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European Growth: a Crisis Exit Strategy

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ABSTRACT – *While the European Union (EU) is facing a further aggravation of the recession, accompanied by the consequences of the 2008 global financial crisis, the support for economic activities is proving to be more than necessary. Primary concerns of member states must be based on increased efforts in competitiveness, employment, innovation, and assistance for small and medium-sized enterprises (SME), to boost economic growth on a short-term basis or on a longer-term horizon. In this regard, this article firstly suggests that the temporary support for economic activities is absolutely necessary and the possible arrangements are examined in detail. In addition, more emphasis must be put on innovation, as it plays a crucial role for economic growth. Particular attention is also drawn to SMEs, their potential impact on the productive fabric and their financial constraints. The concluding remarks are focused on the European market size, and the antagonism between competition policy and industrial policy is highlighted.*

KEY WORDS: *economic growth, European Union, innovation, small and medium-sized enterprises, industrial policy*

Introduction

In the light of some historical macroeconomic results that are deemed unsatisfactory and the current economic policies, one can confirm that growth is not a high-priority for European Union (EU) and its member states. The evidence is obvious for them, especially since it is within the competence of the countries themselves to reduce unemployment, as stated in the Treaties. Spain, Greece, Italy and Portugal illustrate the singular and important obstinacy of fiscal orthodoxy among most Southern European countries (as well as France), leading them to a vicious circle of recession, and even depression. Concerning the EU (the level at which we are developing the following reflection), the situation is similar. In the framework of financial assistance mechanisms, and more generally the Stability and Growth Pact (SGP), the balancing of public accounts has become a central obsession for both the European Commission and the European Central Bank (ECB). However, the Union and its member states have not always been as little concerned about economic growth, both at the cyclical level as well as the structural level.

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Firstly, at the time of the Great Recession of 2008-2009, the necessity of an economic boost in Europe was shared by nearly all members. The Commission, clearly convinced that the poor economic circumstances resulted from a shortfall in demand, wanted to promote fiscal policies inspired by Keynesian thought. Conscious that the EU budget, in terms of financial means (capped at 1.27% of EU GDP), was not adapted to a quick and massive economic recovery effort through demand, the Commission worked on coordinating national economic stimulus plans and ensuring their consistency in all member states. By avoiding free riding behaviors, the Commission will also modestly contribute to the overall endeavor in terms of expenditures.

Secondly, at the structural level, the Commission has been the lynchpin of the Lisbon strategy since 2000. With very high ambitions in terms of competitiveness, research and development (R&D), employment and growth in Europe[2], the failure of the Lisbon strategy has been sufficiently explored to not dwell on it[3]. However, European authorities have deemed necessary to give it a direct continuation in the early years of this decade through the Europe 2020 strategy. Even though we cannot explain why the new initiative would ignore its predecessor's mistakes (lack of cohesion between the national policies, inadequate range of incentive and coercive tools, weak governance), it is a laudable desire. Concerns related to growth potential in the Union seem unquestionably well founded.

The following work is based on the belief that economic growth must take the priority in European public policies, both for the Union and its member states, at the cyclical level as well as the structural level. Furthermore, we are of the view that there is no inherent incompatibility between supporting aggregate demand in the short-term and strengthening growth potential in the medium- to long-term. To support these beliefs, we emphasize that it has become an absolute necessity to quickly bolster economic activity in Europe (section 2). We recall that a growth strategy can also be an effective process for a public-sector deleveraging. In a third section, we discuss the possible *modus operandi* of a demand stimulus, which leads us to favor some forms of public investment. In a fourth section, we emphasize the role of innovation as a key driver of economic growth. We will then focus on the incorporation of small and medium-sized enterprises – following the example of the German *Mittelstand* – within the productive fabric of Europe (section 5). Lastly, as concluding remarks, we will focus on the European market size and the exploitation of possible scale effects.

A Temporary support to economic growth

The analysis of the EU macroeconomic path since the outbreak of the 2007 financial crisis is relatively easy. This is particularly true in the Euro area. What is intriguing is the incapability of main economic policy actors (member states, European commission, ECB,

[2] This strategy has been agreed upon following the Lisbon summit of 2000. Its aim was to make the EU the most competitive economy in the world, and the most efficient in terms of innovation as well as information and communication technologies.

[3] The midterm "Kok report" (2004) had already provided a severe and worrying conclusion regarding the ambitious objectives of the Lisbon strategy and the efficiency of the "open method of coordination".

IMF for countries under financial assistance) to make the proper diagnosis and to find the appropriate remedy.

