Integration, spatial dynamics and regional policy dilemmas in the European Union

George Petrakos

Professor, Department of Planning and Regional Development University of Thessaly, Greece e-mail: petrakos@uth.gr

Abstract

This paper presents a critical account of the process of integration and its implications for the future of European Union. It analyses the type, strength and direction of trade and factor flows among places and the emerging geography of development in Europe. It argues that integration is not a space neutral process, as its main drivers are characterized by spatial selectivity and diverging performances, generating an overall unfavorable environment for lagging-behind regions in the EU. The paper also discusses the current policy dilemmas in the EU, arguing that top-down uniformity in policy choices and a strict framework of policy directives should be avoided, as different places may have to choose a different mix of regional policy that will correspond better to their needs. The paper also examines why the persistently underperforming regions in Europe cannot learn and benefit from best-case examples and the success stories of other regions. A growing bibliography indicates that EU regional policy has not taken sufficiently into consideration the experience of these regions and as a result has limited relevance to their needs. Although factors affecting economic potential are usually different in advanced and less advanced regions, cohesion policies attempt to solve the underdevelopment problems of the lagging regions, only informed by the experience of the successful ones. The paper concludes that regional policy has to change in important ways. The new territorial approach requires policy to become more flexible and more adaptive to local and regional needs. This means that uniformity in policy priorities and mix should be avoided and the proposed 'pan-European approach' should leave enough room for bottom up and place based approaches, as the experience shows that no single path or an a priori mix of policy tools exists for every place.

Key words: Integration, cohesion, regional policy, EU

September 2012

1. Integrated spatial economies

The European Union is increasingly characterized by a changing economic environment associated with imbalances and discontinuities that will be challenging policy making in the next period. The process of integration, based on open market competition and unequal national and regional productivities has resulted to increasing trade deficits and public deficits in many parts of the periphery.

In this new environment, the space of flows (integration) affects to a large extent the space of places (development). The type, strength and direction of trade and factor flows among places determine to a large extent their prospects and limitations in the emerging geography of development in Europe.

Although there is a strong consensus that the market-based process of economic integration is a positive-sum game increasing aggregate efficiency (Heckscher 1919/1991; Ohlin 1933; Samuelson 1949; Solow 1956; Swan 1956; Borjas 1989; Greenwood et al. 1991), the allocation of overall welfare gains is a subject of debate (Amin et al. 1992; Gianneti 2002; Guerrieri and Rossi 2002; Melachroinos 2002; Petrakos et al. 2005c). Higher levels of competition - especially imperfect competition - are deemed to result to an uneven distribution of the benefits of economic integration, increasing spatial imbalances (Lyons et al. 2001; Martin and Ottaviano 2001; Ciccone 2002; Brülhart and Elliott 2004).

The impact of economic integration on regional growth depends on the ability of regions to compete successfully in order to benefit from open markets. More advanced and competitive regions are expected to benefit more from economic integration, while less advanced regions may even experience a net loss (Petrakos 2008; Kallioras and Petrakos 2010).

A number of recent studies indicate that integration is not a space neutral process: it may lead to a serious redistribution of income, wealth and resources at the expense of the less attractive or less productive places (Camagni 1992; Cuadrado-Roura and Parellada 2002; Puga 2002; Barrios and Strobl 2005; Kallioras and Petrakos 2010; Petrakos et al. 2011).

The current turbulence and instability triggered by the public debt of the weaker States has transformed a financial crisis to an economic crisis affecting the productive bases and income levels of the European economic space in a very unequal way.

2. Spatial selectivity in growth processes

The new European economic space is composed by forces and processes that decisively affect the prospects of regions for growth and development. The available evidence indicates that the main drivers of regional growth in Europe are agglomeration economies, geography, integration, structure and initial conditions with respect to development levels (Petrakos et al. 2011). Agglomeration economies favor growth in large urban concentrations, while geography favors regions with high levels of accessibility and connectivity within the European market. The process of integration seems to favor the more advanced regions, hosting a higher share of large, experienced and internationalized firms and as a result, being in a better place to compete in the new open European market. The economic structure of regions is expected to play an important role, as structural convergence at the EU level appears to be a precondition for regional convergence. Regions having higher levels of similarity with the dominant European economic structure tend to achieve higher rates of regional growth.

