
1. Introducing regional competitiveness and development: contemporary theories and perspectives

Robert Huggins and Piers Thompson

1.1 INTRODUCTION

The field of regional development is subject to an ever-increasing multiplicity of concepts and theories seeking to explain uneven development across regional contexts. In particular, economic geographers and spatial economists have rapidly developed the theoretical tools by which to approach such analyses. One concept and theoretical tool that has endured and remained keenly discussed since the 1990s is ‘regional competitiveness’. Indeed, the rise of the concept has led to many frameworks and applications emerging and being employed in various contexts. Such variety has been both a blessing and a curse, with the notion of the ‘competitiveness of regions’ remaining an area of contested theoretical debate, especially arguments concerning the extent to which places actually compete for resources and markets. These debates have evolved as a result of a significant forum of scholarly and practitioner-based research developing in recent years with the aim of theorizing upon and empirically measuring the competitiveness of regions.

Nevertheless, the somewhat disparate and fragmented nature of work on regional competitiveness has led to the lack of a substantive theoretical foundation underpinning the various analyses and measurement methodologies employed. The aim of this volume, therefore, is to take stock of regional competitiveness and complementary concepts as a means of presenting a state-of-the-art discussion of the contemporary theories, perspectives and empirical explanations that help make sense of the sources and determinants of the uneven development across regions. Drawing on an international field of leading scholars (see section 1.9 of this chapter for an outline of the volume), the book is assembled and organized so that readers can first learn of the theoretical underpinnings of regional competitiveness and development theory, before moving on to deeper discussions of key factors and principal elements, the emergence of allied concepts, empirical applications and the policy context.

In order to initially set the scene, this chapter presents a broad overview of the evolution of regional competitiveness thinking, and aims to make clear the connections across a variety of contemporary regional development theories. The chapter firstly introduces the regional competitiveness concept and discusses its close association with schools of endogenous growth and development theory (sections 1.2 and 1.3). Following a discussion of the potential for measuring regional competitiveness (section 1.4), the chapter turns its attention to providing an introduction to some of the contemporary theoretical perspectives on regional development, in particular the idea of regional growth systems (section 1.5) and institutions (section 1.6). Beyond this, section 1.7 introduces ‘upstream’ behavioural theories of regional development concerning both cultural and psychological

explanations, with section 1.8 discussing the concepts of regional ‘resilience’ and ‘well-being’ that have become established in tandem with competitiveness theories of development. Section 1.9 suggests how differing theoretical perspectives can be integrated, as well as providing an outline of the volume as a whole.

1.2 REGIONAL COMPETITIVENESS

It has been argued that the regional competitiveness discourse can be set within the context of theories concerning regional economic growth (Huggins et al., 2014). Furthermore, it is suggested that the concept of regional competitiveness, and models related to its measurement, can be positioned within those theories that attempt to understand and determine the means through which economic development occurs across regions.

The competitiveness of regions is generally understood to refer to the presence of conditions that both enable firms to compete in their chosen markets and enable the value these firms generate to be captured within a particular region (Begg, 1999; Huggins, 2003). Regional competitiveness, therefore, is considered to consist of the capability of a particular region to attract and maintain firms with stable or rising market shares in an activity, while maintaining stable or increasing standards of living for those who participate in it (Storper, 1997). Given this, competitiveness may vary across geographic space, as regions develop at different rates depending on the drivers of growth (Audretsch and Keilbach, 2004a).

While the competitiveness of regions is intrinsically bound to their economic performance, there exists a growing consensus that competitiveness is best measured in terms of the assets of the regional business environment (Malecki, 2004, 2007). Research in this area, especially that in the field of economic geography, can be traced back to the concept of ‘territorial competition’ which first brought to light ideas relating to regions and localities building, attracting and promoting assets through bottom-up endogenous efforts as a means of gaining and sustaining a foothold within an internationalizing spatial economic environment (Cheshire and Gordon, 1995). These assets include the level of human capital, the degree of innovative capacity, and the quality of the local infrastructure (see Chapter 17 of this volume by Turok for an analysis of the role of infrastructure in the context of regional competitiveness in the global South) – all of which affect the propensity to achieve competitive advantage in leading-edge and growing sectors of activity. The influence these assets and other externalities can have on firm competitiveness, such as the ability of regions to attract creative and innovative people or provide high-quality cultural facilities, are all important features of regional competitive advantage (Kitson et al., 2004). In other words, competitiveness is concerned with creativity, knowledge, and environmental conditions, rather than being purely based on accumulated wealth (Huggins, 2003).

As Martin (2005) outlines, concern with competitiveness has filtered down to the regional, urban and local levels, particularly the role of regionally based policy interventions in helping to improve competitiveness. In many advanced nations, these interventions form part of a strategic framework to improve productive and innovative performance. From this policy perspective, the key drivers of regional competitiveness are usually considered to consist of the enhancement of knowledge and creativity through

clusters (Porter, 1998) or networks (Huggins and Izushi, 2007) of firms and complementary organizations. This perspective resembles the views of the endogenous school of regional development, which argues that regions themselves act as an organizational form of coordination facilitating sustainable competitive advantage (Courlet and Soulage, 1995; Maillat, 1998; Lawson and Lorenz, 1999; Garofoli, 2002). In Chapter 11 of this volume, Huggins and Thompson argue that these inter-organizational network forms of coordination are a key capital resource impacting upon regional competitiveness and growth trajectories.

Despite these developments, both the concept and the measurement of competitiveness at a regional level remain contested areas of analysis, with some suggesting that 'competitiveness league tables are inevitably seductive for regional development agencies and the media keen to absorb "quick and dirty" comparative measures of regional economic performance' (Bristow, 2005, p. 294). When conceptualizing regional competitiveness, it is crucial to distinguish it from the concept of competition. Certainly, by writing in terms of competitiveness, one inevitably invites the reader to think of head-to-head conflict. Yet, the concept of competitiveness at the national or regional level is only competitive in the sense that it refers to the presence of conditions that will enable firms to compete in local, national and international markets. Regions 'compete' in trying to provide the best platform for operating at high levels of productivity, but this is very different from the kind of direct competition undertaken by firms. It is the zero-sum conceptualization of regional competitiveness that often leads to the premise that there must inevitably be both winners and losers (Bristow, 2005).

Malecki (2004) usefully distinguishes between low-road and high-road competition. As he points out, regions may compete on the basis of low wages, docile labour and low taxes, but such low-road competition will simply perpetuate an inability to upgrade to an economic base with higher skills and wages. Conversely, competition on the high road involving, for example, knowledge policies aimed at promoting entrepreneurship and knowledge-based economic development can lead to positive-sum outcomes that bring benefits to all regional economic and social activities (Leborgne and Lipietz, 1988; Malecki, 2004). As Fagerberg and Srholec find in Chapter 5 of this volume, specialization in knowledge-based activities is normally associated with regional economic development, as well as the capabilities underpinning such development. For regions, therefore, it is important that competitiveness not only leads to increasing market shares in a particular industry but also raises, or at least maintains, the standard of living, as this should be the end goal of competitive activity (Storper, 1997; Aiginger, 2006).

Some scholars have suggested that although policymakers everywhere are appropriating the term 'regional competitiveness', it remains 'complex and contentious', and that 'we are far from a consensus on what is meant by the term' (Kitson et al., 2004, p. 992). Nevertheless, the regional entrepreneurial, knowledge and innovation capacity of regions are generally considered to be key factors underpinning the future economic development and growth trajectory of regions. Indeed, contemporary regional development policies such as the European Union's promotion of regional smart specialization strategies – see Chapters 24 and 25 of this volume by McCann and Ortega-Argilés and Aranguren et al., respectively, for reviews of the smart specialization policy agenda – remain deeply grounded in building regional capacities and capabilities in the very factors identified by the regional competitiveness discourse. In particular it is the link between

the knowledge, entrepreneurial, and innovation bases of regions and their growth capacity and capability that is at the heart of the concept of competitiveness. In this respect, regional competitiveness concepts are strongly tied to the lineage of Schumpeterian theory (Schumpeter, 1934) – or ‘Schumpeter’s competitiveness’, as it has been termed (Beugelsdijk and Maseland, 2011) – as well as more contemporary theories relating to the endogenous nature of economic growth.

