EUROPEAN

POLICYBRIEF

INVESTING OUT OF THE CRISIS

Giovanni Dosi,[1] Dario Guarascio,[2] Mariana Mazzucato,[3] Andrea Roventini[4]

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ISIGrowth is a 3-year EC Horizon 2020 funded project aimed at offering comprehensive diagnostics on the relationship between innovation, employment dynamics and growth in an increasingly globalised and financialised world economy. The project will provide a coherent policy toolkit to achieve the Europe 2020 objectives of smart, sustainable and inclusive growth. The theoretical foundation is based on the dynamic link between Schumpeterian economics of innovation and Keynesian demand policies. Analytical tools include agent-based modelling, non-parametric statistics, and detailed case studies of business and industry histories.

[1] Scuola Superiore Sant'Anna, Pisa (Italy), email: giovanni.dosi@santannapisa.it
[2] National Institute for the Analysis of Public Policies (INAPP, Rome) and Scuola Superiore Sant'Anna, Pisa (Italy) email: d.guarascio@inapp.org
[3] University College London (U.K.), email: m.mazzucato@ucl.ac.uk
[4] Scuola Superiore Sant'Anna, Pisa (Italy) and OFCE Sciences Po, Nice (France), andrea.roventini@santannapisa.it

POLICY BRIEF SUMMARY

Europe can move towards an inclusive, sustainable and innovation-friendly growth-path as long as it renews its economic policy agenda. ISIGrowth research points to two key messages:

First, the mono-directional supply-side policy attitude – based on *fiscal austerity* plus *labour market structural reforms* – has not worked and it should leave the ground to a combination of supply-side, demand-management and industrial policies. The latter is the appropriate policy combination to deal with complex issues such as: inequalities within and between countries; divergence and de-industrialisation; technological transition and labour impact of the latter; environmental challenges.

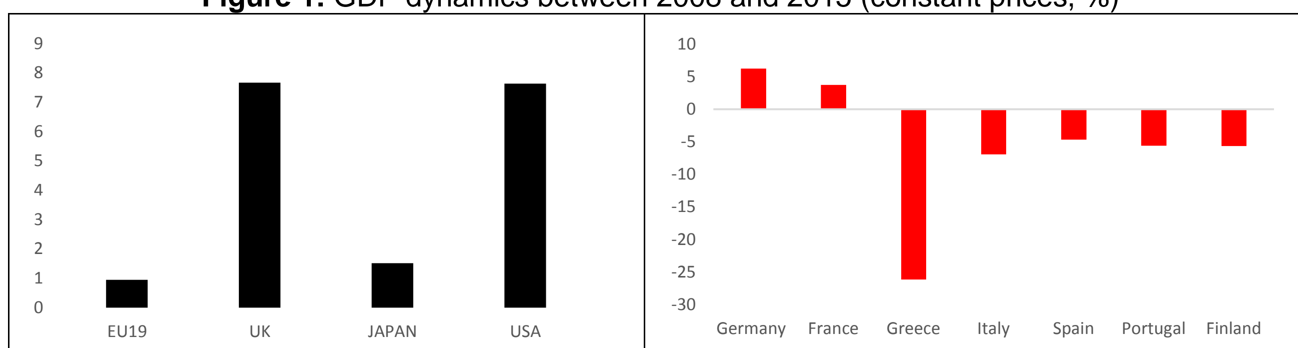
Second, a key message emerging from the ISIGrowth agenda is that public policies should move from just "fixing" market failures (or system failures) to "creating" markets, by means of *mission-oriented* projects (Mazzucato, 2016). That is, major policy programs involving long-term investments able to shape economies and favour the transition towards high-value, innovative and environmentally-friendly productions.

In order to realise such an ambitious policy program, President Jean-Claude Juncker's "Investment Plan for Europe" should be strongly reinforced, thereby empowering and reshaping the European Fund for Strategic Investments at the European Investment Bank.

CONTEXT: THE WORST ECONOMIC CRISIS SINCE 1929

The European Union has been harshly hit by the economic and financial crisis of 2008; its impact in some countries has been worse than that of the Great Depression. Indeed, after eight years, in most European countries growth is still anaemic and only a minority of member States (notably Germany) have exceeded their pre-crisis production levels (cf. Figure 1). Such trends do not characterize most other advanced economies, i.e. China, Japan and the US, which have largely recovered, leaving Europe behind in terms of both production and employment dynamics.

