

# **Time for the Real Economy: The Need for New Forms of Public Entrepreneurship**

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## **1. Introduction**

The current crisis has offered the opportunity, out of necessity, to rethink the role of the public sector in the economy.

Beyond standard recipes calling for austerity, sound macro-economic policies and accelerating structural reforms, serious thought should be given to new ways of engaging directly with the real economy through smart public investments, particularly in innovation promotion.

Why this need exists, and how to address it, is the subject matter of this short paper.

For the sake of clarity, let me first try to explain what I understand by the “real” economy. This notion goes well beyond financial and macroeconomic indicators and aggregates.

By “real” economy I refer to the set of micro and meso (regional) economic conditions, largely place-based, within which firms, SMEs in particular, invest in production factors and produce and sell products and services in global markets.

In this sense, the “real” economy is what largely determines firms’ competitiveness, including access to the appropriate type of finance (e.g. availability of risk capital, soft loans, guarantees), technological capabilities, management culture, number and quality of knowledge linkages to other players within the innovation ecosystem (e.g. technology centres and universities), type of support provided by public sources (e.g. innovative/green public procurement, advanced business services), economic infrastructures (e.g. incubators, technology parks), quality of the labour pool and education and training programmes, and last but not least the quality of the political and economic institutions in a given country or region.

## **2. Origins of the Crisis**

Two closely connected reasons lie behind the apparent incapacity of traditional economic recipes to tackle the current crisis. They relate to diagnostics of the crisis’s origins and to the type of public policies addressing the causes and providing remedies.

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Responsibility for the accuracy of the analysis and for the judgments expressed lies with the author alone; this document does not constitute a policy position of the EU Commission.

Regarding the origins of the crisis, two different but possibly related explanations are generally put forward.

One points to trigger-happy and fiscally irresponsible governments surfing the business-cycle: that is, policy-makers and policy recipes interested in short-term and easy-fix solutions with re-election as the primary target.

The other explanation emphasises the consequences of unfettered greed and a credit-fuelled building bubble (Lewis, 2011) thriving on financial globalisation, much of it through tax-opaque offshore (Shaxson, 2012) and unregulated markets: factors that have made us drift “from having a market economy to being a market society” (Sandel, 2012). The latter is often legitimised by the, until recently, largely uncontested intellectual construct of the “Washington consensus” that irrespective of place, promoted an ambitious economic agenda including deregulation, privatisation, liberalisation of interest rates and inward foreign investment, (non-progressive) tax reform, and fiscal discipline (i.e. less public investment).

Notwithstanding the limitations and policy mistakes of public action in the pre-crisis period (more on this later), it has to be said that neither the pre-crisis fiscal position of those EU countries hardest hit by the crisis today (with the exception of Greece) nor the evolution of public expenditures on GDP in the past two decades tend to support the former type of explanation. The latter remains true even if one accounts for the failure of several governments to identify which part of their revenues was unsustainable in the long term, largely due to the housing bubble, and the extent to which economic stabilisers in an advanced welfare society would be affected by the crisis.

In terms of public policies, on the one hand, there is the growing realization that an overdose of macroeconomic policies cannot solve problems linked to the factors that underpin microeconomic competitiveness.

As Christian Ketels (2013) has recently put it drawing on recent research results: “Microeconomic factors are important in their own right, with an impact quantitatively comparable to that of institutional factors. Monetary and fiscal policies have an impact as well but matter less... Current policies on areas such as physical infrastructure, skills, innovation and SMEs, then, matter and the quality of these policies is not given by a location’s institutional legacy”. In other words, competitive advantage can be influenced positively by proactive policy action precisely in the areas which have been given priority in the forthcoming regulations of European Regional and Urban Policy for the 2014-2020 period by the European Commission.