The focus on regions reflects the growing consensus that they are the primary spatial units that ‘compete’ to attract investment, and it is at the regional level that knowledge is circulated and transferred, resulting in agglomerations, or clusters, of industrial and service sector enterprises. This growing acknowledgement of the region’s role as a key spatial unit of organization has led to attention turning to competitiveness at a more regional, than national, level. From this spatial perspective, the work of Michael Porter was of major importance in taking a micro-level understanding of the conditions determining firm competitiveness, such as the capacity to innovate, and applying it to the territorial unit – be it a city, region or nation (see Huggins and Izushi, 2011, and McCann and Ortega-Argilés in Chapter 24 of this volume, for a fuller explication of the Porterian origins of competitiveness concept). It is Porter’s (2000) notion of the microeconomic determinants of prosperity and wealth generation, as opposed to determinants relating to monetary exchange rates and the like, that is at the heart of the concept of regional competitiveness. Over time, Porter (1998, 2000) came to the view that many of these forces were not generic or distributed evenly across nations, but ‘clustered’ within particular regions within national economies. To this extent, the origins of Porter’s (1990) hugely influential *The Competitive Advantage of Nations* can be considered to be rooted in spatially oriented economic studies dating back to Alfred Marshall. As Jacobsen (2015, p. 50) states:

In the spirit of Marshall’s (1919 [1990]) *Industry and Trade*, Porter’s *Competitive Advantage of Nations* is a compelling study of successful industries in various countries. Competitive advantage is the result of a localized, indeed clustering, process that is knowledge-generating and innovation-oriented involving institutions (including government), culture and values, and history, in addition to economic structures.

Porter (1998) particularly focused upon a central element of a diamond framework – the cluster – and applied it to regional economic development; a subject long studied by economic geographers, regional scientists and local development planners. Following the publication by Porter of *The Competitive Advantage of Nations*, the importance of the concept of competitiveness increased rapidly, with the issues surrounding it becoming, at the same time, more empirically refined and theoretically complex (Porter, 1990; Huggins and Izushi, 2011). Porter (1990) first defined competitiveness at a national level as an outcome of a nation’s ability to innovate to achieve, or maintain, an advantageous position over other nations in a number of key industrial sectors. Porter (1990) linked national competitiveness to productivity and, as indicated above, a nation’s ability to innovate. However, he also became aware that regions within nations are increasingly considered to be an important source of economic development and organization in a globalized economy (Porter, 2000; Huggins et al., 2014).

An issue raised by Martin and Sunley (2011) is that Porter’s cluster model and views on regional competitive advantage do not assign due justice to already advanced thinking in

the fields of economic geography and spatial economics. To some extent, this is the case, and it is clear that when one scrutinizes the cluster model, it bears a close similarity to theories that have emerged within economic geography. For example, there are clear parallels between the work of economic geographers on theories of endogenous development and the cluster concept. The principles of the endogenous development school of regions are rooted in the role that factors such as collective learning and cooperative behaviour play in the establishment of an innovative milieu. As Garofoli (2002) argues, endogenous development primarily concerns the capacity to innovate and produce 'collective intelligence' in a localized environment, which explicitly recognizes the relevance of the spillover, diffusion, accumulation, creation and internalization of knowledge.

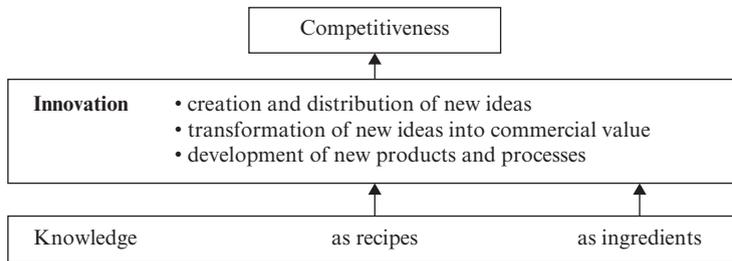
1.3 ECONOMIC GROWTH AND DEVELOPMENT

Regional competitiveness models are usually implicitly constructed in the lineage of endogenous growth frameworks whereby deliberate investments in factors such as human capital and knowledge are considered to be key drivers of growth differentials. Regional competitiveness, therefore, is defined by some scholars as the difference in the rate of economic development across regions and the capacity and capability of regions to achieve future economic growth relative to other regions at a similar stage of economic development (Huggins et al., 2014). Indeed, the success of regions will clearly be related to their capacity and capability to achieve economic growth, and understanding how and why such growth occurs is central to a number of research streams. For instance, research in spatial economics seeks to understand the role of agglomeration effects, trade costs, and other regionalization and urbanization factors (Storper, 2010).

More generally, contributions from economic geography and spatial economics have become increasingly concerned with understanding and demonstrating the regional micro-foundations of macroeconomic growth models (Capello, 2011; Stimson et al., 2011). As indicated above, endogenous growth theory, in particular, has focused on the role of human capital, knowledge and innovation in regional growth processes, with a need to better understand the mechanisms underlying regional growth patterns identified as a key priority in aiding effective economic development policy (Stimson et al., 2011; Duranton and Puga, 2013).

Endogenous growth models make clear that economic growth is considered to be driven by technological change arising from intentional investment decisions made by profit-maximizing agents, with the stock of human and research capital – and investments in such capital – determining the rate of growth (Romer, 1990; Ha and Howitt, 2007). In this respect, regional competitiveness models possess many similarities, with the key difference being that output measures are transferred to the right-hand side of competitiveness equations, with the left-hand side being a measure of overall competitiveness. This makes logical sense as endogenous growth models are seeking to explain the factors underlying past output growth. Competitiveness models, on the other hand, are seeking to measure the capacity and capability for future output growth, with the factors used to explain this encompassing the explanatory factors adopted by growth theorists as well as current rates of output and productivity.

In relation to competitiveness and endogenous growth theories, knowledge refers to



Source: Huggins et al. (2014).

Figure 1.1 Relationship between competitiveness, innovation and knowledge

the cumulative stock of information and skills concerned with connecting new ideas with commercial values, developing new products and processes, and, therefore, doing business in a new way. This may be called knowledge for innovation or innovative knowledge. Whereas innovation is a process, knowledge consists of the recipes and the ingredients to be processed. Therefore, as illustrated by Figure 1.1, the relationship between the concepts of knowledge, innovation and competitiveness are closely associated and inter-linked. For Porter (1998), the localized productivity advantages of agglomeration, such as access to specialized inputs, employees, information and institutions, will encourage firms to cluster, and reinforce clusters over time, as new firms become attracted by the same advantages of concentration. Many of the factors that increase current productivity will also encourage innovation within the cluster and, therefore, increase the productivity growth of firms. For example, access to specialized information via personal relationships will, over time, provide localized advantages for firms in perceiving new technological opportunities and new buyer needs. Therefore, as traditional forms of advantage become nullified, competitive advantages lying outside of firms – that is, in the business environment in which they are located – increase in importance.

Endogenous capital accumulation models are to some extent allied to contributions related to the New Economic Geography (Krugman, 1991), which like antecedents such as models of circular and cumulative causation (Hirschman, 1958; Myrdal, 1957; Kaldor, 1957) emphasize the notion of increasing returns from capital investment (Storper and Scott, 2009). Similarly, work on regional competitiveness has sought to pinpoint the ‘territorial capital’ of regions, which covers the wider set of natural, human, relational and organizational assets underpinning economic growth (Camagni, 2009; Camagni and Capello, 2013; Huggins et al., 2014).

Such a conceptualization of the factors underlying growth is consistent with wider views from the field of economics, whereby economic growth is dependent on capital accumulation (Duranton and Puga, 2014). In recent work, however, this has changed from traditional neoclassical conceptions where the primary inputs are seen as physical capital and labour (Solow, 1956, 1957; Swan, 1956), to those relating to endogenous growth where human capital and knowledge play a key role (Romer, 1986, 1990). Within this framework, trade is explained through the comparative advantage associated with the availability of the factors of production, rather than competition per se (Kitson et al., 2004). This makes such an explanation of growth closer to a Schumpeterian perspective

that highlights the role of intellectual capital, principally concerning the creation and accumulation of knowledge as the key driver of growth differentials (Boschma and Martin, 2010; Cooke et al., 2011).