As a result, regional dynamics are characterized by spatial selectivity and an overall unfavorable environment for lagging-behind regions. Most drivers of regional growth tend to favor (conditionally or unconditionally) the larger, central, more advanced and with a better structure regions. A weaker growth performance is expected for peripheral, structurally diverging and lacking home-market and scale-effects regions. Moreover, many of these regions will experience a pressure in their productive base arising from the higher levels of integration and the higher levels of competition from the more advanced counterparts.

In the recent period, regional inequalities in Europe appear to be consistently high following a mixed core-periphery, east-west and north-south pattern. On average, core, western and northern regions are more advanced than peripheral, eastern and southern regions respectively. Although stories of success emerge in nearly all parts of Europe, their spatial frequency maintains this pattern intact over the last 20 years (Barrios and Strobl 2005; Petrakos 2008).

A large number of econometric studies have examined regional inequalities in Europe with a variety of results that mainly depend on the selection of methodology (Combes and Overman 2004). However, an increasing number of papers (Button and Pentecost 1995; Quah 1996; Fingleton 1997; Magrini 1999; Rodriguez-Pose 1999; Canova 2004; Petrakos et al. 2005a; Petrakos et al. 2005b; Vojinović and Próchniak 2009; Petrakos and Artelaris 2009; Artelaris et al. 2010) and a simple examination of regional data show that inequalities are increasing. First, at the national level, regional inequalities have increased in most countries. The weighted coefficient of variation of regional GDP per capita has increased during the last decade in most EU countries when inequalities are measured at the NUTS II or the NUTS III level.

In most countries, the spatial patterns of growth have favored the metropolis, which has increased its dominance. The share of national GDP produced in the metropolis has increased in most EU countries in the same period. Besides the success of the metropolitan regions, the spread in regional performance increases also because of the weak performance of the lower end of the regional distribution. A significant part of regional inequalities is due to the inability of the least advanced regions to close the development gap and converge towards the national average.

In addition, regional variation in terms of income levels seems to be also increasing at the European scale. The European top-10 NUTS II regions have improved their relative position in terms of GDP per capita in the same period, while the European bottom-10 regions have experienced a relative decline. Although progress is made at both ends of the European scale, success is more obvious in the leading regions, rather than in the lagging ones.

Finally, inequalities in GDP per capita levels among EU Member States could have been higher and the (so much celebrated) national convergence in the EU significantly lower (or inversed) if most of the Southern and Eastern Member States had not been following a debt-driven growth path for a considerable part of the post euro era.

3. Rethinking Regional Policy in the EU

The discussion above indicates that serious spatial imbalances in development levels are very likely to be maintained (or even increase) at all geographical scales. This raises a number of issues related to the strength, mix and delivery mechanisms of regional policy that may need to be reconsidered (Petrakos 2011a; Petrakos 2011b).

The balance and mix of regional policy

First, the discussion about the balance and mix of regional policy in terms of: (a) endogenous or exogenous forces, (b) top-down or bottom-up approaches, (c) concentration in a few policy areas or greater diversity, (d) prioritizing infrastructure, human resources or entrepreneurship, (e) supporting people prosperity or places prosperity options, needs to take into consideration the structural characteristics, the initial conditions and the local capabilities of each place. This means that different places may have to choose a different mix of regional policy that will correspond better to their needs. The great variability of the European economic space and the great variability in policy experiences indicate that top-down uniformity in policy choices and a strict framework of policy directives should be avoided. The EU policy framework should support and encourage each country or region to adopt a balanced, knowledgeable and

creative synthesis of different policy options that will be more suitable to deal with the place-specific mix of development problems (Barca 2009).