On the other hand, increasing long-term productivity – the key to successful economic development efforts – requires an innovation-friendly business environment “carried out by states and regions, where many of the key drivers of competitiveness reside” (Porter, Rivkin, 2012). Moreover, recognizing “the collective nature of individual productivity (...) and not just individual talents and efforts” (Chang, 2010) is essential for understanding the need for public action, notably in the field of innovation-friendly business environments and the development of efficient national/regional innovation systems.

In short, as innovation processes are increasingly recognised as being the fruit of collective endeavours (Morgan, 2013) and complex systemic interactions – at the “intersection” – (Johansson, 2006), rather than as heroic individual ventures through linear R&D processes (often in American garages in sunny places), the public sector’s role in partnership with the private sector, academia, the R&TD world and civil society becomes the key to a successful crisis exit strategy. Thus, acknowledging that “innovation cannot be dictated, but it can be cultivated” (Sallet *et al.*, 2009) is critically important for policy-making.

In conclusion, monetary and fiscal policies have concentrated most of the economic debate during the crisis. And quite rightly so, because a reasonably healthy macroeconomic framework, inflation under control and lower interest rates in particular, as well as a functioning (systemic) financial sector injecting credit into the economy, are necessary preconditions for any innovation-related industrial policy to succeed (Landabaso, 2012). The latter is especially true in the context of less advanced countries, since the importance of microeconomic conditions for competitiveness tends to increase with the level of economic development.

Nevertheless, I would argue that trying to solve the problems of micro and meso economic competitiveness with an overdose of macroeconomic policies may be self-defeating and highly inefficient (Segura, 1993). In what follows I try to sketch a different but complementary policy response to standard macroeconomic policy recipes.

### **3. Innovation Policy as a Crisis Exit Strategy**

“Following the economic and financial crisis...there is a call for industrial policies<sup>1</sup> to strengthen specific sectors, technologies or areas of economic activity, such as advanced manufacturing, knowledge-intensive business services or the “green” economy, with the aim of fostering new sources of economic growth” (Warwick, 2013).

In this sense, there is growing recognition that the public sector can and should play a catalytic role in innovation-driven growth. Inspired by recent successes in a number of rapidly growing Asian developing countries, new structural economics, for example, clearly states that “government needs to play a facilitating role to help the private sector to overcome issues regarding coordination, externalities or public (semipublic) goods that the market will not automatically resolve in its own to achieve dynamic growth” (Lin *et al.*, 2012).

South Korea is an example of successful economic transformation through “a deliberate national development strategy which fostered industrialisation in heavy and chemical industries through sequence and complementary policy interventions” (Oecd, 2012a), where “the government supported modernisation and technological

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1. “Targeted government actions aimed at supporting production transformation that increases productivity, fosters the generation of backward and forward linkages, improves domestic capabilities and creates more and better jobs”, Oecd, 2013.

upgrading of domestic industries by gradually promoting the creation of domestic scientific and technological capabilities”.

Even on the other side of the Atlantic, driven by the aftermath and economic hangover of the financial crisis, there is fresh thinking which supports government action in the form of a “five pillars American formula” (Friedman *et al.*, 2011) where a “partnership between the public and the private sector fosters economic growth... mainly by investing in education, infrastructure and R&D”.

Others are proposing “blueprints for a real recovery” (Holstein, 2011) which will build the foundations of “the next American Economy”, where the “government should provide relatively small, targeted amounts of money to support clusters that are on the brink of establishing their technologies as full-fledged industries”, “limit research dollars to component (“generic” in European jargon) technologies”, “accelerate the commercialisation of ideas from the weapons labs and the department of Energy” and “launch a high-tech export offensive” ... all of it based on a “clear defined strategy to restructure the economy” and the creation of a “public-private vision of the country’s economic future”, since “economists do not understand the ecosystems that create wealth...” because “as macroeconomists, they do not understand what happens at the micro level”.

Still others see America’s future as lying “in a healthy, productive balance of competition and cooperation in an interconnected society” (Sachs, 2012) where “complex challenges of science and technology, higher education, modernization of infrastructure, climate change mitigation and the restoration of budget balance cannot be addressed without a careful multiyear planning process within government – embracing complexity being the key to effective planning”.