Figure 1: GDP dynamics between 2008 and 2015 (constant prices, %)

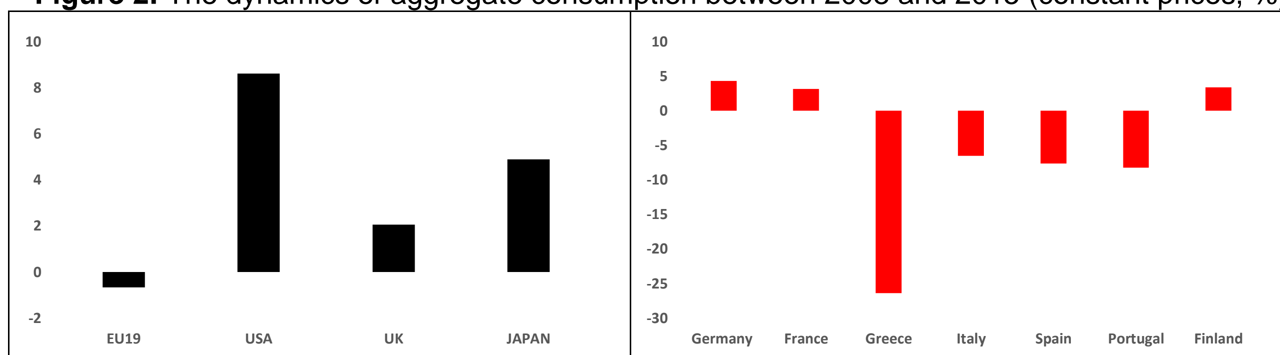


Source: our elaboration on OECD and Eurostat data

The Great Recession has also accelerated Europe's industrial decline. In the EU as a whole, manufacturing production is now almost 10% lower than at the start of the crisis (Lucchese et al., 2016). Looking at the shares of world manufacturing value added (from 2008 to 2013), China's share grew from 14.8 to 23.2%, while Europe's share fell from 32.2 to 24.9%; even Germany lost 1.3 percentage points. Over the same period, the polarisation between European economies have steadily increased. While Eastern countries have experienced a sustained growth path and Germany showed a stable performance, UK and France displayed poorer records and Southern European countries had dramatic losses of industrial production (e.g. the industrial capacity of Italy and Spain fell by almost 25%).

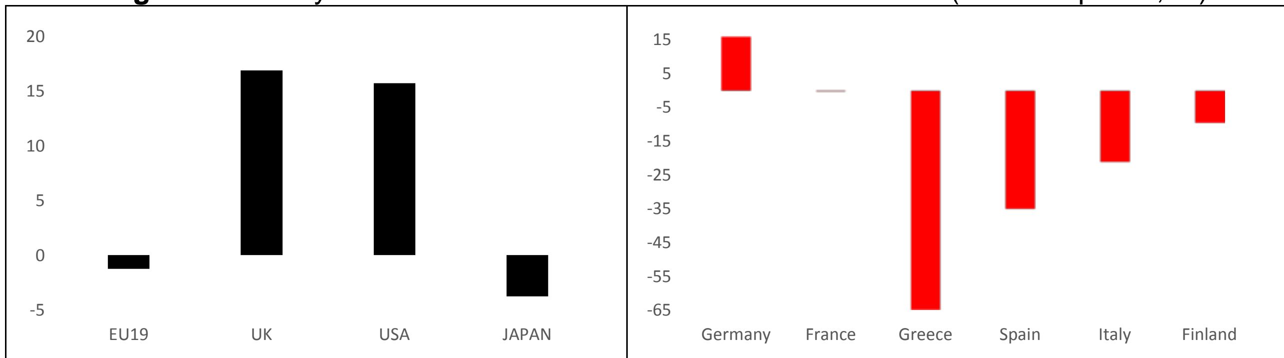
Such structural trends are mirrored by the dynamics of aggregate demand: Figure 2 reports the dynamics of aggregate consumption while Figure 3 displays what occurred on the investment side. The divergence between US, UK and Japan and the EU19 is even more impressive when focusing on private consumption and, as before, a strong polarisation between Central and Southern Europe emerges. Europe is also largely outperformed by the US in terms of investment rates, with Mediterranean countries experiencing a severe contraction in investment.

Figure 2: The dynamics of aggregate consumption between 2008 and 2015 (constant prices, %)



Source: our elaboration on Eurostat and OECD data

Figure 3: The dynamics of investments between 2008 and 2015 (constant prices, %)