Second, it becomes evident that the current balance of market processes and policy responses generates an outcome that favors more the competitiveness than the cohesion pillar of the European policy (Petrakos et al. 2011). On the one hand, it should be clear that less advanced regions will continue to critically depend on EU regional policy in order to support their development efforts in a highly competitive economic environment. This means that the policy mix has to be reconsidered. In order to avoid further polarization of the European economic space, Structural Funds should increase their share in the EU budget and make their presence more visible in weak and crisis-hit regions. On the other hand, the EU should consider the adoption of a more progressive policy-led redistribution that may be needed in order to counterbalance and partially compensate for the effects of market led redistribution that takes place at the European scale in the post-SEM and especially the post-EMU era.

Finally, it is worth noting that theories and policies related to the spatial aspects of the development process follow over time a cyclical pattern that resembles some form of asymmetric long term waves (Petrakos 2008). Following broader social and political processes, periods of more intensive and hands-on policy intervention are gradually or abruptly replaced by periods where a market-driven understanding of growth dominates and policy interventions are kept to a minimum. Typically, policy cycles are repeated over-time and are driven by (but also drive through a circular causation process) economic cycles and new developments in theory (and perhaps ideology).

A recent study on the determinants of economic dynamism (Arvanitidis et al. 2007) indicates that a number of perceived determinants and policies are effective only within a limited scope. In other words, a carefully designed mix of (allegedly) opposite policy doctrines may produce better growth effects than one-sided solutions. A moderate combination of market-driven and policy-led solutions, discretional and persistent policies, or cohesion and efficiency, may generate in the long term better growth outcomes than 'pure' policy prescriptions and one-sided approaches.

This is perhaps the reason explaining why modern and more synthetic approaches in spatial development theory (endogenous growth and new economic geography) are increasingly preferred in the literature to older and more one-sided ones (neoclassical models). As the former allow for an optimum level of policy intervention, it gains ground the understanding that economic growth and cohesion cannot be secured, if market forces are not supported (or controlled) by a strong policy counterpart.

The point of the argument is that a modest policy mix that attempts a synthesis (that may change its emphasis over time) of policy options now may save the cost of revising policy mix too often. The dominant market-driven (and relatively costless) policy choices of this decade may cause the most difficult (and demanding in terms of resources) problems of the next decade.

Why regional policy has not reduced inequalities?

One of the most frequent critiques of regional policy is related to its apparent inability to reduce inequalities in a visible and systematic way (Hurst et al. 2000; Petrakos et al. 2005c; Petrakos 2008). This issue is raised from two different perspectives. The first perspective is strategically supporting regional policy, but it raises the issue in order to help the Commission and the national or regional governments to improve its efficiency. The second perspective is in general skeptical with regional policy (and in general with the policy arm of the EU) and would favor a drastic reduction justified on budgetary grounds. Therefore, the question of increasing inequalities despite the progress made and the funds allocated for regional policy is an important one, affects the future policy mix of the EU and deserves some consideration.

One of the reasons behind the limited ability of regional policy to reduce the gap between the advanced and the less advanced regions is related to the fact that in the period of integration market processes (that tend to increase inequalities) in many cases are stronger than policy responses. As it has been discussed earlier, the opening of markets and the single currency has released competitive forces that typically favored the more advanced areas. Thus, regional policy was not able to reduce inequalities because the EU and its Member States were unable or unwilling to allocate a higher level of funding for its purposes. This does not imply that available resources were wasted or used with no apparent results. It is almost certain that in the absence of regional policy (in the way it is implemented today), inequalities would have been much higher. In addition, we should take into consideration that regional policy often has to counterbalance the spatial effects of other European and national policies (RTD, industrial, competition, education, etc) that tend to increase inequalities. For example, the R&D policies tend to allocate resources to places with high quality human resources that develop innovative research and successful business-research partnerships. This allocation, which might be absolutely rational on efficiency grounds, will most likely increase inequalities making the task of regional policy more difficult.