There is also growing consensus in Europe on the need to rely on the promotion of innovation to reach higher value added market segments which will allow advanced European economies to further specialise and differentiate themselves (Aglietta, Brand, 2013).

So how to set about designing and funding an innovation policy as a crisis exit strategy?

Since “the attempt to improve the fiscal prospect by cutting spending in a depressed economy – where budget deficits don’t compete for private sector for funds - can end up being counterproductive even in narrow fiscal terms” (Krugman, 2012), the issue is how to find the public funds and where to invest them while reducing the long-term debt burden.

Hence the real question boils down to how to square the circle of reducing deficits while increasing public expenditures where they are most needed to exit from the crisis. That is, how to preserve/increase growth-enhancing expenditure during fiscal consolidation processes. In other words, can we increase aggregate demand for long-term growth while in the liquidity-constrained context and in such a way that it does not add further to the debt burden?

I would argue that a positive answer to the above question lies in the elaboration of an efficient public innovation policy. A virtuous crisis exit cycle can be sparked

by such a policy, and it could work as follows: by increasing targeted government expenditure  $G$  (on innovation eco-systems and human capital skills) that leverages private co-funding  $I$  (on innovation: often intangible, long-term, risky investments) which enhances their capacity to compete in global markets (raising exports  $X$ ), output grows ( $Y$ ) supported by sustainable jobs. Thus, in actual fact, the public sector is only “advancing” money that could be (partially) clawed back later through increased tax revenue and savings on unemployment benefits, without generating? further public deficit in the long term... if this innovation policy is effectively planned and delivered

In this sense, I fully subscribe to the notion that the public sector’s role in this context of financial starvation and overburdened public deficits is not so much to stimulate demand through massive indiscriminate public investment – defined as “crude Keynesianism” below – as to target those catalytic actions that can leverage a maximum of private investment in Research and Innovation: “I have argued against short term stimulus packages...believing that instead we need a consistent, planned, decade long boost in public investments in people, technology and infrastructure...it requires careful government programs, working alongside the private sector, and good coordination with state and local government”...(Sachs, 2013).

An illustrative example of how this can work in practice is provided by recent investments of European Regional Policy in Science and Technology Parks (STPs). During 2000-2012 alone, there has been an ERDF capital expenditure on STPs throughout the EU of between €1500 million and €2000 million. This expenditure has leveraged between €2750 and €3250 million of other public expenditure and €3250 to €3750 million of private sector investment. That is, expenditure by the ERDF of €1500 to €2000 million has triggered a total STP capital investment (including the ERDF) of €7500 to €8000, with nearly half of it deriving from private sources (EC, 2013a, 2013b). Most of these investments have been made by and for manufacturing firms in STPs with above-average propensities to innovate and export. A similar case can be argued for firms in clusters or those closely connected to technology centres, since both clusters and technology centres are traditionally key public policy targets<sup>2</sup> and are directly linked to firms with a well above average tendency to innovate<sup>3</sup> and export, as demonstrated by several recent evaluations, in the cluster literature in particular (Rowe, 2013, Berrer *et al.*, 2011).

If public investment is focused through a place-based innovation policy on a number of STPs, clusters and technology centres, there may ensue a substantial

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2. “Government has a crucial role to play...no cluster has succeeded without at least some input from government” (The Economist Intelligence Unit, 2011). “The majority of cluster management organizations (of the 143 European clusters reviewed) depend to more than 60% on public funding” (Lämmer-Gamp *et al.*, 2011).