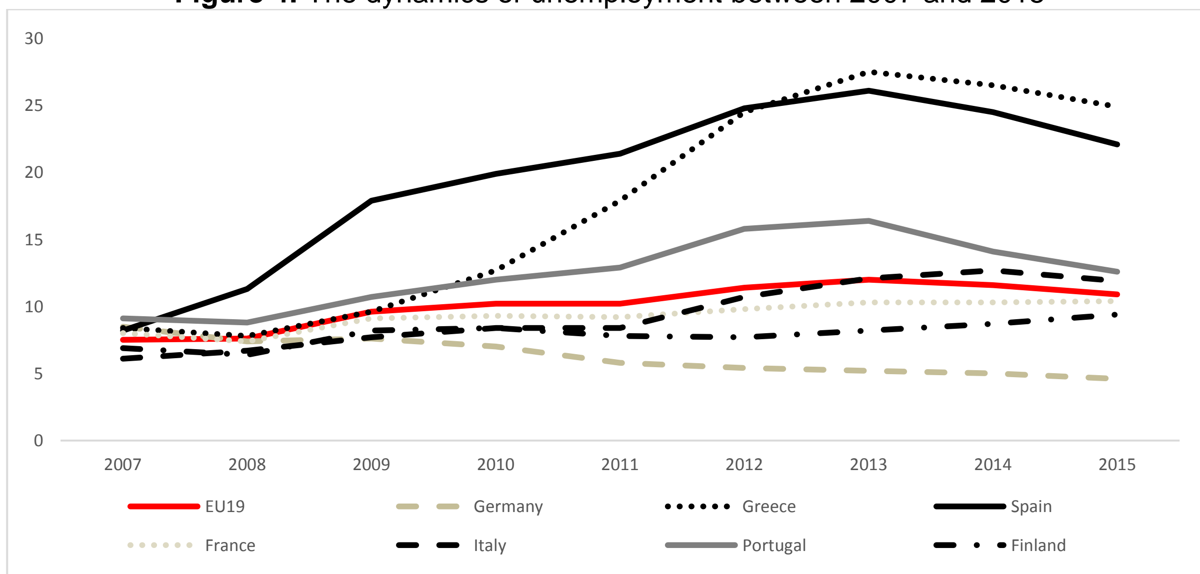


Source: our elaboration on Eurostat and OECD data

With the exception of Germany, the unemployment rate has increased in most European Union member countries (cf. Figure 4). In particular, the rise of youth unemployment has been especially dramatic in Southern countries (cf. Figure 5). Moreover, poverty jumped up in many EU19 economies (cf. Figure 6). Similarly, the increases in poverty occurred unevenly across Europe, with the Southern periphery experiencing the highest surges.

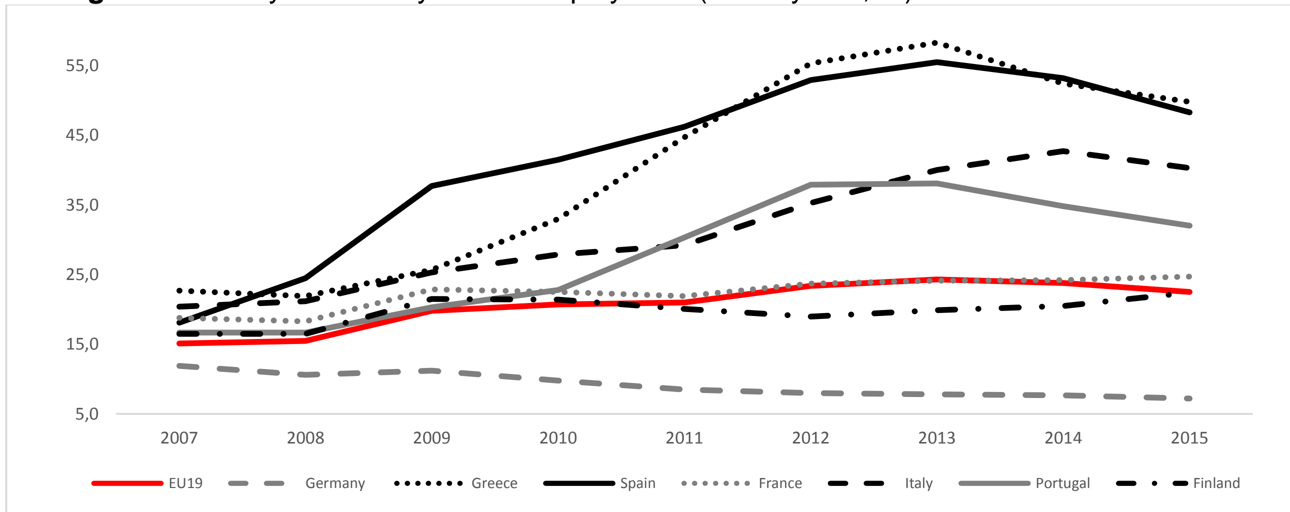
*Overall, the macroeconomic evidence reported so far sends **two key messages**. First, the effects of the Great Recession have been more dramatic in the European Union than in other developed economies, leading to higher unemployment, inequality and poverty. Second, the European internal divergence has skyrocketed since 2008, with Southern countries – i.e. Greece, Italy, Spain and Portugal (but also Northern ones e.g. Finland) – showing deep reduction in their economic activity (and higher unemployment and poverty) compared to Germany (whose GDP, it should be noted, is still far from its potential).*