The conclusion of earlier neoclassical models was that growth is largely determined exogenously by the advancement of technology. As discussed by Camagni in this *Handbook* (Chapter 10), later studies have accounted for infrastructure and energy inputs (Biehl, 1986), types of labour (Romer, 1986), social capital (Putnam, 1993), information (Capello, 1994) and knowledge (De Groot et al., 2001). As indicated above, the more recent concept of territorial capital considers not just tangible but also intangible locally bounded assets, amenities and conditions that enhance growth through increasing efficiency (Camagni, Chapter 10 in this volume). This reduces the unexplained component of regional development, but retains the focus on the single outcome associated with total factor productivity, which it can be argued is an indicator of 'revealed competitiveness' (Gardiner et al., 2004). Although there are considerable issues with the measurement of revealed competitiveness across sectors (Kitson et al., 2004), van Oort and Thissen in Chapter 8 of this *Handbook* employ a quantitative methodology for determining revealed competitiveness based on inter-regional market structures and local specialization. From a more qualitative perspective, Shen in Chapter 20 outlines the evolution of inter-regional processes of competition and cooperation from an analysis of the highly dynamic relationship existing between the urban regions of Hong Kong and Shenzhen.

The consequences of neoclassical-based models is that with similar population growth rates and technological progress diminishing returns from investments in physical capital, places (nations or regions) would converge on the same steady state growth path (Barro and Sala-i-Martin, 1995). However, as covered in detail by Harris in Chapter 4 in this volume, limited evidence for such convergence is found, making the endogenous growth model more appropriate. In addition, where there is no convergence in growth rates, attracting sticky labour and capital becomes important (Cheshire and Malecki, 2004). This opens the door to investigate those factors that have helped places to maintain their advantage over others.

As indicated above, work that considers output growth to be associated with previous growth has developed in parallel to the neoclassical growth work, especially the 'cumulative causation' models developed by Myrdal (1957) and Hirschman (1958). These were examined in the regional context by Kaldor (1970) and formalized by Dixon and Thirlwall (1975). In these studies, rather than diminishing returns to scale, increasing returns to scale are assumed, leading to virtuous circles of growth for regions. As Harris shows in Chapter 4 in this volume, this yields results where labour productivity changes are functions of output growth through 'learning-by-doing' effects. Crucially, this means that regional output, rather than just being the outcome of competitiveness, instead becomes a component of regional competitiveness.

Krugman (2005) argues that whilst endowments of the factors of production may remain quite stable between nations where there is limited mobility of capital and labour this is not the case for regions. Here higher levels of total factor productivity (TFP) may encourage inward flows of capital and labour, increasing the disparities with less productive regions. This can even result in a vicious cycle whereby less prosperous regions continue to lose their factors of production and thus competitiveness (Camagni, 2003).

Although recognizing the existence of uneven development across regions, differing

schools of thought exist as to the reasons for this. Michael Storper in Chapter 2 of this *Handbook* illustrates this clearly when contrasting the assumptions and implications of the New Economic Geography (NEG) (Krugman, 1991) and the New Neoclassical Urban Economics (NNUE). In the NEG, scale economies are responsible for firms and labour being concentrated spatially. This is driven by trade costs which encourage both consumers and firms to converge on places where access to markets, inputs and products is greater. Where capital (firms) is mobile it will seek out large 'home markets' to reduce trade costs. This effect is even greater when labour is also mobile, as it migrates to those regions that have developed clusters to benefit from the existing 'home market' effects, leading to processes of cumulative causation (Harris, Chapter 4 of this volume). Here the agglomeration process is perceived to be an accident of history.

NNUE, on the other hand, considers the locational choices of firms and individuals. In the case of the former, locations are chosen to raise productivity. Individuals follow their preferences for income, paid and non-monetized amenities. This means that rising incomes may be offset by rising prices, particularly those relating to housing, leading to individuals seeking cheaper housing in other locations, and similarly firms seeking lower cost bases. This means that regions can both diverge and converge over time (Cerina and Mureddu, 2014). What both groups of theories pay less attention to are cases where large changes take place due to new innovations that provide opportunities for previously less successful locations (Scott and Storper, 1987) or where pre-existing institutions may hinder previously successful regions from exploiting these innovations (Chinitz, 1961; Boschma and Frenken, 2006; Boschma and Martin, 2007). Instead, it is assumed that such differences will largely disappear as outcomes revert to the mean.

1.4 MEASURING COMPETITIVENESS

The first studies concentrating on measuring competitiveness often focused on the export performance of a nation's or region's firms (Anderton and Dunnett, 1987; Buckley et al., 1988). Based on the firm-level work that assumes perfect competition, the initial focus was on costs. However, recognizing that this is a narrow conceptualization, later work placed less significance on input costs, with a view that Aiginger and Firgo describe in Chapter 7 in this volume as the 'enlightened version', allowing for rising productivity to offset rising costs. In some cases productivity was the only measure of competitiveness considered (Porter, 1990; Kohler, 2006). Early studies link national competitiveness to productivity, and a country's ability to innovate (Porter, 1990). However, as suggested earlier, attention has turned to competitiveness at a more local or regional level, particularly as this is where policy support can be most effective in generating the appropriate social capital and institutional factors that increase productivity (Scott, 1998).

For any location, it is important that competitiveness not only leads to an increasing market share of a particular industry, but also raises or at least maintains standards of living, since increasing the well-being of the population is the ultimate objective of competitive activity (Storper, 1997; Aiginger, 2006). This means that whilst increasing output per capita is important in terms of improving competitiveness, this must not be at the expense of the population's welfare. For instance, it is possible to improve productivity by cutting back on labour inputs and competing on price through lower remuneration.

However, the former does not increase the level of welfare enjoyed, although an economy may be able to improve its balance of trade; whilst the second may result in a race to the bottom. Fundamentally, neither route is a long-term method of improving competitiveness or well-being. Instead, competitiveness relates to the ability of an economy to provide its population with sustainable high and rising standards of living and high rates of employment (European Commission, 2001). This emphasis on sustainable competitiveness is particularly marked in work that seeks to measure the competitiveness of urban regions and cities. Building on earlier work on urban competitiveness by Kresl (1995), Ni and Wang in Chapter 19 of this volume present a framework by which to measure the sustainable competitiveness of 500 cities from across the globe. Furthermore, in their examination of the competitiveness of more than 150 cities in Europe, Sáez and Perriáñez in Chapter 21 introduce a number of measures of ‘health’ alongside the more traditional innovation and knowledge indicators associated with regional competitiveness.

When it comes to measuring competitiveness, however, there is a degree of confusion as some studies focus on those inputs or competencies that are associated with achieving the aims set out above, whilst others focus on the outcomes to capture the degree of competitiveness present or revealed. In many cases, a mixture of the two are captured in an attempt to recognize both how a region is performing currently and will perform in the future (Huggins, 2003; Huggins et al., 2014; Annoni and Dijkstra, Chapter 3 of this volume). However, this can cause problems as Aiginger and Firgo (Chapter 7 of this volume) highlight when less attention is paid to how these measures affect one another (Boschma, 2004; Thissen et al., 2013). In order to provide more theoretical clarity with regard to measures of competitiveness, Aiginger (2006) offers two different perspectives on the definition of competitiveness to try to reduce some of the confusion in conceptualizing and measuring competitiveness. The first type of competitiveness he describes as ‘outcome competitiveness’, where competitiveness is measured as some form of welfare function:

$$\textit{Competitiveness} \equiv W(Y, S, E) \quad (1.1)$$

where:

Y is income per capita;

S are social and distributional indicators;

E are ecological indicators.

Here gross domestic product (GDP) per capita reflects average wealth to indicate how successful an economy has been in utilizing its inputs to raise the living standards of its residents. This acknowledgement that competitiveness should lead to increased standards of living is incorporated in studies such as Kitson et al. (2004) and Porter (2007). However, to more deeply capture the welfare benefits for the population, social and distributional indicators are included. This means that whilst income per capita may be included, employment based measures are also considered (Stimson et al., 2009).

It is important that well-being is incorporated into any measure of competitiveness, but it is not clear what measure of welfare should be used. The most popular are employment and income, as these are relatively easy to measure (Delgado et al., 2012). This is associated with the distinction between ‘low-road’ and ‘high-road’ competitiveness (Malecki,

2004; Chapter 6 of this volume). In the former, competitiveness may be achieved through cost cutting and shedding labour, whilst the latter acknowledges that the population of the region should be the beneficiaries. Ecological indicators will capture non-pecuniary costs and benefits.

Studies such as Aiginger and Vogel (2015) have further developed this concept to focus on 'beyond GDP' outcome measures even more strongly. As outlined in this *Handbook* and elsewhere, this reflects a growing recognition that 'beyond GDP' measures of welfare may be more appropriate given the limitations of GDP in terms of capturing welfare as enjoyed by those living in a locality (Aiginger and Firgo, Chapter 7 of this volume; Stiglitz et al., 2009). This means that rather than considering GDP or GDP per capita and employment, outcome competitiveness is captured by income, social and ecological pillars; but also takes into account measures such as expected life, subjective well-being or happiness, and work–life balance considerations. The focus remains on a place's ability to deliver on these beyond GDP goals not only in the present, but in a sustainable ongoing manner (Aiginger et al., 2013). Building on this, Fratesi, in Chapter 9 of this *Handbook*, advocates the use of approaches such as dynamic systems that allow the intertemporal influences on output competitiveness measures to be accounted for as well as accommodating relevant feedbacks and loops.

