nature of this shock and its widespread effects provides

an opportunity to compare the differential abilities of regional economies to resist or recover from a system-wide and seismic shock to the economic landscape. For the purposes of our work, we have defined regions as synonymous with the NUTS 2 regional classification of Eurostat. Although there are conceptual challenges with this approach (McLeod, 2001), the availability of consistent datasets at this scale outweighs these difficulties. For comparative purposes we also make use of data at the NUTS 3 territorial scale, which we refer to as 'local' in order to differentiate from the regional scale.

Our conceptual framework draws upon an evolutionary perspective on resilience in line with the increasing theorising from evolutionary economic geography (EEG). At its heart, evolutionary thinking challenges the predominant notion in many traditional economic theories that economies exhibit linear dynamics and return to a static equilibrium. Real world economies are instead understood to be complex adaptive systems characterised by highly complex, non-linear and path-dependent system dynamics. They each have a different mix of assets and inherited economic structures which shape their future dynamics and trajectories. And, critically, they comprise collections of agents (including individuals, households, firms and public agencies). These agents not only interact with each other in complex ways, but they also respond in various different ways to changes in their economic environment. In short, they adapt and learn through trial and error and as a result, create emergent patterns and waves of innovation and development (Martin and Sunley, 2007).

This means that regional responses to system-wide economic shocks are likely to be complex and contingent. As a result, an evolutionary notion of regional economic resilience needs to be able to understand and explore both the dynamic trajectories of regional economies after a shock and the contingent behaviours of agents within it. The evolutionary perspective drawn upon here conceives of regional economic resilience as a multi-dimensional, adaptive concept embracing the risk (or vulnerability of a region's firms, industries, workers and institutions to shocks; the resistance of those entities to the impact of shocks; the ability of those entities in the region to undergo the adaptations and adjustments necessary to resume core functions and performances; and finally, the degree and nature of recoverability from the shock (Martin and Sunley, 2015). Thus, regional economic resilience may be defined as the capacity of a regional or local economy to withstand, recover from and reorganise in the face of market, competitive and environmental shocks to its developmental growth path (Bristow and Healy, 2014; Boschma, 2015; Martin and Sunley, 2015).

1.5 OVERVIEW AND ORGANISATION OF BOOK

In evolutionary terms, regional economic resilience is a complex and multidimensional concept which is challenging to operationalise. This is particularly so in the case of comparative regional analysis where shocks and stresses may affect regions at different times and in a different order of magnitude. Thus, Chapter 2 outlines the results of an innovative approach developed to measure and compare the economic resilience of European regions following the 2008–09 crisis. The method is novel in that it identifies the actual year that each European region entered into economic decline and the year in which it recovered its pre-crisis level of economic activity. In this way, it avoids assuming that all parts of Europe were affected by the economic crisis at the same time and allows for the development of a rich analysis of the shock and its spatial and temporal dynamics. It also provides a means of categorising regions according to the different phases of their resilience performance.

Whilst common trends and patterns can be discerned across the European regions, every region experienced the crisis differently. This is a product of the unique interplay of local, national and international forces within regions, together with the effect of the decisions taken by individuals, organisations and policy-makers living and working within these regions, as well as those external to them. Understanding this qualitative, contextual setting is crucial if we are to fully appreciate the forces that shape regional economic resilience outcomes. Moreover, understanding the role of agency through the decisions, behaviours and choices of key agents within regions is critical to a full understanding of their resilience outcomes (Bristow and Healy, 2014).

Thus, in order to examine the impact of the economic crisis on the ground, Chapters 3 to 8 of this volume provide detailed, qualitative case studies of the experiences of different European regions through the crisis. The cases were primarily denominated at the NUTS 2 scale, but on occasion NUTS 3 definitions were used where appropriate and were chosen to provide an analysis of regions with a mix of different experiences, circumstances and institutional arrangements. The selected cases thus capture a mix of resilience outcomes ranging from one region in Poland which managed to resist the crisis, through to two regions (in Greece and Ireland) that were still to enter a recovery phase by 2011. Taken together, these case studies provide a rich vein of comparative experience informing our understanding of the territorial dimension to economic resilience and, specifically, of what policy-makers might do to influence resilience. In particular, they provide more detailed analysis of how the various decisions and responses of key agents within regions

to the crisis played a critical role in shaping their resilience outcomes through a complex interplay with each region's particular mix of assets and inherited economic circumstances. Each chapter is thus organised to provide an introduction to the region and the effects of the crisis, and an analysis of key factors which influenced the resilience (or otherwise) of the region to the crisis. This includes a detailed focus on the role of businesses and the business environment, people and the population, key place-based characteristics, and community or societal characteristics. Each chapter also includes an assessment of the role of policy responses and potential lessons for regional and local policy-makers. Our final chapter draws together the key themes and findings from this analysis and considers the wider implications for policy efforts to develop regional economic resilience.