3. “Industries participating in a strong cluster register higher employment growth as well as higher growth of wages, number of establishments and patenting...new regional industries emerge where there is a strong cluster environment...overall these findings highlight the important role of cluster-based agglomeration in regional economic performance” (Delgado *et al.*, 2012).

private investment leverage effect<sup>4</sup> which, in time, strengthens the innovative capacity of firms and their ability to export, particularly in higher value-added market niches, away from price-based competition, within a highly competitive global economy. In this way, an initial public investment push can leverage private investment that enhances the competitive position of firms in international markets, thus increasing aggregate demand and crowding in private investments with positive spillovers in public accounts.

#### 4. Research and Innovation Strategies for Smart Specialisation

Hence the question is whether we can do something else besides macro-economic recipes through public investment to develop a crisis exit strategy. That is, can we do something practical in the form of public investment that affects the real economy?

Since 2009, and in the aftermath of the global financial and economic crisis, the concept of smart specialisation has found echoes in Oecd discussions on “New Industrial Policy”, “New Sources of Growth” and “New Approaches to Economic Challenges”. In this sense “smart specialisation is a regional policy framework for innovation driven growth” (Oecd, 2012b).

Smart specialisation implies that a member state or region identifies and selects – on the basis of a bottom-up and top-down priority setting process – a limited number of priorities for knowledge-based investments focusing on regions’ strengths and comparative advantages. This approach will hopefully help regions realise their innovation potential and refocus their industrial and knowledge assets in the direction of emerging industries and services and international markets. The development of research and innovation strategies for smart specialisation will become mandatory for member states and regions that plan to invest structural funds in research, innovation and ICT take-up measures as of 2014.

Research and Innovation Strategies for Smart Specialisation – RIS<sup>3</sup> – can be defined as a planning process guided by an economic transformation agenda based on 4Cs:

- (Tough) Choices: limited number of priorities on the basis of own strengths and international specialization – avoiding duplication and fragmentation in the European R&D Area taken as a whole.
- Competitive Advantage: mobilize talent by matching R&I capacities and business needs through an entrepreneurial discovery process.
- (Critical Mass) Clusters and Connectivity (McCann, Ortega-Argilés, 2014, this issue): aim at developing world-class clusters and provide arenas for related variety and cross-sectorial links, which can drive specialized technological diversification.

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4. The most recent evaluation of the Basque network of technology centres, possibly the largest in the EU at regional level, shows that private investment accounted for 43% of the total R&I investments made by the centres (Orkestra, 2013).

- Collaborative Leadership: efficient innovation systems as a collective endeavour based on public-private partnerships (quadruple helix) allowing for experimentation and giving voice to un-usual suspects (with good ideas).  
...and last but not least, a C in the best political economy tradition: Common sense.

It is important to underline that the 4Cs which form the core of this economic transformation agenda are context-specific (place-based). They should match the characteristics of already-established innovation patterns in each region, in line with what some authors have called “smart innovation policies” (Camagni *et al.*, 2014, this issue), if they are to be effective.

In the words of the founding fathers of the concept of smart specialization, “it is a concept which emphasizes the principle of prioritization in a vertical logic (to favor some technologies, fields, population of firms) – beyond the horizontal programmes essential to improve framework conditions and general capabilities, and defines priorities and a method to identify such desirable areas for innovation policy intervention” (Coffano, Foray, 2014, this issue). Moreover, Foray stresses that the essence of entrepreneurial discovery, which is the true DNA of this policy concept, “is the generation of informational spillovers (effects of demonstration and emulation) that in themselves represent a rationale for public funding”, in line with the recent literature on “self-discovery” and informational externalities (Hausman, Rodrik, 2003).

In this context, what “specialization” actually means requires further explanation to prevent misunderstanding: it is definitely not about specialization in a narrow sense in a sort of “neo-Ricardian” world – not a planning doctrine that requires a region to specialize in a particular set of industries or sectors (Coffano, Foray, 2014, this issue).