Others focus on the inputs associated with desirable social outcomes. This means that rather than looking at a static advantage, there should be a more dynamic focus considering how advantage can be renewed over time (Fratesi, Chapter 9 of this volume). This second type of competitiveness is described as process or input competitiveness (Aiginger and Firgo, Chapter 7 of this volume), which is related to the production function linking inputs to output (generally in terms of income per capita), with inputs including a wider range than just physical capital and labour:

$$\text{Competitiveness} = F(K, L, TFP, C, I, T) \quad (1.2)$$

where:

K is physical capital;

L is labour;

TFP is total factor productivity representing technical progress;

C are capabilities;

I are institutional effects;

T is trust.

A large number of alternative measures of competitiveness have been developed, often attempting to incorporate the input factors associated with process competitiveness, output factors measuring output competitiveness, and outcome factors associated with welfare of the population. However, what measures are included varies according to the availability of data at a local scale and the ability to update these regularly (Huggins, 2003). The pyramid model, which is updated in Chapter 18 of this volume by Lengyel, outlines how input or process competitiveness links to varied regional outputs (revealed competitiveness) and translates into improved standards of living (Lengyel, 2000, 2004, 2009; Gardiner et al., 2004).

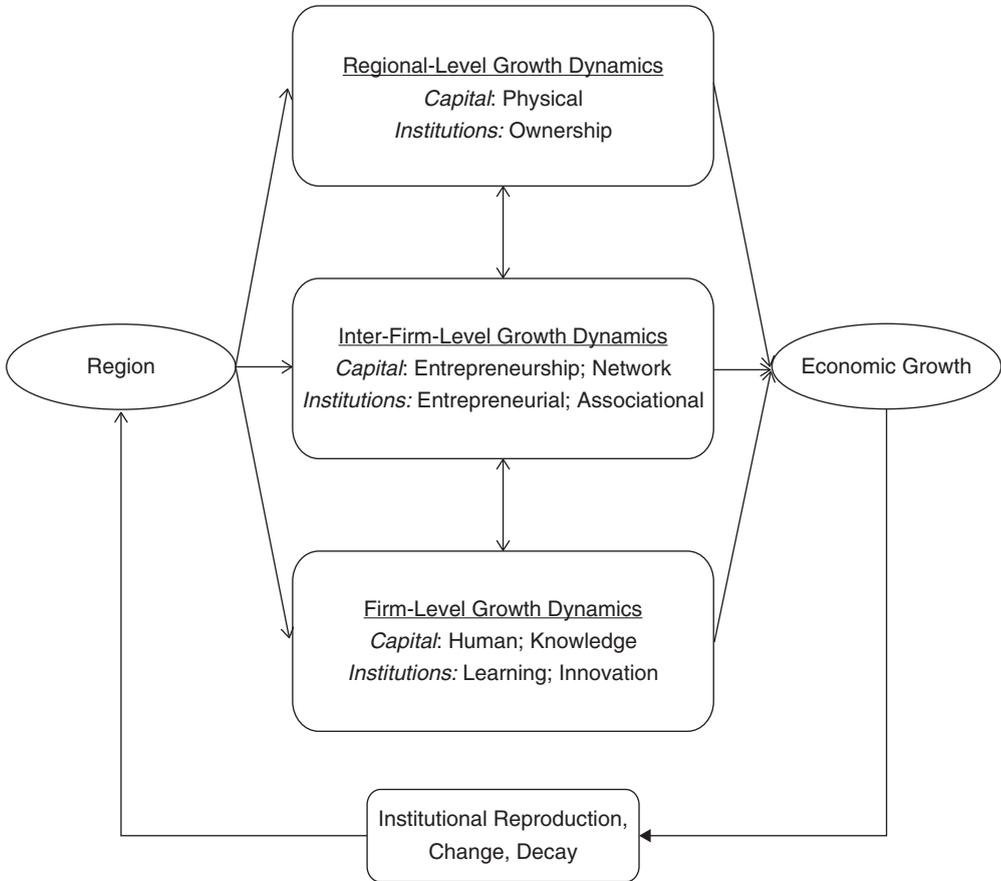
1.5 REGIONAL GROWTH SYSTEMS

As discussed above, over a number of years the identification of the determinants of economic growth has emerged as one of the most intriguing streams of inquiry in the fields of economic geography and spatial economies. As Lucas (1988, p. 5) put it, 'Once you start thinking about [growth] it is difficult to think about anything else'. As a result, regional growth theory has increasingly drawn upon the notion that the growth of regions is endogenous, stemming from a region's capability to invest in a range of intangible assets, in particular human capital (Lucas, 1988), innovation (Romer, 1986, 1990), as well as more contemporary factors such as entrepreneurship capital (Audretsch and Keilbach, 2004a, 2004b, 2008) and network capital (Huggins and Thompson, 2014a, 2015a). As suggested earlier, the key argument of regional endogenous growth theory is that these assets provide regions with the capability to facilitate long-term growth (Johansson et al., 2001; Capello and Nijkamp, 2009; Capello, 2011; Stimson et al., 2011). Therefore, long-term differentials in growth across regions will emerge as a result of differences in the structure of their economic systems, especially their endowment of these assets and the preferences of economic actors.

Alongside the endogenous capital accumulation model of regional growth, however, an emerging field of economic study has sought to cut into the growth debate at a different level by placing the concepts of institutions as the central source for understanding uneven regional development and growth differentials (Farole et al., 2011; Rodríguez-Pose, 2013; Tomaney, 2014). Whilst endogenous capital accumulation theories of growth are based on preferences, endowment, resource allocation and intentional investment decisions (Romer, 1986, 1990), institutional theories of growth are based on constraints, incentives and organizational arrangements (North, 2005; Acemoglu and Robinson, 2012). Although these two theoretical positions are usually considered as distinctive explanations of economic growth differences, it is interesting to consider the extent to which they may interact, given that both theories can be considered to be endogenous in nature (Acemoglu et al., 2005; Farole et al., 2011). For example, preferences and investment decisions may be shaped by prevailing institutions, whilst the availability and accumulation of capital may shape incentive structures and organizational arrangements. Furthermore, an institutional approach facilitates a consideration of the ownership structure of stocks of capital.

Recent work stemming for the regional competitiveness discourse has sought to develop a more transparent link between institutional and capital accumulation theories of growth from the viewpoint of analysing differentials across regions (Huggins, 2016). It seeks to establish a theoretical framework that draws on the institutional and capital accumulation theories of growth as a means of developing a systems-based conceptualization of regional growth. In this context, regional economies are conceptualized as growth systems through which different forms of institutions are associated with different forms of capital accumulation. In this model, the capital drivers of growth are not merely the result of preferences and existing capital endowments, but are mediated by a set of institutional factors.

As shown by Figure 1.2, such a model builds on the existing acknowledgement that both capital and institutional factors influence the nature, quality and performance of: (1) firm-level growth dynamics – which concerns the role of human capital and knowledge



Source: Adapted from Huggins (2016).

Figure 1.2 *Regional growth systems: key components*

capital and the learning and innovation institutions that constrain or incentivize the accumulation of these forms of capital; (2) inter-firm-level growth dynamics – which concerns the transactions and interactions between firms through the markets and networks they form, and the role of entrepreneurship capital and entrepreneurial institutions in market processes, and network capital and associational institutions in network formation, principally relating to knowledge flows; and (3) regional-level growth dynamics – which relates to the overall governance of regional political economies, especially with regard to the institutions of ownership and physical capital (Huggins, 2016).

The approach adopted here echoes the notion of regions and cities as ‘Schumpeterian hubs’ for recombining capital in order to generate innovation (Veltz, 2004; Storper and Manville, 2006). Merely investing in such capital, however, may not be enough to secure high-growth regional systems (Storper, 2013). For example, in Chapter 16 of this *Handbook*, Rodríguez-Pose and Wilkie clearly show that investments in knowledge capital alone are not necessarily associated with improved regional competitiveness and growth.