Table 1. GDP Growth

	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU	2.2%	3.4%	3.2%	0.4%	-4.5%	2.0%	1.6%	-0.4%	0.1%
France	1.8%	2.5%	2.3%	-0.1%	-3.1%	1.7%	2.0%	0.0%	0.2%
Germany	0.7%	3.7%	3.3%	1.1%	-5.1%	4.0%	3.3%	0.7%	0.4%
United Kingdom	3.2%	2.8%	3.4%	-0.8%	-5.2%	1.7%	1.1%	0.3%	1.7%
Finland	2.9%	4.4%	5.3%	0.3%	-8.5%	3.4%	2.8%	-1.0%	-1.4%
Spain	3.6%	4.1%	3.5%	0.9%	-3.8%	-0.2%	0.1%	-1.6%	-1.2%
Greece	2.3%	5.5%	3.5%	-0.2%	-3.1%	-4.9%	-7.1%	-7.0%	-3.9%
Ireland	6.1%	5.5%	5.0%	-2.2%	-6.4%	-1.1%	2.2%	0.2%	-0.3%
Portugal	0.8%	1.4%	2.4%	0.0%	-2.9%	1.9%	-1.3%	-3.2%	-1.4%
United States	3.4%	2.7%	1.8%	-0.3%	-2.8%	2.5%	1.8%	2.8%	1.9%
Japan	1.3%	1.7%	2.2%	-1.0%	-5.5%	4.7%	-0.5%	1.4%	1.6%

Source: Eurostat

The Great Recession of 2008-2009 is undoubtedly a demand-side crisis, and not a supply-side problem, as Krugman (2009) underlined at an early stage. Banking and financial problems raised by the subprime mortgage crisis have spread to the mainstream economy, through a credit crunch and negative wealth effects caused by the collapse of some asset markets. From these observations, fairly consensual, Keynesian stimulus plans have emerged, as mentioned in the introduction.

These plans to support aggregate demand have produced the expected effects. On one hand, economic activity did not decline dramatically as it did during the 1930's Great Depression and on the other hand, the early stages of economic recovery have appeared in 2010 (see table 1). However, the turning point concerning fiscal policies has proved to be disastrous in the EU, and particularly in the Euro area. These policies have prematurely prioritized a return to equilibrium of public accounts, with the aim of reducing sovereign debt. The consequences were immediate. Deprived of the support of public expenditure, the economic activity slowed down and declined nearly the entire Euro area. This was particularly true in countries under the Troika's supervision (Greece, Ireland and Portugal). Because of market pressure and European budgetary rules, this also occurred in other countries, which were hoping for a budgetary consolidation (Spain, Italy).

The turning point concerning fiscal policy stance in Europe naturally coincides with the outbreak of the Greek crisis at the end of 2009 and the beginning of 2010. At that time, the historical high level of public debt in the European monetary union (EMU) appeared to be an invalidating phenomenon that prohibits maintaining expansionary economic policies. This argument is a red herring in several ways.

The average debt (as a percentage of GDP) is higher in the United States or in the United Kingdom than in Europe, not to mention Japan. The problem stems less from the debt itself than its cost, largely determined by mimetic capital markets, and the institutional structure

of the Euro area, which is not a federal government. In this context, it needs to be taken into consideration that EMU member states acquire debt in a currency other than their domestic currency. Furthermore, the Euro area countries are under the auspices of a central bank other than their official lender of last resort, unlike the Federal Reserve in the United States or the Bank of England in the United Kingdom.

Table 2. Unemployment in Europe, percentage

	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU	9.0	8.2	7.2	7.0	9.0	9.6	9.6	10.4	10.8
France	8.9	8.9	8.0	7.5	9.1	9.3	9.2	9.8	10.3
Germany	11.3	10.3	8.7	7.5	7.8	7.1	5.9	5.5	5.3
United Kingdom	4.8	5.4	5.3	5.6	7.6	7.8	8.0	7.9	7.5
Finland	8.4	7.7	6.9	6.4	8.2	8.4	7.8	7.7	8.2
Spain	9.2	8.5	8.2	11.3	17.9	19.9	21.4	24.8	26.1
Ireland	4.4	4.5	4.7	6.4	12.0	13.9	14.7	14.7	13.1
United States	5.1	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4
Japan	4.4	4.1	3.9	4.0	5.1	5.1	4.6	4.3	4.0

Source: Eurostat

Moreover, from a macroeconomic perspective, the well-known fact that a growth initiative might be a valuable debt reduction strategy is neglected by European authorities. The historical example of the United Kingdom's experience after the Second World War proves it. The country had emerged from the worldwide conflict with a massive sovereign debt (more than 200% of GDP) but had succeeded to reduce it through three steps – that are ignored by contemporary Mediterranean Europe. The first element is moderate inflation (4 to 8% per year) that erodes the real value of the debt[4]. The second one is time frame: the public debt of the UK returned to acceptable levels not after a few years, but several decades later. Finally, the strong growth registered during the post-war economic boom had led decisively to reduce the sovereign debt ratio.