Specialization in the RIS<sup>3</sup> sense means avoiding duplication and fragmentation of effort with scarce public resources within the European Union, thus helping to deepen the single market through “open” RIS<sup>3</sup> and inter-regional connections across the EU in order to create critical mass. In this sense, to be stressed is that “specialization and resource concentration is a way of obtaining scale economies in R&D investment; at the same time, recent literature has emphasized the role of variety at local level when the aim is that of promoting radical innovations” (Iacobucci, 2014, this issue). Thus, local context – in a place-based approach – will determine the policy balance and mix between broader innovation policy (of a more horizontal character) and support pure R&D (of a more vertical character).

Specialization also means being selective and supporting R&I activities that are relevant and match existing conditions and assets (e.g. based on evidence-based policy evaluation, sound SWOT analysis, etc. within the process of entrepreneurial discovery), and which break away from established lobbies and rent-seekers. Such R&I activities are also relevant in that they can help transform the existing economic structure in order to face globalization. That selection should be made of R&I activities with the highest potential for knowledge spillovers to irrigate large sections of the economy, thus promoting related-variety and avoiding the risk of

“lock-in”. In other words, “the essence of entrepreneurial discoveries is the generation of informational spillovers (effects of demonstration and emulation) that in themselves represent a rationale for public funding” (Coffano, Foray, 2014, this issue).

In short RIS<sup>3</sup> is neither “coffee for all” nor “picking winners from above”. It is not about selecting firms or sectors but the research and (broad) innovation activities and/or generic technology(ies) that can help a regional economy diversify into higher value-added markets – understood as “specialized diversification” (McCann, Ortega-Argiles, 2011, 2014) – modernize/rejuvenate traditional sectors or exploit new/emerging economic activities (e.g. radical innovation through technology start-ups).

In this context, it is important to understand that “Although initially relatively simple as a concept – the concentration of public resources in knowledge investments on particular activities in order to strengthen comparative advantage in existing or new areas – the conceptual and policy implications of smart specialisation are far more complex and transcend three distinct areas: i) the underlying role of scientific, technological and economic specialisation in the development of comparative advantage and more broadly in driving economic growth; ii) policy intelligence for identifying domains of present or future comparative advantage and; iii) governance arrangements that give a pivotal role to regions, private stakeholders and entrepreneurs in the process of translating specialisation strategies into economic and social outcome (Oecd, 2012b).

Moreover, what distinguishes smart specialisation from traditional industrial and innovation policies is mainly the process defined as “entrepreneurial discovery” - an interactive process in which market forces and the private sector are discovering and producing information about new activities and the government assesses the outcomes and empowers those actors most capable of realising the potential (Foray, Goenaga, 2013; Hausmann, Rodrick, 2003). Hence smart specialisation strategies are much more bottom-up than traditional industrial policies (Oecd, 2012b).

In this regard, it is worth mentioning that the smart specialization approach has much to gain by drawing lessons from the “constructed advantage” literature, which emphasises the importance of “policy encouraging crossovers between related industries that can provide complementary assets...taking region-specific intangible assets as a starting point...and promoting learning processes that are context specific” (Boschma, 2014). The “entrepreneurial discovery process” needs to pay especial attention to new opportunities to exploit “related variety” (the variety of industries in a region that share a common knowledge base) as a source of specialized diversification.

In very practical terms, the European Commission has established an inter-regional learning platform where nearly 140 regional and national governments exchange policy practice in the elaboration of RIS<sup>3</sup>, including numerous peer review sessions – a unique blend of a “bottom-up” and “top-down” initiatives that can be considered experimental policy learning at EU level. Moreover, the EU Commission has produced a number of methodological guides relative to key horizontal



RIS<sup>3</sup> fields, including the green economy, university-enterprise cooperation, clusters, SME funding, incubators, social capital, technology parks, etc. including over a hundred real-life innovation policy examples from more than twenty countries to encourage discussion and learning<sup>5</sup>.

Moreover it has mobilised for the first time more than a hundred top academics and policy advisers to help regional and national governments in the elaboration of the their RIS<sup>3</sup> in order to bridge the dangerously widening gap in the European Union between practitioners and academics.