Therefore, although capital accumulation may be able to partly explain economic growth, institutions in the form of the incentives and constraints relating to the organization of production and the capability to accumulate capital are potentially more fundamental determinants of economic growth (Helpman, 2004; Tomaney, 2014). Given the increasing inclusion of institutions within theories of regional competitiveness and contemporary economic development, it is important to conceptualize in more depth their potential nature and construction.

1.6 INSTITUTIONS

Somewhat contrary to the capital accumulation model of regional growth, institutional theorists argue that differences in growth and prosperity across nations, cities and regions is more fundamentally related to the type, stage of development and efficiency of the economic and political institutions that underpin economic systems (Acemoglu and Robinson, 2012; Farole et al., 2011; Henderson and Wang, 2007; Rodríguez-Pose, 2013; Tomaney, 2014). Within this paradigm, the prevailing view is that differences in ‘the rules of the game’ across economic systems are a key driver of growth differentials (Rodrik, 2000). Implicit, although not always explicit, within this institutional theory of growth is that more efficient institutions will facilitate the development of the conditions that allow the forms of capital accumulation associated with endogenous theories of growth to flourish.

In general, institutions are defined as being the humanly devised constraints that structure interaction covering both formal (*de jure* – rules, laws, constitutions) and informal (*de facto* – norms, behaviour, conventions) constraints and their enforcement, which then define the incentive structure of societies and their economies (North, 2005). Institutions, especially those of a more formal nature, can be further categorized as: (1) economic institutions, such as individual property rights, contracts, patent laws and the like; or (2) political institutions, which generally refer to the extent to which democratic political rules underlie the nature of territorial governance (Acemoglu et al., 2005). Institutions can also be categorized according to whether they are innately ‘extractive’ or ‘inclusive’, with extractive institutions tending to be those which result in rent-seeking behaviour (Acemoglu and Robinson, 2012).

Two core streams of institutional literature have emerged in recent years: that associated with economic and political science (North, 1990), and that drawing on sociology and organizational theory (DiMaggio and Powell, 1983, 1991). The former stream is where institutions act through rules, procedures and agreements, whilst the latter views individuals as making decisions based on heuristics associated with conventions linked to shared cultures. Scott’s (2007) three categories of institutional forces recognizes a similar division, with the regulative pillar capturing rules of the game, monitoring and enforcement; the normative pillar drawing on socially accepted norms within professional and organizational interaction; and the third being a more culturally orientated cognitive pillar. The first pillar can be seen to be related to more formal institutions, with the second and third pillars associated more with the concept of informal institutions.

The influential ‘varieties of capitalism’ approach to institutional evolution argues that differing institutions develop to match the activities undertaken in an economy (Hall and

Soskice, 2001). In other words, institutions that dominate an area are partly created by the activities undertaken within the area. For example, this literature normally regards most continental European economies as coordinated market economies (CMEs), whereby strategic interaction between firms and other actors such as trade unions is used to coordinate activities. The United Kingdom (UK) and other Anglo-Saxon nations are perceived to possess more liberal market economies (LMEs), whereby markets coordinate the activities of firms and other actors. In their recent review, Acemoglu and Robinson (2012) advocate that the institutions of democratic capitalism are the principal means of achieving prosperity, which could be perceived as a perspective that is ethnocentrically skewed toward the cultural values of nations with a system of relatively strong democratic capitalism. However, it is not necessarily the case that capitalist economic systems are fixed within a nation, with some scholars suggesting the existence of regional varieties of capitalism within nation states (Crouch et al., 2009).

In effect, institutions, in the shape of both the tangible and intangible characteristics constituting the political economy of regions, and the functioning of their economic systems, are either enablers or constrainers on growth. Institutional enablers are the conditions and factors that facilitate growth by creating an environment that is conducive for firms to operate at their highest level. These enablers principally encompass the institutions that support economic actors in taking advantage of perceived opportunities. While some of these institutions are fixed across nations – such as law, regulation and property rights – others may be subject to regional differentiation. In this sense, regional institutions can be considered to consist of the underlying rules of the game relating to factors such as the incentives to: save and invest; embrace competition, innovation and technological development; engage in education and learning; engage in entrepreneurship; and participate in networks; along with the presence and structure of property ownership and the provision of public services. Enabling institutions will take account of regional contextual factors, with complementary institutions developing through repeated interactions. Constraining institutions may limit the directions in which a regional economy can develop in the future. Therefore, choices that push places towards the development of a particular set of institutions over another may influence growth in the long term (Huggins et al., 2014).

Regions with institutions conducive to enabling economic development are likely to increase their growth by attracting investment, skills and talent. Some examples include: local business regulations that allow commercial activity to be efficient; the ease of doing business; local government initiatives; and ultimately, the perceptions of businesses and individuals in a region (Crouch et al., 2009; Rodríguez-Pose, 2013). In order to better understand the nature of regional economic systems and their growth performance, it appears useful to add these institutional factors to such system frameworks, as sketched out in Figure 1.2. More specifically, it would seem appropriate to consider the institutions that facilitate or impede the extent to which the capital inputs of regional economic systems are effectively transferred into high-value outcomes. Similarly, there is a need to consider how institutions enable the transfer of economic outputs into high-grade outcomes.

There are clearly different routes to achieving growth and prosperity (Kitson et al., 2004; Malecki, 2007). Some of these routes are likely to be more attractive for some regions than others. However, whether or not regions are truly free to choose their

economic development paths, or whether past history dictates the future potential of an economy, is another question. The evolutionary school of economic geography suggests that regional development and associated institutions are likely to be determined, at least to some extent, by past histories (Boschma and Frenken, 2006; Boschma and Martin, 2010; Martin and Sunley, 2006). Regions that are tightly bound in their structures and networks may not be able to move to alternative development paths, so when hit by exogenous shocks, they are unable to escape from a declining growth spiral (Huggins and Izushi, 2007; Martin and Sunley, 2006). These factors have ramifications for regions, especially in the long term, as activities taken to increase growth may have hidden costs in terms of the welfare of the population, which may compromise future growth, particularly if key workers cannot be retained (Florida et al., 2011; Mellander et al., 2011). The evolutionary nature of regional economic development may further limit a region's ability to move away from industries associated with providing a low contribution to growth.

As already indicated, institutional theorists suggest that a key means of escaping a downward evolutionary economic trajectory is through the development of institutions that facilitate effective economic development (Acemoglu and Robinson, 2012; Acemoglu et al., 2005; North, 1990, 2005). Institutions also play a role in ensuring that the wealth underpinning standards of living replenishes the inputs of regional economic systems. In a series of works, Rodríguez-Pose, Storper and their colleagues (Farole et al., 2011; Rodríguez-Pose, 2013; Rodríguez-Pose and Storper, 2006; Storper, 2005, 2008) have developed the framework of community (which represents a spatially localized notion of institutions) and society (which, conversely, represents spatially broader institutions) in order to better place institutionalist approaches central to regional economic development. In the process, this framework highlights the importance of geographical context when examining institutional models of growth. Both community and society are considered to influence economic development through the expectations and incentives provided to economic agents (Farole et al., 2011). However, as the authors acknowledge, how these effects vary across regions is little understood, excepting that community and society effects are likely to reinforce one another (Farole et al., 2011).

Contributions from new institutional economics have further recognized the temporal nature of institutions, with it being argued that embedded informal institutions are likely to endure far longer than those associated with more formal governance mechanisms (Rafiqui, 2009; Williamson, 2000). In general, institutions introduced indigenously, and which evolve endogenously, are the most likely to persist over time, and are likely to be relatively 'sticky' as they will have evolved from pre-existing institutions and beliefs (Boettke et al., 2008; Boettke and Fink, 2011). Institutions exogenously emerging from, for example, national government, are likely to be less sticky, even less so in the case of institutions and institutional change emerging from supranational governments (Boettke and Fink, 2011). This emphasizes the need to move beyond the notion of institutional 'thickness' (Amin and Thrift, 1995) to also consider institutional 'stickiness' (Boettke and Fink, 2011). Ketels, in Chapter 22 of this volume, pays particular attention to the role of these sticky regional government institutions in shaping their local economic environments and contexts to promote competitiveness. Similarly, in Chapter 23, Audretsch et al. highlight the requirement for regions to be strategically managed in order to address similar issues related to market failure and industrial structure that compel firms to strategically manage their resources.