Other, more 'internal' than 'external' explanations are also available. A frequent criticism is that regional policy (both at the national and European level) has become overtime very bureaucratic and over-regulated and its delivery mechanisms move very slow compared to the urgency and severity of (under)development problems encountered in many parts of the EU. In many countries the delivery mechanism is often centralized and space-blind, limiting its ability to correctly respond to regional problems. This is one of the reasons (but not the only one) why regional policies are badly designed and implemented. Cases of policy failure, where the identification and prioritization of regional needs and targets, the proposed policies and their implemented regional policies is a serious problem that is not related to the level of available resources but to the planning mechanisms and planning cultures that prevail in different places. This problem is more serious in systematically underperforming regions (see below) where

typical policy prescriptions very often do not seem to work. Unfortunately, the experience indicates that regional policies are more difficult to implement in the regions that need them the most.

Defending the 'convergence' goal of regional policy

In recent EC reports and a number of supporting documents it has been argued that the 'convergence' goal that has been adopted in the previous programming periods should be abandoned (Barca 2009; European Commission 2010). The argument made is that the 'convergence' goal is either too vague to measure or too ambitious. Other goals like 'combating inefficiency and exclusion' were proposed to replace 'convergence'.

The argument made in this short note is that the EC proposal is unjustified and reduces the focus and the territorial dimension of regional policy. The 'convergence' goal simply means that the weaker places receive more attention and resources than the more advanced ones. This principle is a necessary condition for the allocation of resources at the EU and the national level in order for the cohesion goal to materialize in practice.

In fact, a reconciliation of the "existing" and the 'new' goal is possible. The two goals are actually complementary and should be applied together, although with a different priority and emphasis in the different geographical and administrative levels.

At the EU and the national level (where the top-down approach in policy making dominates) *convergence* must be maintained as a goal in order to ensure that the weaker receive more support. Otherwise, we are likely to experience increasing – and perhaps destabilizing – inequalities in the future.

On the other hand, at the regional and local level (where bottom-up policy approaches are more active) attention must be focused on reducing persistent inefficiency and social exclusion.

Therefore, one way to reconcile the two goals is to adopt both as equally important for the next programming period where regional challenges will be most likely more serious. In this setting, the goal of 'convergence' will take the lead when top-down policies are designed and implemented, while the goal of 'combating inefficiency and exclusion' will take the lead when bottom-up policies are in focus.

Regional policies for persistently underperforming regions

In many instances, a significant part of regional inequalities is due to the inability of the least advanced regions to close the development gap and converge towards the national average (Paci and Pigliaru 1997; Vargas and Minguez 2000; Paluzie 2001; Petrakos 2008; Petrakos et al. 2011). Indeed, it has been noticed that, despite some exceptions, there is a surprising stability at the low end of the development scale, which

includes the worst performing regions. Although the regional leaders club is more often in a state of flux, with significant entry and exit over time, the regions at the bottom of the performance scale are in many cases persistently the same (Mora 2005). In other words, there is low mobility in the bottom of the national and perhaps European scale. The national laggards of the 1980s and 1990s tend very often to be the underperforming regions of today.

In light of this situation, the question that arises is why some regions fail persistently in terms of growth performance, while some others with similar characteristics are more successful? Why the persistently underperforming regions in Europe cannot learn and benefit from best-case examples and the success stories of other regions?

This is an important question, to which there is not a convincing answer, because theory and policy are rarely informed by the experience of these regions. Contemporary regional growth theories emphasize the role of human capital, knowledge, innovation and entrepreneurship for a successful growth performance. However, in most cases of underperforming regions, such factors are not only weak in the corresponding local bases but, to the extent that they can in fact be mobilized, they are still largely unable to allow these regions to break out from the underdevelopment trap. This may be due to a number of reasons, involving a combination of local (structural) and national (systemic) ones. An implication of this, is that development strategies emanating from theoretical models built on the experience of dynamic regions may not only be misleading but also, in some cases, counterproductive for the persistently underperforming regional economies. On the one hand regional development theory practically ignores the lessons that can be derived from the experience of these regions and, on the other, its recommendations often fail to take into consideration the specific conditions of persistently lagging regions.