The famous equation that links this ratio (d_t) to the primary government balance (b_t as a percentage of GDP), GDP growth (g) and to the average interest rate on debt (i_t) sums up itself the macroeconomic debate in the Euro area (see box 1). Those Krugman (2012) calls "the austerians" seek to reduce in priority the primary budget balance (b_t), while hoping that capital markets will approve this – orthodox – choice with lower interest rates (i_t). The Italian – and even further the Spanish – experience demonstrates that the success of this policy is by no means guaranteed. In addition, these countries have exacerbated unemployment (see table 2) and, by doing so, they have reduced their growth potential, as a long period out of the job market plays a strong role in de-training and de-motivating employees.

Conversely, a policy to exit the debt crisis would offer a twofold advantage. It would seek to reduce the debt-to-GDP ratio without depending excessively on global finance – nor be limited to future fiscal balances with a deadly policy spiral of "austerity-recession-reinforced

[4] Germany refuses to consider it (even in the writings of the IMF's chief economist Olivier Blanchard).

austerity" – and it will help to provoke demand stimulus that is requested by a majority of macroeconomists.

Box 1. The dynamics of the debt-to-GDP ratio

Let D_t denote a country's public debt at year t. Y_t refers to its GDP, i_t stands for the interest rates on debt and B_t is the primary budget balance (excluding interest expenditure and with B>0 indicating a surplus). By construction, public debt is as follows:

$$D_t = D_{t-1} + i_t \,.\, D_{t-1} - B_t$$

The evolution of the debt-to-GDP ratio is given by:

$$\frac{D_t}{Y_t} = \frac{D_{t-1}}{Y_t}\,(1 + i_t) - \frac{B_t}{Y_t}$$

We use lowercase letters to refer to GDP ratios and g represents growth rate.

$$d_t = d_{t-1} \,.\, \frac{1+i}{1+g} - b_t$$

All other things remaining equal, the debt ratio decreases in case of primary surpluses ($b_t > 0$). However, its dynamic is also governed by the comparison between the economy's growth rate and the interest rate on debt. As long as i_t is less than g, the debt ratio may decrease, even without primary surpluses.

Conversely, when the cost of debt is below the growth rate, the ratio can increase even with an equilibrium on the primary budget balance (known as the snowball effect). The necessary surpluses to simply stabilize d_t become increasingly higher.

In the following discussion, we examine in what extent a strategy in favor of economic growth could be organized in the Euro area. We also demonstrate how it should be accompanied by a structural policy designed to enhance potential growth.

A Growth strategy coordinating short and long term objectives

The first obstacle, unfavorable to Keynesian policies in Europe, is the weak macroeconomic governance system in the Euro area. Ineffective during normal times, it becomes a tremendous handicap when a serious crisis occurs. It should be noted that there is an apparent lack of authority and reactivity of the Economic and Financial Affairs Council (Ecofin) and the Eurogroup. The macroeconomic decision-making process itself is lacking in the Euro area. This is a serious concern, and it is perceived as such by main partners[5]. The total absence of exchange rate policy illustrates this fact ably (Kauffmann 2013).

More fundamentally, the fiscal policy framework of member states is problematic. Concerning the SGP, even though it requires an appropriate monitoring of sovereign debt

[5] The famous remark attributed to H. Kissinger "Who do I call if I want to speak to Europe?" still applies today, especially for the Euro area.

ratios, it has capped public deficits at 3% of GDP in a caricatural manner. In addition to the fact that this threshold percentage has no serious macroeconomic justification, it applies to a balance that is not adjusted for the cyclical position of an economy. As we currently observe, this may lead countries near recession to reduce their public expenditure or to raise their taxes to comply with the pact, which is procyclical. Far from correcting these problems, the 2011 reforms, which are referred as the "six-pack", have reinforced the disciplinary function of law as well as the threat of sanctions in the event of failure.

In addition to the stability pact, the member states of the Euro area have adopted in 2012 a new Fiscal Compact. The Treaty on Stability, Coordination and Growth (TSCG) introduces two new rules imposed on the member states, which are likely to cause deleterious effects on public expenditure. The first constraint is the debt brake, with a maximum structural deficit of 0.5% of GDP imposed on the signatory countries. The second constraint is the introduction of a form of automatism concerning the reduction of sovereign debt, once it exceeds the threshold of 60% planned by the SGP.

The combined effects of the SGP and the TSCG on fiscal policies have been devastating in the Euro area: the first one prevents the free play of automatic stabilizers in case of severe cyclical downturns; the second prohibits any feasible discretionary stimulus. It is evident that a European growth strategy will have to overcome these inconsistent constraints. The invocation of exceptional circumstances would temporarily suspend the application of these laws, as it has been done for the SGP during the Great Recession.