Regional institutions can be considered to consist of those that are spatially either inward- or outward- looking, with such institutions sometimes being in conflict with formal national-level institutions, resulting in unintended consequences (Thornton, 1999). Where there is conflict between formal and informal institutions, North (1990) suggests that informal institutions determine underlying behaviour to the greatest extent. One perspective is that informal and formal institutions may be substitutes for one another, and strong regional community cultures may develop to fulfil the role of weak ineffective formal institutions (Durlauf and Fafchamps, 2003). This means that where formal institutions no longer support existing activities within a region, it is not beyond the realms of possibility that the prevailing informal institutions may actually strengthen to fill this gap (Huggins and Thompson, 2015b).

1.7 BEHAVIOURAL THEORIES OF REGIONAL DEVELOPMENT

In general, regional development theory has become rooted in explanations based on the location, agglomeration and organization of firms, industries and capital (Maskell, 1998; Fritsch and Mueller, 2004; Gordon and McCann, 2005). Contemporary economic geography theory, however, is moving toward a (re)turn to addressing the role of individual and collective behaviour in determining regional development outcomes (Davidsson and Wiklund, 1997; Francois and Zbojnik, 2005; Jokela, 2009; Obschonka et al., 2013). A number of concepts relating to the behaviour of individuals and groups of individuals have taken an increasingly central role in shaping an understanding of why some places are better able to generate higher rates of development and growth, and avoid the low-road development trajectories and associated higher rates of inequality found in weaker regions (Streek, 1991; Tabellini, 2010; Tubadji, 2013; Soto-Oñate, 2016). Based on thinking from behavioural economics, some economic geographers suggest that individual decision-making results from local influences experienced through situations. Such ‘situations’ equate to the dominant cultural traits embedded within the local communities where these ‘influences’ are formed (Storper, 2013).

Behavioural economics concerns the integration of psychological theories of behaviour as a means of explaining economic action (Mullainathan and Thaler, 2000; Camerer and Loewenstein, 2004; Borghans et al., 2008; Cartwright, 2014). Such theories have increasingly shown the limits of rational-choice theories in explaining economic, as well as social, action and the underlying decision-making processes of individuals in determining such action (Hodgson, 2013). Drawing on Simon’s (1955, 1982) notion of ‘bounded rationality’, behavioural economics suggests that the minds of individuals are required to be understood in terms of the environmental context in which they have evolved, resulting in restrictions to human information processing, due to limits in knowledge and computational capacity (Kahneman, 2003).

Similarly, the rise in importance given to cultural values in regional development theory has led to the emergence of a ‘new sociology of development’ that entwines the role of geography with factors relating to individual and collective behaviour (Sachs, 2000). As Clark (2015) argues, human behaviour is fundamental to the social sciences in terms of understanding what people do, where and why they do it, and the costs and benefits of this

behaviour. In order to understand the 'aggregate' differences in socio-economic activities and performance there is a need to explore how these difference stem from the experiences and actions of individual actors (Ariely, 2008; Storper, 2013).

As Mokyr (2015) suggests, once institutions are accepted as an important factor in explaining development differences, cultural explanations – in the form of the beliefs and values upon which institutions are founded – are unlikely to be far behind. The issue of how cultural factors impact on regional development has been increasingly debated in recent years (Tubadji, 2012, 2013; Tubadji and Nijkamp, 2014, 2015; Tubadji et al. 2014a, 2014b). In particular, recent work on socio-spatial culture and the spatial nature of personality psychology has sought to address knowledge gaps relating to the role of context and environment in shaping behaviour (Beugelsdijk, 2009; Ferguson et al., 2011; Shi et al., 2014; Peris-Ortiz and Merigó-Lindahl, 2014). The fact that concepts such as 'tolerance' are found to be associated with regional development trajectories is an indication of the apparent importance of psychological and behavioural dimensions in determining these trajectories (Florida, 2002; Storper, 2013). From this psychological perspective, Obschonka et al. (2015), for example, draw on the Five-Factor Theory of Personality – the Big Five traits – to explain differences in behaviour across regions. The Five-Factor Theory is the predominant personality psychology model in contemporary psychological science (McCrae and Terracciano, 2005; Dodorico McDonald, 2008; Benet-Martinez et al., 2015).

Within studies of geographical personality, the measures normally associated with the Big Five framework of personality traits consist of: (1) openness – the tendency to be open to new aesthetic, cultural or intellectual experiences; (2) conscientiousness – the tendency to be organized, responsible and hardworking; (3) extraversion – an orientation of one's interests and energies toward to the outer world of people and things rather than the inner world of subjective experience, characterized by positive affect and sociability; (4) agreeableness – the tendency to act in a cooperative unselfish manner; and (5) neuroticism (emotional stability): neuroticism is a chronic level of emotional instability and proneness to psychological distress, whilst emotional stability is largely the opposite and concerns predictability and stability in emotional reactions, with an absence of rapid mood changes (Costa and McCrae, 1992; Goldberg, 1992; Soldz and Vaillant, 1999; Rammstedt and John, 2007; Credé et al., 2012).

Alongside personality psychology, the concept of culture generally refers to the way in which people behave, often as a result of their background and group affiliation. Rather than concerning individual behaviour, it relates to shared systems of meaning within and across ascribed and acquired social groups (Hofstede, 1980). Van Maanen and Schein (1979) suggest that culture can be defined by the values, beliefs and expectations that members of specific social groups come to share, while Hofstede (1980) refers to it as the collective programming of the mind, which distinguishes one group or category of people from another. Socio-spatial culture refers to the broader societal traits and relations that underpin places in terms of prevailing mind-sets and the overall way of life within particular places (Huggins and Thompson, 2015a, 2016). Therefore, it principally constitutes the social structure and features of group life within regions that can generally be considered to be beyond the economic life of such places. Fundamentally, socio-spatial culture consists of the overarching or dominant mind-sets that underlie the way in which regions function, that is, the ways and means by which individuals and groups within communities interact and shape their environment.

In a number of works, Huggins and Thompson (2014b, 2015b, 2015c, 2016) have established a model of socio-spatial (or what they also term ‘community’) culture whereby five component factors are argued to be of principal importance, namely: (1) engagement with education and work – partly drawing on Weber’s (1930) enduring notion of the work ethic and attitudes to economic participation; (2) social cohesion – relating to Durkheim’s (1893) notion of mechanical and organic solidarity social cohesion, whereby trait similarities and interdependence among individuals result in a perceived unity, togetherness, and less likelihood of exclusion; (3) femininity and caring attitudes – relating to Hofstede’s (1980) typology of national cultures and the notion of the femininity or masculinity of these cultures, with masculine cultures considered to be more competitive and materialistic than their feminine counterparts, which are more caring and harmonious in their outlook; (4) adherence to social rules – referring to the acknowledged role of such adherence for coordination purposes (Rodríguez-Pose and Storper, 2006), but also noting that it may constrain creative and innovative behavioural intentions; and (5) collective action – referring to the extent to which regions adopt an equity-driven cooperative action approach as opposed to a more individualistic action approach (Johnstone and Lionais, 2004).

1.8 RESILIENCE AND WELL-BEING

In recent years, theories of regional competitiveness have facilitated the flourishing of a number of additional concepts that help explain the unevenness of regional development, with two of the most important being those of ‘resilience’ and ‘well-being’. Although resilience is still a relatively emergent concept in the field of regional development, Chapter 12 in this volume by Crespo et al. and Chapter 13 by Martin and Sunley each introduce fully fledged conceptual frameworks for understanding and identifying the nature of regional resilience. In particular, Crespo et al. seek to understand the role of networks and institutions, whilst Martin and Sunley present a theorization of resilience that distinguishes its focus on regional reactions to shocks from the long-term and comparative nature of the concept of competitiveness. Furthering these ideas, in Chapter 14 of this volume Cellini et al. provide empirical evidence that highlights the complex relationship between regional resilience and competitiveness as manifested by growth performance.

In the sphere of economics, resilience is seen as the ability to return to equilibrium or move between equilibria, but the social sciences have tended to link the term more to adaptability and evolutionary economics. From a policy perspective, the latter view is likely to be of more use as resilience is not restricted to the capability to rebound from a shock, but also considers the actions taken in the lead up to the shock and how this influences the ability to rebound. Another perspective views resilience as the capability to withstand shocks. This can be determined by the sensitivity to a shock, with those economies that are less influenced by shocks being more likely to recover (Simmie and Martin, 2010). Resilience effectively has three properties in the socio-ecological context of regional economies: the extent to which change can be experienced without the loss of structure; the degree to which an economy can reorganize; and the degree to which it can create and sustain a capacity to learn and adapt (Thornton, 1999; Begley and Tan, 2001; Hudson, 2010; Thornton et al., 2011). Of course, it would be wrong to consider the resilience of

regional economies in isolation, since the extent to which resilience develops and changes is likely to be influenced by the actions of neighbouring economies and factors such as national policies (Bristow, 2010; Christopherson et al., 2010).