As one may suspect, this eventually becomes a policy problem. Although regional policies and disposable funds intend to solve the underdevelopment problems of the lagging regions, they are only informed by the experience of the successful ones. The argument is simple, but not necessarily correct: if a set of policies have contributed to the success of the advanced regions, then they should be capable to do the same in the less advanced ones.

This line of thought is based on two salient assumptions that are rarely made explicit: on the one hand, that less successful or less advanced regions are in the same trajectory (though in an earlier phase of development) with advanced ones; on the other, that success and failure are symmetric processes. This means that if the presence of a factor contributes to success in one place, its absence from another would explain failure. This should not necessarily be the case.

In fact, a diverse literature exists which suggests that factors affecting economic potential may be different in advanced and less advanced regions and countries

(Arvanitidis et al. 2007). Recent research examining explicitly this issue, has shown that the top-ten factors which advance economic development differ between the two groups of regions. The implications of this are both obvious and profound, indicating that the same policy-frame is not appropriate to both advanced and less advanced regions. Seen from this perspective, it is indeed a heroic assumption to expect that, for regions with structurally different endowments and characteristics, implanting a missing factor is a safe recipe for success.

To sum up, EU regional policy has not taken sufficiently into consideration the experience of persistently underperforming regions and as a result has limited relevance to their needs. In most cases it is 'informed' by best-case examples and therefore the information included in the unsuccessful cases is lost. Successful policies in advanced or fast growing regions are quickly tabbed as policies of success recommended to every region seeking similar results. However, such types of policies may not be always suitable for the weaker regions. The fact that after 30 years of regional policy in Europe the issue of economic and social cohesion is as salient as ever and that many of the initially lagging regions still remain poor is a clear indication of the need for a different policy approach for the persistently falling behind regions.

Place based policy approach: key characteristics

As the place-based approach of regional policy receives gradually more attention (Barca 2009), the discussion about the required reforms of regional policy should be enriched with ideas that will make this new concept operational and relevant to existing development challenges.

The place-based regional policy approach mainly indicates that development policies are built primarily on existing comparative advantages in the local economy. The new approach takes into consideration the characteristics of the local economic base and attempts to design and implement a development strategy that is explicitly based on existing specializations and strong points.

The new approach is not a short sighted or an inwards looking one. It 'thinks globally and acts locally' in the sense that it mobilizes all available endogenous growth drivers or key actors making use of the available social capital and other intangible regional assets in order to better place local products and services in international markets and deal from a better position with exogenous forces.

At the same time, the new policy approach 'thinks locally and acts globally'. It is locally based, but at the same time outward looking and intensively networking in all scales and directions, in an effort to learn from best practices elsewhere, attract investors and resources and expand market potential for its products and services.

It is more responsible and active in designing and implementing bottom up policies and in negotiating with national/EU levels for the top down policies. At the same time, it is more responsive to local conditions (tailored made) than follow a specific 'successful' policy prescription (one-size-for-all) and more adaptive to changing local conditions than predetermined. Although, it has to respond to sectoral policies designed at the national or the EU level and structural changes that are related to sectoral shifts in demand or the technology of production, a place based approach has to maintain an integrated (and not a sectoral character) in order to deal successfully with the entire spectrum of interacting market forces and dynamics.

Last, but not least, a place based approach to regional policy has to be accountable. It has to make carefully weighted (and fully justified) choices of development priorities from a broader national or European basket, it has to set measurable targets, select the appropriate for each place mix of policy tools and work for their implementation. Periodically, it has to evaluate the results of the applied mix of policies for each place on a cost-benefit basis and adjust when and where this is necessary.

The challenge ahead: reforming EU regional policy

The discussion above indicates that the European spatial economy is characterized by increasing imbalances and discontinuities that, irrespective of the form they take (serious GDP gaps, high unemployment rates, unsustainable trade or public deficits), threaten economic efficiency, social and political stability. Therefore, the first challenge for the EU regional policy is to obtain the required strength and increased resources in order to combat inefficiency, divergence, exclusion and the new forms of deprivation arising across the European regions.