It should be recognized that the second obstacle to a European growth policy is Germany itself, for several reasons. First of all, for the Euro area, this country has demonstrated some of the highest macroeconomic performance. Therefore, the need for an economic stimulus through demand is less important than elsewhere. However, this situation is evolving since Germany's economic growth continues to slow down, driven by weak economic conditions in most of its neighboring countries, which are also its export customers. This leads to the second reason why Germany appears as a problem: its growth strategy is based on exports and is regularly held up as a model. The "internal devaluation" strategy (reduction of production costs and prices, especially through lower wages) has been recommended to southern European countries – through the so-called Hartz reforms – as it is supposed to be Germany's cornerstone to its current success. This kind of statement contains a twofold error, which can ironically be analyzed as a Kantian approach. Firstly, an internal devaluation strategy has more chance to succeed if it is performed in isolation, and in a context of sustained growth, as it was the case for Germany in the early 2000s. The current situation is different: a race to the bottom in costs is simultaneously prescribed to several countries, and in a recessionary environment. Secondly, if all Euro area countries had based their growth strategy on exports like Germany, we would have to wonder where the net importers are. This is the reason why, in the following discussions, we rule out the crisis exit strategy based on the "germanization" of the Euro area, which is an unfounded fallacy. The different components of aggregate demand that need to be supported are neither final consumption expenditure nor exports, but public and private investment[6].

[6] The important question of the exact funding arrangements is further discussed below (project bonds, new European credits, EIB loans, etc).

These measures to support economic activity are first and foremost, by their very nature, short-term measures, designed to strengthen effective growth. From a medium-term perspective, priority should be given to investment for several reasons. The first one is that investment will ensure future economic gains, as long as selected and financed projects are productive. The second reason – which is at least as fundamental – is that the impact of this demand component will directly combine short-term objectives to boost economic growth with long-term objectives. The last one is related to the proven existence of sectors that lead to a public stimulus for structural reasons.

The Commission has identified several potential areas of intervention (railway networks, digital economy, energy, etc.) with a view to support growth and the internal market (European Commission, 2012). Rather than perceive them – like European authorities – as a way to reinforce competition and to lower internal borders, we believe that collective investments and private investments – and consequently *short-term* demand – should be explicitly supported, as well as, through them, other key factors for *future* growth such as innovation.

Innovation, a key driver for economic activity

Highlighted by several studies, we consider innovation a major source of economic development in modern times (Veblen, 1898; Schumpeter, 1911). Evolutionary economists have understood this in a comprehensive manner, through the concept of innovation systems (Freeman,1987), as a network of organizations that creates new processes, subsequently used socially and economically, thereby promoting growth, employment, competitive positions of nations, and business development.

A theoretical approach of innovation

The new endogenous growth theories, developed in the 1980s, have given to innovation a central role in their models (Romer,1986; Lucas, 1988; Aghion et al., 1998). Technological adaptation and innovation are presented as the key drivers for the long-term growth of an economy, and productivity growth is explained by Schumpeter's "creative destruction" phenomenon, as innovations have the capacity to accelerate the obsolescence of existing technologies and to implement more efficient processes. These new theories have offered a better understanding of innovation and its role on a country's economic performance, even though their interpretations are often considered simplistic by some economists. Among those expressing criticism is Jones (1995), who noticed that although the number of scientists and engineers involved in R&D has strongly increased, the productivity growth had not been significant. Endogenous growth approaches present a basic vision of the innovation process, but have nevertheless highlighted its role within an economy.

Many studies of the technological frontier as well as of imitation and innovation schemes have been substantially extended and have provided us with a better understanding of innovation as a whole, combining both institutional and innovation dynamics. The relationship between institutions and new processes affects a country's economic performance (North, 1998). Structural policies may vary according to whether growth regimes are characteristic of a catching-up economy or not, and their impacts on productivity

growth depend on the distance from the technological frontier, usually symbolized by the United States. For an economy that is lagging behind technologically, growth sources are indeed capital accumulation and imitation; while more advanced countries enjoy economic growth where innovation is the main driver, with intense competition, a flexible labor market and a sustained investment in higher education (Acemoglu et al. 2006). An economy that is near the technological frontier – like European Union – needs to exploit its innovation potential and to invest more in higher education to put the economy back on the path of growth (Aghion, Cohen 2004). A supply of skilled labor may induce companies to invest more in R&D; conversely, an increase in innovative activities and in the R&D sector generally encourages further efforts in education and qualification (Romer,2001). The complement between higher education policy and innovation policy could fuel economic growth and increase the low level of R&D expenditures in the EU.

Insufficient incentives to innovate

After the post-World War II economic expansion, the EU has registered poor macroeconomic performance. While it is considered a key to a sustained and sustainable growth, the low innovation capacity partly explains these disappointing results. The United States and Japan have invested considerably in R&D, while Europe has lagged behind. In the 1990s, the United States had intensified their efforts to enhance new technological knowledge and Japan had invested in basic research, whereas a paradox had emerged among European countries. For many years, member states focused on a rather archaic division of labor and had been limited to an imitation role, while public authorities should have promoted fundamental research in specific centers, and the role of companies should have been to innovate, with more organic cooperation between the different actors (Cohen & Lorenzi 2001). In 1993, the European Commission has highlighted the problems related to innovation. Europe has had difficulties to "convert scientific breakthroughs and technological achievements into industrial and commercial successes."