A key challenge in examining regional resilience is that such resilience can only be put to the test in periods of difficulty. This means that future economic success cannot be based on current success. To address this, Martin and Sunley (2011) conceptualize resilience through an adaptive cycle model, and although economies may benefit from increased knowledge flows and accumulation as connectedness increases (Garofoli, 2002), connectedness where it progresses too far can lead to collective lock-in (Ter Wal and Boschma, 2011). It is important, therefore, that sufficient adaptability and flexibility are retained; otherwise, there is a danger that highly specialized regional economies can enter a release phase where firms are rapidly lost from the economy (Peterson, 2000). This can then lead to a large decline in community welfare and well-being.

For Simmie and Martin (2010), it is avoiding rigidities from interconnectedness within a region that best ensures its resilience. For instance, regions in advanced national economies with a heritage of heavy industry may struggle to adapt to external shocks, and where competitiveness is lost, these regions may still place more reliance on development opportunities where negative externalities, such as those related to the environment, are prevalent. This is more likely to be the case where economic resilience is low and regions are unable to adapt and adjust. One explanation for the differing levels of resilience displayed across regions concerns the extent to which a strong regional system of innovation is present (Christopherson et al., 2010) which, like competitiveness, is likely to be underpinned by an embedded, vibrant and generally innovative and entrepreneurial economy (Wennekers and Thurik, 1999; Audretsch and Thurik, 2001; Aoyama, 2009).

With regard to the notion of well-being, economic growth does not necessarily result in 'good development', with low-quality growth manifesting itself through increased economic and social inequality (Stiglitz, 2013). Similarly, key drivers of economic competitiveness and growth such as innovation may not necessarily lead to higher rates of development, unless such innovations are of sufficient quality. In Chapter 15 of this volume, Jansson and Waxell introduce the role of quality-based theoretical frameworks for examining regional competitiveness, particularly focusing on the 'performance', 'projection' and 'protection' aspects of regional production processes. In this sense, regional development should not be confined to material aspects, principally related to economic growth and the 'productionist' view of such development, but should also incorporate the more 'humanistic' aspects of development, in particular conceptions of regional well-being (Chang, 2013). Research on regional development has historically concentrated upon economic growth, with measures such as gross value added (GVA) per capita and employment rates often emphasized (Armstrong and Taylor, 2000). However, the value of traditional measures of economic development can be questioned where regions have similar levels of income, but where populations enjoy differing standards of living (Sen, 1999); for example, where particular paths to economic success have longer-term ramifications in terms of pollution and other negative externalities (Power et al., 2010).

As such, it is important that theory considers the factors that should be the overall objectives of regional development. These objectives are likely to be context-specific, as well as being underpinned by the universal principles and ideals of democracy (Pike et al., 2007; Victor and Rosenbluth, 2007; Dolan et al., 2011). New concepts and measures

relating to well-being, or 'happiness', are emerging as useful constructs to better understand not only the social condition of communities but also the social welfare of development (Layard, 2011). Outcomes for citizens can take a number of forms, and while much analysis has concentrated on pure financial outcomes, clearly this does not capture all aspects of welfare. Happiness or well-being provides other measures of outcomes, with the non-financial aspects of well-being found to be associated with factors such as greater physical and mental health (Huggins and Thompson, 2012, 2014b). Place-based development at the regional level, therefore, should encompass broader notions concerning how places improve and get better in relation to a more widely encompassing socio-economic variety of elements (Pike et al., 2007).

In other words, regional development represents a change for the better for those living and working in particular regions, which may come in a range of differing forms. Indeed, as discussed in section 1.4 the ultimate aim of regional policymaking should be to increase the well-being of the population residing within regions (Easterlin, 1974; Huggins and Thompson, 2012). In general, this means placing a greater emphasis on 'high-road' policies associated with generating knowledge-based competitiveness, rather than 'low-road' policies that often focus on attracting foreign investment through lowering costs and ensuring that they remain low over time (Malecki, 2004). It is not, though, always evident that policymaking related to achieving competitiveness improvements fully considers the extent of the outcomes concerning issues of well-being. As outlined in section 1.4, a number of alternative measures of regional competitiveness have been developed, often attempting to incorporate outcome factors such as average wages and levels of unemployment (for reviews see Martin, 2005; Huggins, 2010), but they do not fully encapsulate the broader measures of the well-being of the citizens residing in a particular region.

Emerging research is beginning to examine the link between competitiveness and well-being, with the results suggesting that, in general, higher levels of regional competitiveness are associated with higher levels of well-being (Huggins and Thompson, 2012). Regions with relatively low competitiveness are more likely to suffer from negative externalities, which are also associated with lower levels of well-being. This means that when seeking to maximize the well-being and welfare of a region's population, competitiveness measures are a reasonable guide to the extent of success. In general, the key features of the well-being of places have a strong symbiotic association with the prevailing socio-economic business culture, defined as encompassing competitiveness-related traits such as entrepreneurship, innovation, risk taking, and more generally, collective aspirations, motivations and opportunity development. However, whether or not these relationships are necessarily sustainable in an evolutionary sense is less clear (Huggins and Thompson, 2012).

From a policymaking perspective, it is crucial that future formulations pay more attention to the dynamic link between competitiveness and well-being at the regional level. Economic development, social cohesion, welfare and environmental policies must become better integrated if they are to build sustainable local communities. Policymakers have for many years recognized the link between social and community development and economic development. Most development strategies at a regional level, therefore, provide an understanding of how policy initiatives related to improving social inclusion can facilitate wider economic development in relation to a number of core strands, including community development. There is, however, little underlying policy research that seeks to integrate these strands to provide a cohesive framework for understanding how the social

condition of particular regions and their communities impinges on economic development trajectories and vice versa. This suggests the requirement for a fundamental rethinking of the organization and governance of regional policymaking. As new concepts and measures of this social condition emerge, they will offer a significant opportunity to better understand not only the well-being of places but also the social welfare aspects of policy intervention. In future, these aspects must play a stronger role in policymaking at the regional level.

1.9 CONCLUSIONS

This chapter has presented a perspective on the notion of regional competitiveness that sets it within the context of established theories of endogenous growth and development as well as contemporary theoretical contexts such as regional growth systems, institutions, cultural and behavioural systems, resilience and well-being. At the root of this analysis is the search to identify the multiple determinants of regional development by cutting into the key theoretical debates and discourse at various points and intersections. This allows a deeper understanding of both the upstream and downstream factors that promote regional competitiveness in the form of long-term and sustained economic growth and development. Although at first glance the variety of theories, especially the most contemporary explanations, would appear to preclude theoretical integration, a closer examination suggests an underlying logic and connectedness across each approach.

At the highest level, it can be argued that the key tenets of regional competitiveness theories – in the form of knowledge, innovation and entrepreneurship – are strongly associated with endogenous growth frameworks, and represent the more downstream explanations of regional development. However, it is increasingly suggested that positive regional growth and development also requires high-quality institutions, in the form of growth-enabling rules and incentives, alongside the types of capital suggested by regional competitiveness theory. Therefore, as shown by Figure 1.3, a more midstream means of explaining regional growth and development is to conceptualize regions as growth systems within which the interaction between available capital assets and the institutional infrastructure is the major determinant.

Such a systems-based approach to connecting endogenous capital accumulation and institutional theories of regional growth and development potentially offers a means of delineating a framework to better understand how investment in capital assets, especially intangible assets, is related to the institutions underlying the economic functioning of regions. In the past, both capital accumulation and institutional theories of growth and development have been criticized by some scholars for their lack of explanatory power (Glaeser et al., 2004; Chang, 2011), which is perhaps a result of each theory being viewed somewhat in isolation. A meshing of these theoretical approaches, however, indicates that regional growth is a highly endogenous, recursive and evolutionary process whereby the interaction between capital and institutions at a number of different, yet interdependent, levels of organizational arrangement may offer more explanatory power.