In the process of reform of the EU regional policy it will be useful to keep in mind that the main drivers of growth tend to increase inequalities through a market led (re)distribution of resources, wealth and opportunities. Given that different regions have a very different access and control over these growth factors, it becomes clear that regional policy should maintain emphasis on the weaker places. In this context, it may have to review carefully its proposed core priorities, as some of them (migration, children, ageing) may transform cohesion policy to social policy, missing the territorial dimension.

Regional policy will also benefit from the improvement of its learning mechanisms. Although the experience of the successful regions will always be a valuable empirical basis for policy design, attention should also be given to the experience of the underperforming regions and the factors behind their inability to use successfully available policy options. 'Learning from failure' may be a necessary and complementary line of thinking for the Commission and the national and regional governments that will improve policy results for the weaker areas in the next programming period. In addition, the new territorial approach requires regional policy to become more flexible and more adaptive to local and regional needs. This means that uniformity in policy priorities and mix should be avoided and the proposed 'pan-European approach' should leave enough room for bottom up and place based approaches. It also means that the EU regional policy should allow for (and encourage) variety, as the experience shows that no single path or an a priori mix of policy tools exists for every place.

In the same line, the Commission and the national governments have to drastically reduce the administrative burden at all levels and improve the delivery mechanisms and the speed in policy design and implementation.

Finally, the EC has to reconsider its position for macroeconomic conditionalities in the use of structural funds. The experience already shows that controlling public deficits is an exercise that depends on a number of internal and external strongly interacting factors. Although moving towards a balanced budget economic environment is currently a highly desirable policy goal, we have to admit, that this goal is more difficult to achieve in economically and structurally weak Member States that mostly depend on cohesion policy and structural funds. This policy approach clearly contradicts with the very essence of cohesion policy and threatens its implementation, as it makes no sense to punish the weaker states and regions for not being able to deal with their structural problems and imbalances.

Acknowledgments

Report prepared for the Polish Presidency of the EU and presented in the Seminar "The Territorial dimension of development policies", 18-19 July 2011, Ostróda, Poland. The Seminar was organized by the Polish Presidency in the framework of the discussions and debates for the reform of the Cohesion Policy in the EU. The speakers in the Seminar were the following: Sergey S. ARTOBOLEVSKIY, Russian Academy of Science, Russian Federation; Fabrizio BARCA, Special Adviser to the European Commission; Iain BEGG, London School of Economics, United Kingdom; Jiří BLAŽEK, Charles University in Prague, Czech Republic; Michał BONI, Board of Strategic Advisors to the Prime Ministers of Poland; Daniel BRAUN, Ministry of Regional Development, Czech Republic; Roberto CAMAGNI, Politecnico di Milano, Italy; Martin FERRY, European Policies Research Centre, United Kingdom; Jose Enrique GARCILAZO, OECD; Indermit GILL, Lead Economist, World Bank; Grzegorz GORZELAK, Euroreg, University of Warsaw, Poland; Wolf HUBER, Federal Chancellery, Austria; Marek KOZAK, Euroreg, University of Warsaw, Poland; Philip McCANN, Special Adviser to the European Commission; Jan OLBRYCHT, European Parliament; Joaquim OLIVEIRA MARTINS, OECD; George PETRAKOS, University of Thessaly, Greece; Andrés RODRÍGUEZ-POSE, London School of Economics, United Kingdom; Duarte RODRIGUES, NSRF Observatory, Portugal; Jacek SZLACHTA, Warsaw School of Economics, Poland; Peter WOSTNER, Government Office for Local Self-Government and Regional Policy, Slovenia

Bibliography

AMIN A., CHARLES D. and HOWELLS J. (1992), Corporate Restructuring and Cohesion in the New Europe, *Regional Studies*, 26(3): 251-266.