Table 3. Gross Expenditure on Research and Development, GDP ratio

	2005	2006	2007	2008	2009	2010	2011	2012
EU	1.82%	1.84%	1.84%	1.91%	2.01%	2.01%	2.05%	2.06%
France	2.11%	2.11%	2.08%	2.12%	2.27%	2.24%	2.25%	2.26%
Germany	2.51%	2.54%	2.53%	2.69%	2.82%	2.8%	2.89%	2.92%
United Kingdom	1.70%	1.72%	1.75%	1.75%	1.82%	1.77%	1.78%	1.72%
Finland	3.48%	3.48%	3.47%	3.70%	3.94%	3.90%	3.80%	3.55%
Spain	1.12%	1.20%	1.27%	1.35%	1.39%	1.40%	1.36%	1.30%
United States	2.49%	2.55%	2.62%	2.76%	2.81%	2.73%	2.67%	na
Japan	1.32%	1.39%	1.40%	1.47%	1.70%	1.76%	1.84%	na

Source: Eurostat,2005-2012.

Empirical studies have indicated that investments in R&D that lead to patents result in significant growth of productivity gains in developed economies (Edworthy,Wallis 2006). Under the Europe 2020 initiative, an objective of 3% of GDP to invest in R&D must be achieved to reduce the lag behind main competitors. Despite a satisfactory scientific basis,

the innovation capacity remains insufficient in Europe. For years, gross expenditure on R&D (GERD) has paled in comparison to principal partners without any member state being able to reverse the trend. Even though the EU has registered a slight increase of its GERD, the effort has not been sufficient to reach the same level of Japan or the United States (see table 3). Public and private expenditure in higher education has also been relatively low compared the United States[7], where 41% of the American population aged 25 to 64 have higher education degrees, against 44% in Japan and only 25% in the EU[11].

However, these data should be qualified, as there are some disparities between European member states. Significant efforts in terms of education, research and innovation have been undertaken in Scandinavian countries. Finland, Sweden and Denmark have indeed invested in R&D, at higher levels than the United States. According to the OECD, to achieve the objectives of the Lisbon strategy, seven hundred thousand more researchers were needed in Europe. The gap between the EU and its main competitors is essentially due to the fact that the European economy is specialized in the medium-high technology sector, but not in the promising new high-technology sectors such as information and communication technologies (ICT), electronics, nanotechnologies or biotechnologies.

The United States has strong capital accumulation in the ICT sector, whereas Europe has been focused on employment policies that encourage low-skilled labor, especially through reductions in social security contributions on low wage earners. This partly explains low gains of labor productivity in Europe relative to the United States. The rapid diffusion of ICT across the Atlantic is also due to the important fall in the relative prices of these goods and services. Since the 1990s, it appears that the ICT investment has been an important determinant of productivity gains. Between 1995 and 2000, ICT investments have induced a GDP growth per capita of 0.3% to 1%, according to empirical studies (Jorgenson et al. 2002; Cette et al. 2002). Information and communication technologies are tightly linked to innovation and help to accelerate the diffusion of information, to encourage networking among companies, to reduce geographical distances and to improve communication. The EU could benefit from a stronger investment in ICT. This also applies to nanotechnologies, biotechnologies and more generally to high technologies.

The challenge facing the EU remains to redirect and reinforce the innovation system, especially through the increase in R&D expenditure and a major effort to invest in high technologies and higher education. The economic crisis has created financial obstacles for many companies and has led to a decline in R&D investment. It is essential to counteract this tendency and to stimulate technical progress in the most promising sectors, as innovation can contribute to boosting the economy. While the EU has considerable scientific potential, the economic recovery should be accompanied by a more intense diffusion of ICT and by a higher level of education, to increase productivity gains. Public support could play a key role to reinforce the innovation process among European countries, which have more and more difficulties to access sources of funding.

[7] 18% of private expenditure are reserved to educational institutions in the EU-15, as against 66% in the United States and 68% in Japan.

The financing of innovation and public intervention

The financing of innovation presents particular challenges. The difficulty of obtaining a complete return on investment is holding investors back from investing in innovation. Information asymmetry and moral hazard have a tendency to increase the costs of obtaining external financing. Even if this is true for all firms, it is especially so for innovative companies (Hall 2005; Hall & Lerner 2010). The financing of innovative companies can be provided by standard forms of investment. However, the specific characteristics of innovation make it more difficult to access finance, whether they use internal resources or financial intermediaries. This is the reason why the intervention of public authorities to encourage innovation is essential.

More than 35% of GERD in Europe come from the public sector. The challenge is the articulation of public and private funding. The public sector should primarily finance projects that could not find investors through private funding, especially at the beginning of the growth cycle. Public intervention should be digressive with the development of the project and the authorities cannot be the only actor to finance innovation because unintended consequences might appear.