Regions will continue to act as laboratories for entrepreneurship and innovation, and future policymaking would do well to recognize that increasing the stock of associated intangible capital alone is unlikely to produce significant increases in economic growth

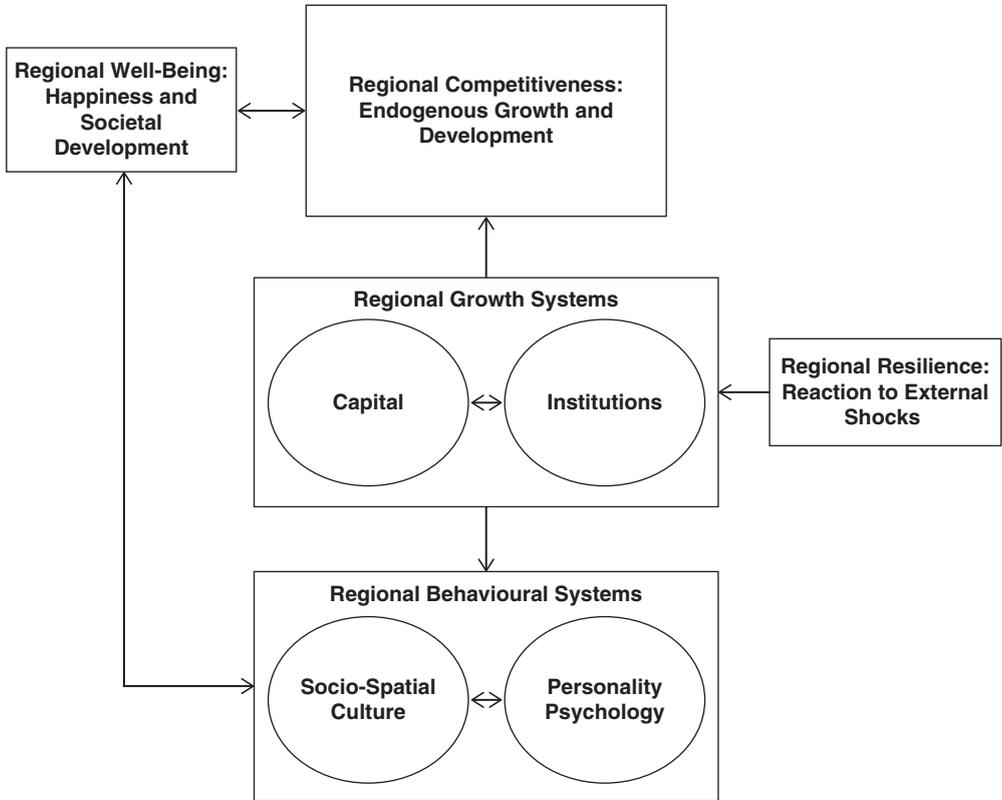


Figure 1.3 *Connecting contemporary theories of regional competitiveness and development*

unless high-quality institutions are in place. Storper (2010) argues that it is difficult to propose varieties of regional capitalism in a similar manner to that employed by those analysing institutions in a comparative manner across nations (Hall and Soskice, 2001). Nevertheless, by identifying the connection between types of institutions and forms of ‘growth capital’, it is possible to consider distinct varieties in the economic growth systems and models at play across regions. Within an economic environment whereby intra-regional economic unevenness has become as manifest as the long-time recognition of inter-regional unevenness, a key issue for both theorists and policymakers is to understand how the institutional structure of a region promotes economic growth that is as equitable as possible, and avoids the forms of rent-seeking by economic and political actors that often undermines long-term and sustainable economic growth. Similarly, as shown by Figure 1.3, such endogenous long-term growth may be susceptible to disruptions resulting from exogenous shocks. In this case, the resilience of regions to weather such shocks will be a factor in determining how the growth system of each region reacts and adapts to these disturbances.

Further, it is acknowledged that the economic growth systems of regions are framed by deeper-rooted upstream determinants stemming from the socio-spatial cultural and behavioural traits of a region. Whilst institutions can be considered to be the rules of

the game governing growth processes, cultural and psychological traits encompass the extent to which such rules are adhered to, as well as the way in which they foster future institutional change. Finally, although the focus of regional competitiveness narratives concerns explanations of economic outcomes, there is scope to consider further theoretical connections with wider development goals beyond economic growth, such as those related to social development, well-being and the sustainable development of regions.

In order to frame and explore in more detail some of the key components of the regional competitiveness discourse, the remainder of this volume presents a series of chapters organized around six substantive parts. Part I, 'Regional Competitiveness, Economic Development and Growth', begins with Chapter 2 by Michael Storper, who further sets the scene by discussing some of the major debates and schools of thinking in the field of regional growth and change. In Chapter 3, Paola Annoni and Lewis Dijkstra further our understanding of how to measure regional competitiveness by presenting a state-of-the-art methodological approach. Richard Harris (Chapter 4) continues this state-of-the-art approach through a critique of the evolution of models that seek to explain regional economic growth. Chapter 5 by Jan Fagerberg and Martin Srholec takes an empirical approach to explaining differences in regional economic performance by utilizing competitiveness-related theory. In Chapter 6, Edward J. Malecki undertakes a review of the economic competitiveness and regional development literature to explain why the concepts of knowledge and innovation have become such important explanatory factors.

In Part II, 'The Principal Elements of Regional Competitiveness', Karl Aiginger and Matthias Firgo (Chapter 7) theorize on the evolution of the competitiveness concept, and through empirical analysis present regional competitiveness as a concept linking the goals of firms with the welfare concerns. In Chapter 8, Frank van Oort and Mark Thissen analyse regional competitiveness through the lens of economic connectivity utilizing new and novel data and measures of revealed regional competition. Chapter 9 by Ugo Fratesi explores the dynamic nature of regional competitiveness and the requirement for the renewal of competitiveness through innovation over time. In Chapter 10, Roberto Camagni seeks to build a holistic theory of the drivers of regional competitiveness by suggesting that a multiplicity of factors, which collectively can be termed 'territorial capital', interact to determine regional competitiveness outcomes. Chapter 11 by Robert Huggins and Piers Thompson explicitly seeks to establish a model that identifies the role of networks of knowledge flow in promoting regional competitiveness.

Part III, 'Regional Competitiveness, Resilience and Quality', focuses on the concepts of resilience and quality as ideas that both complement and further regional competitiveness frameworks. In Chapter 12, Joan Crespo, Ron Boschma and Pierre-Alexandre Balland develop the concept of regional resilience by adopting an evolutionary perspective; whilst in Chapter 13, Ron Martin and Peter Sunley develop a fundamental framework to define regional resilience and to distinguish it from the concept of regional competitiveness. Chapter 14 by Roberto Cellini, Paolo Di Caro and Gianpiero Torrisi presents a novel empirical analysis of regional resilience based on a study of Italian regions. In Chapter 15, Johan Jansson and Anders Waxell argue that alongside innovation the notion of 'quality' is an important, yet often overlooked, factor in explaining regional competitiveness.

In Part IV, 'Competitiveness and Emerging Regions', Chapter 16 by Andrés

Rodríguez-Pose and Callum Wilkie empirically assesses innovation-led regional competitiveness in the context of the impact of the European Union's policy approach to development in peripheral regions. In Chapter 17, Ivan Turok focuses on the regional context in the global South to argue that urban land and infrastructure systems (ULIS) are an often neglected feature of regional competitiveness frameworks. The focus of Chapter 18 by Imre Lengyel is to integrate regional competitiveness and endogenous growth theories to better understand performance differences across regions in transition economies.

Part V focuses on 'Urban Regions and City Competitiveness', with Chapter 19 by Pengfei Ni and Yufei Wang analysing urban sustainable competitiveness, and in the process constructing a Global Urban Sustainable Competitiveness Index. In Chapter 20, Jianfa Shen looks at the role of inter-regional competition and cooperation in determining urban regional development, focusing on the linkage between Hong Kong and Shenzhen in China. Chapter 21 by Lucía Sáez and Iñaki Perriáñez presents a novel framework by which to measure and benchmark the competitiveness of urban regions and cities, utilizing data for a cohort of European cities.

The final part of the volume, Part VI, is concerned with 'Regional Competitiveness Strategies and Policy'. In Chapter 22, Christian Ketels assesses the extent to which regional governments can play a role in facilitating improved competitiveness outcomes, and which policies may be the most effective. Furthering these arguments, David Audretsch, Hugo Menendez, Aileen Richardson and Apexa Mamtora (Chapter 23) present a framework by which policymakers can strategically manage their regions in order to foster competitiveness improvements. Chapter 24 by Philip McCann and Raquel Ortega-Argilés critiques the development of the notion of competitiveness to better understand how it can be positively used within policy settings to shape enhanced regional performance. The final chapter by Mari José Aranguren, Edurne Magro and James R. Wilson (Chapter 25) synthesizes theoretical, empirical and policy insights as a means for providing a new take on the relationship between regional development and regional competitiveness policies.

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