ARTELARIS P., KALLIORAS D. and PETRAKOS G. (2010), Regional Inequalities and Convergence Clubs in the European Union New Member-States, *Eastern Journal of European Studies*, 1(1): 113-133.

ARVANITIDIS P., PETRAKOS G. and PAVLEAS S. (2007), Determinants of Economic Growth: The Experts' View, *University of Thessaly Discussion Paper Series*, 13(10): 245-276.

BARCA F. (2009), An Agenda for a Reformed Cohesion Policy: A Place-Based Approach to meeting European Union Challenges and Expectations, Independent Report.

BARRIOS S. and STROBL E. (2005), The Dynamics of Regional Inequalities, *European Commission Economic Papers*, 229.

BORJAS G. (1989), Economic Theory and International Migration, *International Migration Review*, 23(3): 457-485.

BRÜLHART M., CROZET M. and KOENIG-SOUBEYRAN P. (2004), Enlargement and the EU Periphery: The Impact of Changing Market Potential, *The World Economy*, 27(6): 853-875.

BUTTON K. and PENTECOST E. (1995), Testing for Convergence of the EU Regional Economies, *Economic Inquiry*, 33(4): 664-671.

CANOVA F. (2004), Testing for Convergence Clubs in Income per Capita: A Predictive Density Approach, *International Economic Review*, 45(1): 49-77.

CICCONE A. (2002), Agglomeration Effects in Europe, European Economic Review, 46: 213–227.

CAMAGNI R. (1992), Development Scenarios and Policy Guidelines for the Lagging Regions in the 1990s, *Regional Studies*, 26(4): 361-374.

COMBES P.-P. and OVERMAN H. (2004), The Spatial Distribution of Economic Activities in the European Union, in V. HENDERSON and J.-F. THISSE (eds): *Handbook of Urban and Regional Economics*, Amsterdam: North Holland, 2845-2910.

CUADRADO-ROURA J. R. and PARELLADA M. (2002), Regional Disparities and Regional Convergence Problems in the EMU: Introduction, in CUADRADO-ROURA J. R. and PARELLADA M. (eds), *Regional Convergence in the European Union: Facts, Prospects and Policies*, Springer, 1-20.

EUROPEAN COMMISSION (2010), EUROPE 2020: A European Strategy for Smart, Sustainable and Inclusive Growth, Brussels: COM(2010) 2020,

FINGLETON B. (1997), Specification and Testing of Markov Chain Models: An Application to Convergence in the European Union, *Oxford Bulletin of Economics and Statistics*, 59(3): 385-403.

GIANNETTI M. (2002), The Effects of Integration on Regional Disparities: Convergence, Divergence or Both? *European Economic Review*, 46: 539-567.

GREENWOOD M. J., HUNT G. L., RICKMAN D. S. and TREYZ G. I. (1991), Migration, Regional Equilibrium and the Estimation of Compensating Differentials, *American Economic Review*, 81(5): 1382-1390.

GUERRIERI P. and ROSSI S. (2002), Real Competitive Advantages in the Single Currency Europe, in CUADRADO-ROURA J. R. and PARELLADA M. (eds): *Regional Convergence in the European Union: Facts, Prospects and Policies*, Berlin: Springer, 165-181.

HECKSCHER E. (1919 / 1991), The Effect of Foreign Trade on the Distribution of Income, in FLAM H. and FLANDERS M. (eds): Heckscher-Ohlin Trade Theory, Cambridge Massachusetts: MIT Press, 43-69.

HURST C., THISSE J.-F. and VANHOUDT P. (2000), What Diagnosis for Europe's ailing Regions? *EIB Papers*, 5(1): 9-29.

KALLIORAS D. and PETRAKOS G. (2010), Industrial Growth, Economic Integration and Structural Change: Evidence from the EU New Member-States Regions, *Annals of Regional Science*, 45: 667-680.

LYONS B., MATRAVES C. A. and MOFFATT P. (2001), Industrial Concentration and Market Integration in the European Union, *Economica*, 68: 1-26.