## **5. Conclusions**

This paper has argued that in order to tackle the current crisis effectively, it is necessary to develop new forms of public entrepreneurship capable of developing more selective policy approaches that deal with the microeconomic foundations of competitiveness in the real economy.

In this regard, the paper has maintained that a successful crisis exit requires an agenda complementary to sound macroeconomic policies in the form of research and innovation strategies for smart specialization which aim at economic transformation and are tailor-made to specific local conditions – a place-based approach.

Necessary for this to happen is a different and better public sector able to develop good governance structures for the design and implementation of complex innovation policies: that is, structures filled with economic development professionals working hand in hand with the private sector and other key players of the quadruple helix which pursue public goals in the form of economic transformation through innovation towards higher-value added markets and sustainable quality jobs. This is something that today is hard to find except in a few development or innovation agencies, technology centres, technology parks, and the like.

As Martin Wolf, chief economic commentator of the Financial Times (Wolf, 2013a, 2013b) sharply puts it: “Growth and output per head determines living standards. Innovation determines the growth of output per head. But what determines innovation?”... only to reply: “Yes, innovation depends on bold entrepreneurship. But the entity that takes the boldest risks and achieves the biggest breakthroughs is not the private sector; it is the much-maligned state” quoting a recent book – “The Entrepreneurial State” – by Mariana Mazzucato, and concluding that “the failure to recognize the role of the government in driving innovation may well be the greatest threat to rising prosperity.”

The single most important factor for the success of such policies is an entrepreneurial public sector able to take risks and experiment, one which is professional, accountable and works with the right system of incentives for public good (delivery); a public entrepreneur that avoids some of the mistakes of the past related to old industrial policies (Ahner *et al.*, 2011, Landabaso, 2012), including both

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5. <http://s3platform.jrc.ec.europa.eu>.

state “dependency” inertia (Morgan, 2013) and capture by rent-seeking and well established and interest groups.

In terms of the public sector’s role as a risk enabler, it should provide leadership and vision, rather than control, and it should catalyse economic development by promoting new ideas and partnerships with the private sector: not “for them but without them”. Support schemes must be long-lasting, understandable and readily accessible by SMEs

In conclusion, I have argued that microeconomic competitiveness problems cannot be efficiently tackled by overdoses of macroeconomic or sector-based policies, but rather by integrated, place-based innovation policies. I believe that innovation has a strong territorial dimension and that there is no “one size fits all” policy solution. Regional diversity is an asset that advocates different routes to growth through innovation.

It can thus be argued that research and innovation strategies for smart specialization are an appropriate policy tool to capture the potential that lies in regional diversity by opening the innovation game to all, and by levelling the playing field. Not a silver bullet but a realistic, difficult-to-implement policy avenue that puts the real economy at the centre of the policy effort to take us out of the crisis and prepare us for stiff? competition in a globalized economy.

## References

- Aglietta M., Brand T. (2013), *Un New Deal pour l’Europe*. Paris: Odile Jacob.
- Ahner D., Landabaso M. (2011), *Regional Policies in Times of Austerity*. *ERIEP, European Review of Industrial Economics and Policy* n. 2, itopics.
- Berrer H., Borrmann J., Grohall G., Helmenstein C., Kleissner A. (2011), *The Economic Impact of the Lower Austrian Clusters*. Study commissioned by Ecoplus. Vienna: Economica Institute of Economic Research. ([http://www.tci-network.org/media/asset\\_publics/resources/000/004/474/original/The\\_Economic\\_Impact\\_of\\_the\\_Lower\\_Austrian\\_Clusters\\_2012.pdf](http://www.tci-network.org/media/asset_publics/resources/000/004/474/original/The_Economic_Impact_of_the_Lower_Austrian_Clusters_2012.pdf))
- Boschma R. (2014), *Constructing Regional Advantage and Smart Specialisation: Comparison of Two European Policy Concepts*. *Scienze Regionali, Italian Journal of Regional Science*, 13, 1: 51-68.
- Camagni R., Capello R., Lenzi C. (2014), *A Territorial Taxonomy of Innovative Regions and the European Regional Policy Reform: Smart Innovation Policies*. *Scienze Regionali, Italian Journal of Regional Science*, 13, 1: 69-106.
- Chang H. J. (2010), *23 Things they Don’t Tell you About Capitalism*. London: Allen Len Ed.
- Coffano M., Foray D. (2014). *The Centrality of Entrepreneurial Discovery in Building and Implementing a Smart Specialisation Strategy*. *Scienze Regionali, Italian Journal of Regional Science*, 13, 1: 33-50.