Direct support provides immediate financial benefits to a company's income statement. Such is the case of EU funds operating on two separate budget lines: the framework program for research and technological development (FP) and the regional policy (via the European regional development fund, the European social fund and the European agricultural guarantee fund). Indirect support also encourages a company's development while improving its environment (via R&D tax credits, seed funds, business incubators, etc.).

The European commission has proposed an investment of 88 billion euros for research and innovation, as part of the new community framework program "Horizon 2020" which assembles all EU funding programs, including the current framework program for research and technological development (FP7), the competitiveness and innovation framework program (CIP), and the EU contribution to the European institute of innovation and technology (EIT). The objective is to stimulate growth and employment, as well as reducing administrative burdens. The European Investment Bank (EIB) and the European commission have implemented in 2012 a joint initiative to stimulate investment in the sectors of transport, energy and ICT. The Europe 2020 Project Bond Initiative is fundamentally different from the so-called Eurobonds. Project bonds are private debt and are issued by project companies to finance large-scale infrastructure projects. Neither the European commission nor the member states will therefore issue such bonds. Capital markets are considered to be an alternative source of funding and a useful long-term financial instrument to trigger innovation in these specific sectors.

Through financial supports, public intervention promotes and encourages private investors, and even more so during an economic decline. Even if the economic literature does not help to evaluate the efficiency of public authorities' activities for innovation, the revival of economic growth should be facilitated by a public reinforcement on promising sectors such as high technologies. Some financial supports – especially direct – should be reassessed. However, many public interventions contribute to the development of European small and medium-sized enterprises (SMEs), which stimulates economic growth and the diffusion of innovation.

The contribution of Small and Medium-Sized enterprises

In the face of globalization and the acceleration of technological change, businesses with fewer than 250 employees are considered key actors in the productive structure and contribute substantially to the EU's economic growth. Almost 21 million European companies are SMEs – more than 99% of all businesses (apart from the financial sector). Europe's future prosperity depends, among other things, on the growth potential of these companies.

The economic role of SMEs in Europe

Small and medium-sized enterprises lead to a process that replaces incumbent firms by new market entrants, potentially more innovative and efficient. This process contributes to the productivity growth attributable to technical progress and essentially stems from the existing sustainable SMEs. This incumbent-entrant dynamics have an impact on the overall productivity. The creation of more productive SMEs that replace the least efficient firms largely explains the American productivity growth in the 1990s (Foster et al., 2002). These "creative destructions" that can be generated by economic crises help to strengthen the productive fabric. Even though there is a less important impact during a recession, reinforcing assistance to the creation of innovative SMEs and encouraging the growth of existing startup companies could assure a positive result on productivity growth.

The situations in Europe and the United States do not differ by the number of new startups but by their fate (Bartelsman et al., 2005). The establishment of a support plan for French SMEs during the 2008 global crisis has improved their financial health. The Economic Stimulus Plan helped more than twenty thousand companies and their survival rate has reached 89% at the end of June 2011. Despite the considerable growth potential of European SMEs, liquidity constraints undeniably lead these startups to bankruptcy.

SMEs have also helped to provide long-term employment, jobs creation being negatively associated with a firm's size (Birch, 1981; Storey & Johnson 1987; Davis et al., 1998). They account for around two thirds of industrial employment in Europe and the Commission has estimated that they provided 85% of jobs created between 2002 and 2010. Employment creation justifies why SMEs should be supported. However, despite growth potential and job creations, European SMEs are facing many challenges.

Barriers to SME growth

Structural barriers to the development of SMEs are numerous. One of the most difficult obstacles remains the struggle to access external financing sources. This impediment should be considered as important as labor market rigidities. Indeed, SMEs play a key role to the diffusion of technical progress but have to face the difficulties inherent to financing of innovation.

Venture capital is often chosen to overcome the problem. The financial capital is provided to risky investments and should have a positive impact on companies' growth prospects (Engel, 2002). The SME is partly financed out of its own resources and the remaining part is provided by a special fund, maintained by external investors and managed by venture capitalists, who are supposedly able to reduce information asymmetry. Based on his own

business network and his technical as well as market knowledge, the venture capitalist will help the company to grow. Its intervention is primordial during the early-stage of the company. On the informal market, some intermediaries can finance these startups, such as business angels who invest in innovative SMEs with a strong potential. These high net worth investors intervene during the seed and start-up stage or during the launch of new products, they are particularly motivated by the return on investment and are relatively keen to take higher risks.