MAGRINI S. (1999), The Evolution of Income Dispersion among the Regions of the European Union, *Regional Science and Urban Economics*, 29: 257-281.

MARTIN P. and OTTAVIANO G. I. P. (2001), Growth and Agglomeration, *International Economic Review*, 42(4): 947-968.

MELACHROINOS K. A. (2002), European Integration and the Spatial Dynamics of Manufacturing Employment Change, *Environment and Planning A*, 34(11): 2017-2036.

MORA T. (2005), Elasticities of Ergodic Solutions in the Markov Chains Approach to Economic Growth Convergence, *Papers in Regional Science*, 84(1): 121-126.

OHLIN B. (1933), Interregional and International Trade, Cambridge Massachusetts: Harvard University Press.

PACI R. and PIGLIARU F. (1997), Structural Change and Convergence: An Italian Regional Perspective, *Structural Change and Economic Dynamics*, 8: 297-318.

PALUZIE E. (2001), Trade Policy and Regional Inequalities, *Papers in Regional Science*, 80(1): 67-85.

PETRAKOS G. (2008), Regional Inequalities in Europe: Reflections on Evidence, Theory and Policy, *Town Planning Review*, 79(5): 7-13.

PETRAKOS G. (2011a), Diverging Geographies: New Challenges for Theories and Policies of Cohesion and Development, *Key-note speech in the 9th Hellenic Regional Science Association Conference*, Athens, 6-7 May 2011 (in Greek).

PETRAKOS G. (2011b), Integration, Spatial Dynamics and Regional Policy Dilemmas in the European Union, *Presentation in the Polish Presidency International Seminar on the Territorial Dimension of Development Policies*, 18-19 July 2011, Ostróda, Poland.

PETRAKOS G. and ARTELARIS P. (2009), Regional Convergence Revisited: A WLS Approach, *Growth and Change*, 40(2): 319-331.

PETRAKOS G., KALLIORAS D. and ANAGNOSTOU A. (2011), Regional Growth and Convergence in Europe: Understanding Patterns and Determinants, *European Urban and Regional Studies*, 18(4): 375-391.

PETRAKOS G., PSYCHARIS Y. and KALLIORAS D. (2005a), Regional Inequalities in the EU Accession Countries: Evolution and Challenges, in BRADLEY J., PETRAKOS G. and TRAISTARU I. (eds): *Integration, Growth and Cohesion in an Enlarged European Union*, New York: Springer, 45-64.

PETRAKOS G., RODRIGUEZ-POSE A. and ANAGNOSTOU A. (2005b), Regional Inequalities in the European Union, in BRADLEY J., PETRAKOS G. and TRAISTARU I. (eds): *Integration, Growth and Cohesion in an Enlarged European Union*, New York: Springer, 29-43.

PETRAKOS G., RODRIGUEZ-POSE A. and ROVOLIS A. (2005c), Growth, Integration and Regional Disparities in the European Union, *Environment and Planning A*, 37(10): 1837-1855.

PUGA D. (2002), European Regional Policy in the Light of Recent Location Theories, *Journal of Economic Geography*, 24(3): 373-406.

QUAH D. (1996), Regional Convergence Clusters across Europe, *European Economic Review*, 40: 951–958.

RODRIGUEZ-POSE A. (1999), Convergence or Divergence? Types of Regional Responses to Socio-Economic Change in Europe, *Tijdschrift voor Economische en Sociale Geografie*, 90(4): 363-378.

SAMUELSON P. (1949), International Factor-Price Equalization Once Again, *The Economic Journal*, 9: 181-197.

SOLOW R. (1956), A Contribution to the Theory of Economic Growth, *Quarterly Journal of Economics*, 70: 65-94.

SWAN T. (1956), Economic Growth and Capital Accumulation, Economic Record, 32: 334-361.

VOJINOVIĆ B. and PRÓCHNIAK M. (2009), Divergence Period in the European Convergence Process, *Transition Studies Review*, 15: 685-700.