- Delgado M., Porter M. E., Stern S. (2012), *Clusters, Convergence, and Economic Performance*. Cambridge, MA: National Bureau of Economic Research, *NBER Working Paper* n. 18250.
- EC-European Commission\* (2013a), *Guide to Social Innovation*.
- EC-European Commission (2013b), *Lessons from a Decade of Innovation Policy*. DG Enterprise and Industry, June 2013. Brussels: EC (Last access October 2013 - [http://ec.europa.eu/enterprise/policies/innovation/files/decade-innovation-policy-full-study\\_en.pdf](http://ec.europa.eu/enterprise/policies/innovation/files/decade-innovation-policy-full-study_en.pdf)).
- Foray D., Goenaga X. (2013), *The Goals of Smart Specialisation*. RIS<sup>3</sup> Policy Brief Series, n. 01/2013. Brussels: EU Commission, Joint Research Centre Scientific and Policy Reports.
- Foray D., Rainoldi A. (2013), *Smart Specialisation Programmes and Implementation*. RIS<sup>3</sup> Policy Brief Series, n. 02/2013, Joint Research Centre Scientific and Policy Reports. Brussels: EC. (Last access October 2013 - <http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/28709/1/jrc82224.pdf>).
- Friedman T. L., Mandelbaum M. (2011), *That Used to be US*. Boston: Little, Brown Ed.
- Hausmann R., Rodrik D. (2003), Economic Development as Self-discovery. *Journal of Development Economic*, 72, 2: 603-633.
- Holstein W. J. (2011), *The Next American Economy: Blueprint for a Real Recovery*. New York: Walker & Company.
- Iacobucci D. (2014), Designing and Implementing a Smart Specialisation Strategy at Regional Level: Some Open Questions, *SR-Scienze Regionali – Italian Journal of Regional Science*, 13, 1: 107-126.
- Johansson F. (2006), *The Medici Effect: What Elephants & Epidemics Can Teach Us About Innovation*. Harvard Business Review Press, October.
- Ketels C. (2013), Recent Research on Competitiveness and Clusters: What are the Implications for Regional Policy?. *Cambridge Journal on Regional Economy and Society*, 6, 2: 269-284.
- Krugman P. (2012), *End this Depression Now*. New York: Norton.
- Lämmer-Gamp T., Meier G., Alslev T. (2011), *Clusters are Individuals: Creating Economic Growth Through Cluster Policies for Cluster Management Excellence*. Berlin: VDI/VDE Innovation + Technik GmbH Ed. (Last access October 2013 - <http://www.vdivde-it.de/publikationen/studien/clusters-are-individuals>).
- Landabaso M. (2012), What Public Policies Can and Cannot Do for Regional Development. In: Cooke P., Parrilli M. D., Curbelo J. L. (eds.) *Innovation, Global Challenge and Territorial Resilience*. Cheltenham: Edward Elgar.
- Lewis M. (2011), *The Big Short: Inside the Doomsday Machine*. New York: Norton.
- Lin J. Y., Rosenblatt D. (2012), Shifting Patterns of Economic Growth and Rethinking Development. *Journal of Economic Policy Reform*, 15, 3: 171-194.
- McCann P., Ortega-Argiles R. (2011), *Smart Specialisation, Regional Growth and Applications to EU Cohesion Policy*. Gröningen: Faculty of Spatial Sciences, University of Groningen, *Economic Geography Working Paper* 2011. (Last access October 2013 - [http://ipts.jrc.ec.europa.eu/docs/s3\\_mccann\\_ortega.pdf](http://ipts.jrc.ec.europa.eu/docs/s3_mccann_ortega.pdf)).