Europe is lagging behind concerning the financing of its early-stage companies and SMEs' monitoring. There are near 75 thousand business angels in the EU, as against 265 thousand in the United States. American SMEs were given the necessary capacity to finance and secure their development. Their business angels have rapidly expanded thanks to fiscal incentives and deductions of investment losses. In Europe, given the particularly heterogeneous nature of the region in terms of capital gains taxes, the efforts concerning fiscal incentives for venture capital investments must be accentuated. A reduction in capital gains tax would reward investors, at least cost to the government. In the United States, the reduction in capital gains has generated a positive and decisive impact on venture capital investments and on the degree of risk-taking by business angels (Lerner 1998). Tax credits should be limited to more risky investments and oriented towards early-stage SMEs, to encourage investors and further venture capital investments. The European Commission has tried to support such financing by the establishment of a European system in December 2011, to help managers commercialize venture capital funds on a European basis. They will raise additional capital and the obstacles related to cross-border transactions will be reduced.

Crowd-funding could provide an alternative source of financing. This participatory approach, which involves individuals with relatively small amounts of money to invest, is only an epi-phenomenon in the world of venture capital financing. While American congressmen have passed a law to facilitate this type of financing (through the Jumpstart Our Business Startups Act), European SMEs are facing restrictive national regulations to the development of crowd-funding. However, crowd-funding could be inefficient in selecting potential entrepreneurs and could also lead to fraud and misuse. As signals of project quality are weak and information asymmetry is exacerbated, investors' potential returns are unlikely to justify the risk taken.

Other instruments and initiatives could help SMEs to access financing. Examples include – but are not limited to – mezzanine capital (subordinated debt) that facilitates access to bank credits and supports intangible investment projects, but are poorly developed in Europe. Some joint European resources initiatives for SMEs such as "Jeremie" could also improve access to financing through structural funds. These initiatives allow member states to invest in venture capital funds, guarantee funds or loan funds.

Given these financial constraints, European SMEs barely reach the critical size to export, and only one in five is operating internationally. Challenged by the fierce foreign competition, an expansion abroad would support the long-run viability of a business, but would also boost economic growth and strengthen competitiveness. Exportation is often considered as too expensive or risky and many SMEs do not expect to internationalize their activities. However, German SMEs have the capacity to reach the critical size required. The German *Mittelstand* – and its many medium-sized SMEs – is frequently perceived as a model

to follow and has enhanced the reputation of the "made in Germany" seal of quality thanks to the enviable performance of its industries. While French and British SMEs were affected by the global financial crisis, Germany's prosperity owes a great deal to the *Mittelstand* and to the strength of its large number of medium-sized enterprises. Without actually leading to a German-inspired model based on export-dependence, public and private investments would enable more European SMEs to internationalize their activities. Because several Asian countries have experienced an economic take-off, German SMEs has become highly specialized, especially in high value-added capital goods, in sectors such as automotive, chemistry, precision engineering and electrical engineering. The *Mittlestand* is also notable for – and is playing a pioneering role in – the transition to a resource-efficient and low-carbon economy. Therefore, these SMEs have become the essential suppliers of major industrial groups and have benefited from a strong international demand.

Think small first: an SME-friendly environment

To tackle the obstacles impeding the development of European SMEs, a more suitable environment must be provided. Because growth potential and employment creation in the European industry depends on the dynamism of its companies, more efforts are required to encourage the establishment, development and internationalization of SMEs. In this regard, the adoption of the "Small Business Act" for Europe in December 2008 was undoubtedly a useful action plan.

Taking its inspiration from the American *Small Business Act*, the recent initiatives aim to contribute to the achievement of ambitious objectives targeted by the Europe 2020 strategy. To boost economic growth, the European Commission and its member states are committed to establish several political and legislative measures of which one of the main goals is to support SMEs and reduce the obstacles that hinder their development and restrict job creation. With a 1.1 billion euros budget over the 2007-2013 period, the Competitiveness and Innovation Framework Program (CIP) facilitates venture capital investments and provides loan guarantees for SMEs. According to the Commission, each SME with a guaranteed loan could create an average of 1.2 jobs, and 300,000 SMEs have benefit from the CIP financial instruments by 2013.

The European Investment Bank (EIB) has contributed to the development of SMEs by releasing 40 billion euros of loans to 210,000 companies between 2008 and 2011, to help innovative enterprises and to implement the Lisbon strategy. The central role of the EIB in raising funds to finance European SMEs – and by extension innovative companies – needs to be strengthened to meet the objectives of the Europe 2020 program.

Special emphasis should be given to Small Business Investment Companies (SBICs) to finance SMEs in their startup and growth phases. By implementing a European supervisory board (with a public-private team) and with some help from the EIB, business angels and the financial market, it should be possible to raise enough funds to invest over several years in the most dynamic SMEs. Some improvements have been observed in public procurement. SMEs have less administrative burdens since the introduction of the Small Business Act (SBA) and are encouraged to work together in order to offer joint bids.

The main challenge for SMEs lies in the diversity of national and local environments and on the principle of subsidiarity. Even though all EU member states recognize the importance

of the SBA and its rapid implementation, the countries have chosen various methods of implementation and obtained different results. Access to financing and to public procurement is generally facilitated but the future of the SBA will depend on the determination of European countries to follow the Commission's initiatives. An enhanced governance of the SBA should provide the expected results.