REFERENCES

- Aalbers, M. (2009), 'Geographies of the financial crisis', *Area*, **4** (3), 34–42.
- Aggarwal, V.K. and S.J. Evenett (2012), 'Industrial policy choice during the crisis era', *Oxford Review of Economic Policy*, **28** (2), 261–283.
- Boschma, R. (2015), 'Towards an evolutionary perspective on regional resilience', *Regional Studies*, **49** (5), 733–751.
- Bristow, G. (2010), 'Resilient regions: Re-“place”-ing regional competitiveness', *Cambridge Journal of Regions, Economy and Society*, **3** (1), 153–167.
- Bristow, G. and A. Healy (2014), 'Regional resilience: an agency perspective', *Regional Studies*, **48**, 923–935.
- Carpenter, S.R., Aalker, B.H., Anderies, M.A. and N.A. Abel (2001), 'From metaphor to measurement: resilience of what to what?', *Ecosystems*, **4**, 765–781.
- Christopherson, S., Michie, J. and P. Tyler (2010), 'Regional resilience: theoretical and empirical perspectives', *Cambridge Journal of Regions, Economy and Society*, **3** (1), 3–10.
- Davies, S. (2011), 'Regional resilience in the 2008–10 downturn: comparative evidence from European countries', *Cambridge Journal of Regions, Economy and Society*, **4** (3), 369–382.
- French, S., Leyshon, A. and N. Thrift (2009), 'A very geographical crisis: the making and breaking of the 2007–2008 financial crisis', *Cambridge Journal of Regions, Economy and Society*, **2**, 287–302.
- Gamble, Andrew (2009), *The Spectre at the Feast: Capitalist Crisis and the Politics of Recession*, Basingstoke, UK: Palgrave Macmillan.
- Hadjimichalis, C. (2011), 'Uneven geographical development and socio-spatial justice and solidarity', *European Urban and Regional Studies*, **18** (3), 254–274.
- Hadjimichalis, C. and R. Hudson (2014), 'Contemporary crisis across Europe and the crisis in regional development theories', *Regional Studies*, **48** (1), 208–218.
- Harvey, D. (2011), 'Roepke lecture on economic geography – crises, geographic disruptions and the uneven development of political responses', *Economic Geography*, **87**, 1–22.
- Hendrikse, R.P. and J.D. Sidaway (2014), 'Financial wizardry and the Golden City:

- tracking the financial crisis through Pforzheim, Germany', *Transactions of the Institute of British Geographers*, **39**, 195–208.
- International Monetary Fund (IMF) (2009), *World Economic Report*, Washington DC, USA: International Monetary Fund, January 2009.
- Martin, R. (2011), 'The local geographies of the financial crisis: from the housing bubble to economic recession and beyond', *Journal of Economic Geography*, **11** (4), 587–618.
- Martin, R. and P. Sunley (2007), 'Complexity thinking and evolutionary economic geography', *Journal of Economic Geography*, **7**, 573–602.
- Martin, R. and P. Sunley (2015), 'On the notion of regional economic resilience: conceptualisation and explanation', *Journal of Economic Geography*, **15** (1), 1–42.
- McLeod, G. (2001), 'New regionalism reconsidered: globalisation and the making of political economic space', *International Journal of Urban and Regional Research*, **25**, 804–829.
- Overbeek, H. (2012), 'Sovereign debt crisis in Euroland: roots, causes and implications for European integration', *The International Spectator*, **47** (1), 30–48.
- Smith, A. (2013), 'Europe and an inter-dependent world: uneven geo-economic and geo-political developments', *European Urban and Regional Studies*, **20** (1), 3–31.