- McCann P., Ortega-Argilés R. (2014), The Role of the Smart Specialisation Agenda in a Reformed EU Cohesion Policy. *Scienze Regionali, Italian Journal of Regional Science*, 13 1: 15-32.
- Morgan K. J. (2013), Path dependence and the state: the politics of novelty in old industrial regions. In: Cooke P. (ed.), *Re-framing Regional Development: Evolution, Innovation and Transition*. London: Routledge. 318-340.
- OECD (2012a), *Industrial Policy and Territorial Development: Lessons from Korea*. Paris: Oecd, Development Centre Studies (Last access October 2013 - [www.oecd.org/dev/partnerships-networks/50560264.pdf](http://www.oecd.org/dev/partnerships-networks/50560264.pdf)).
- OECD (2012b), *Working Party on Innovation and Technology Policy (TIP). Draft Synthesis Report on Innovation Driven Growth in Regions: The Role of Smart Specialisation*. Referred to in the 2011-2012 PWB as “Report on Global Knowledge and Innovation Networks and Policy Implications for National Specialisation in Research and Innovation. Paris: Oecd (Last access October 2013 - [www.oecd.org/sti/innovation](http://www.oecd.org/sti/innovation)).
- OECD (2013), *Perspectives on Global Development 2013: Industrial Policies in a Changing World*. Paris: Oecd, Development Centre Studies. (Last access October 2013 - [www.oecd.org/dev/pgd/pgd2013.htm](http://www.oecd.org/dev/pgd/pgd2013.htm)).
- Orkestra (2013), *Informe de Competitividad del País Vasco: transformación productiva para el mañana*. Deusto: Universidad de Deusto.
- Porter M. E., Rivkin Jan W. (2012), The Looming Challenge to U.S. Competitiveness. *Harvard Business Review*, March.
- Rowe D. N. E. (2013), *Setting-up, Managing and Evaluating EU Science and Technology Parks*. Brussels: EU Commission, forthcoming.
- Sachs J. (2012), *The Price of Civilization*. London: Vintage Ed.
- Sachs J. (2013), *Professor Krugman and Crude Keynesianism*. HUFF Post, U.S. Edition, 3/9/13.
- Sallet J., Paisley E., Masterman J. (2009), *The Geography of Innovation: The Federal Government and the Growth of Regional Innovation Clusters*. (Last access October 2013 - [www.scienceprogress.org](http://www.scienceprogress.org)).
- Sandel M. J. (2012), *What Money Can't Buy: The Moral Limits of Markets*. London: Penguin Books.
- Segura J. (1993), Situación actual y perspectivas de la economía española. *Simposio sobre la economía catalana*, February.
- Shaxon N. (2012), *Treasure Islands: Uncovering the Damage of Offshore Banking and Tax Havens*. London: Palgrave MacMillan.
- The Economist Intelligence Unit (2011), *Fostering Innovation-led Clusters: A Review of Leading Global Practices*. London: EIU.
- Warwik K. (2013), *Beyond Industrial Policy: Emerging Issues and New Trends*. Paris: *Oecd Science, Technology and Industry Policy Papers* n. 2. Doi: 10.1787/5k4869clw0xp-en.
- Wolf M. (2013a), *Fixing Global Finance: How to Curb Financial Crisis in the 21<sup>st</sup> Century*. New Haven, CT: Yale University Press.

Wolf M. (2013b), The State is the Real Engine of Innovation. *Financial Times, Book Review*, August 4.