The global economic environment has dramatically changed in the past few years and the efforts to encourage the creation, development and internationalization of SMEs must form the heart of the new integrated industrial policy of the EU. Member states should take into account the needs of SMEs in their economic policies in order for the European industry to remain a driver of economic growth.

Concluding remarks: European Union must take advantage of its market size

Europe does not have a true top-down industrial policy such as the one endorsed by France in the 1980s. The Union is pursuing instead a bottom-up industrial policy inspired by the German *Standortpolitik*[8]. Its initiatives towards SMEs provide an eloquent illustration. However, sectoral actions to strengthen the productive fabric in Europe remain exceptional. *Galileo* is one of the few industrial projects that are truly supported by the EU.

By contrast, the Union does not interfere in sectors where the combined effect of increasing returns (or spatial externalities) and the size of the European internal market could be a decisive advantage for the competitiveness of manufacturers. Indeed, in productive activities where economies of scale are real (besides aeronautics, some energy-related sectors, railway equipment, some aspects of the new green economy, etc.), a policy of "European industrial champions" could succeed. Given its importance – often among the main international priorities – the single market can transform a European champion into a worldwide industrial leader. If not, it will still be a significant player on markets that are only allowing a few large competitors.

The European pusillanimity is often involved and blamed, in several matters. Firstly, Europe's major competitors – and especially China – are using this type of leverage. The Chinese case and its numerous successes have even largely contributed to the recent rehabilitation of the industrial policy, at least in emerging countries (Rodrik,2004). Secondly, as pointed out by Aghion *et alii* (2011), the question is no longer to know whether or not the industrial policy should have a sector-based component, but to understand how to implement it with a maximum efficiency and a minimum of detrimental effects. Finally, the structural economic phenomena are undoubtedly related to the classical economics idea that the market is better than the state at making the right investment choices. The environmental crisis or the issues of energy mix are significant examples.

In Europe, the competition policy has so far taken precedence over the industrial policy. The merger control policy is indeed occasionally constraining the creation of large companies. The concern to limit market power prevails over the development of the productive apparatus. Similarly, public procurement cannot be used selectively within the EU, as was the case in France and as it is still occurring among the major competitors (United

[8] Literally "industrial production policy", dealing with the competitiveness of the "made in Germany".

States, Japan, China, etc.). Submitted by the European commission, the recent request for international reciprocity concerning the opening of public procurement cannot hide the naivety (related to neo-liberal beliefs) that is characteristic of the EU policy in this matter over the past twenty-five years.

To a certain extent, a similar idea is behind the state aid control. State aid is indeed prohibited by the Treaties, but can be compatible with the logic of the internal market (article 107 TFEU). The real circumstances authorized by the Commission remain unclear. The article 107-3 stipulates that the "aid to promote the execution of an important project of common European interest" and the "aid to promote the economic development" are potentially permissible. It seems that a legal uncertainty could be found to promote an active industrial policy, with sectoral State aid.

Moreover, industrial policy and competition policy are less antagonistic than what the consensus of the past twenty-five years was suggesting (Aghion et al., 2011). In particular, some state aid could target specific sectors, without favoring one company over another, as long as the sector concerned has not reached a high degree of concentration. The risk of "cherry picking" (where incumbent companies are favored by the political action) is therefore limited.

The EU has also identified – as part of the Europe 2020 strategy – several promising sectors, considered as decisive for the future competitiveness. This includes, in particular, the digital economy, biotechnologies, photonics, nanotechnologies, etc. Consequences still have to be drawn from state aid issues, particularly when fixed production costs are high (and therefore important scale effects). These state aid measures would benefit from a European approach, because all attempts by member states to give advantage to a local company will be avoided, while the pertinent scale is the internal market as a whole.

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Evropski rast: kriza izlazne strategije

***REZIME** – Dok se Evropska unija suočava sa sve jačom recesijom, propraćenom posledicama globalne finansijske krize iz 2008. godine, pokazuje se da je više nego potrebna podrška privrednim aktivnostima. Primarne brige zemalja članica se zasnivaju u nastojanju da povećaju konkurentnost, zaposlenost, inovacije i pomoć malim i srednjim preduzećima, kako bi podstakle ekonomski rast u kratkom ili dugom roku. U tom smislu ovaj rad najpre ukazuje na to da je apsolutno neophodna privremena podrška privrednim aktivnostima, a detaljno su i razmotreni mogući aranžmani. Pored toga, treba staviti akcenat na inovacije jer one igraju ključnu ulogu za povećanje ekonomskog rasta. Posebna pažnja je usmerena na sektor malih i srednjih preduzeća, njihov potencijalni uticaj na produktivnost i finansijske poteškoće. U zaključnom delu smo se fokusirali na veličinu evropskog tržišta i istakli smo netrpeljivost između politike konkurentnosti i industrijske politike.*

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