Figure 4: The dynamics of unemployment between 2007 and 2015



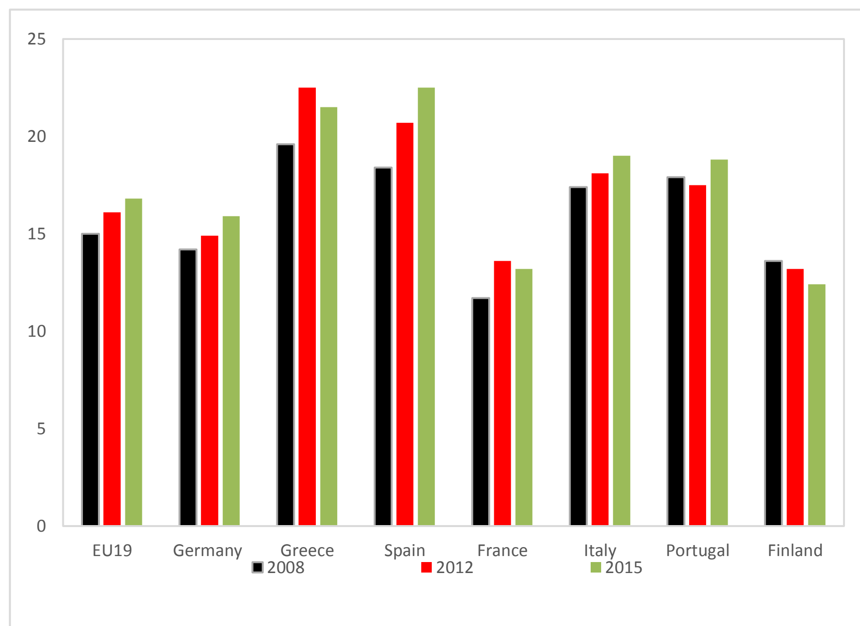
Source: Eurostat data

Figure 5: The dynamics of youth unemployment (15-24 years, %) between 2007 and 2015



Source: our elaboration on Eurostat data

Figure 6: The dynamics of poverty in the EU between 2008 and 2015
(share of population at risk of poverty)



Source: our elaboration on Eurostat data

BUSINESS AS USUAL: A SELF-DEFEATING POLICY-MIX GROUNDED ON FISCAL AUSTERITY AND STRUCTURAL LABOUR MARKET REFORMS

The anaemic post-crisis European economic performance, rising unemployment, inequality and poverty – and the explosion of the divergence between the central and peripheral EU countries – are intimately intertwined with the policy mix adopted in Europe during the Great Recession. The *mix of fiscal austerity plus labour market structural reforms* have exposed EU citizens to blood-and-tear policies without restoring steady growth and creating jobs.

Let us start with *fiscal austerity policies*, incarnated in the *Fiscal Compact* (FC), which was approved in 2012. Under the FC, all EU member States commit to achieving a balanced budget (even introducing a specific clause in their constitution). The limit of the structural deficit is fixed at 0.5% of GDP, with the exception of specific circumstances such as sudden shocks, natural disasters, etc. If the public debt is below 60% of the GDP, the deficit limit can be up to 1%. However, countries exceeding the 60% of the debt-to-GDP ratio face an automatic correction mechanism, namely a reduction of 1/20 per year of the difference between the actual debt level and the level corresponding to the 60% debt-to-GDP ratio. Moreover, in case of deviation from the deficit level imposed by the FC, a budgetary and economic partnership programme must be implemented. If the measures resulting from the excessive deficit procedure are not transposed into national law, recourse to the EU Court of Justice is possible, which can result in financial sanctions. Overall, the FC completes the establishment of the new European economic governance according to which budget balancing prevails over all the other policy objectives (e.g. output stabilisation), leaving little or no space for other policies (e.g. industrial policy).

The second pillar of the European post-crisis policy mix concerns the introduction of *structural reforms in the labour market* to spur flexibility, competitiveness and reduce unemployment. The major strongholds of such reforms can be summarised as follows. First, the entry and exit of workers in the labour market is facilitated by reducing the costs and legal constraints on workers' dismissals and by favouring the diffusion of more "flexible" job contracts, including temporary ones. Second, and relatedly, switching from sectorial/national-level bargaining structures to firm-level ones is promoted. Overall, these measures are directed at spurring productivity, competitiveness and should have trickle-down effects on employment and economic growth. In Box 1, we report the labour market reforms introduced in Germany, Italy and France. However, similar structural reforms have been introduced in all countries (e.g. Greece, Portugal, Spain) asking the European Commission interventions after 2010.

Box 1: Labour market structural reforms in Germany, Italy and France

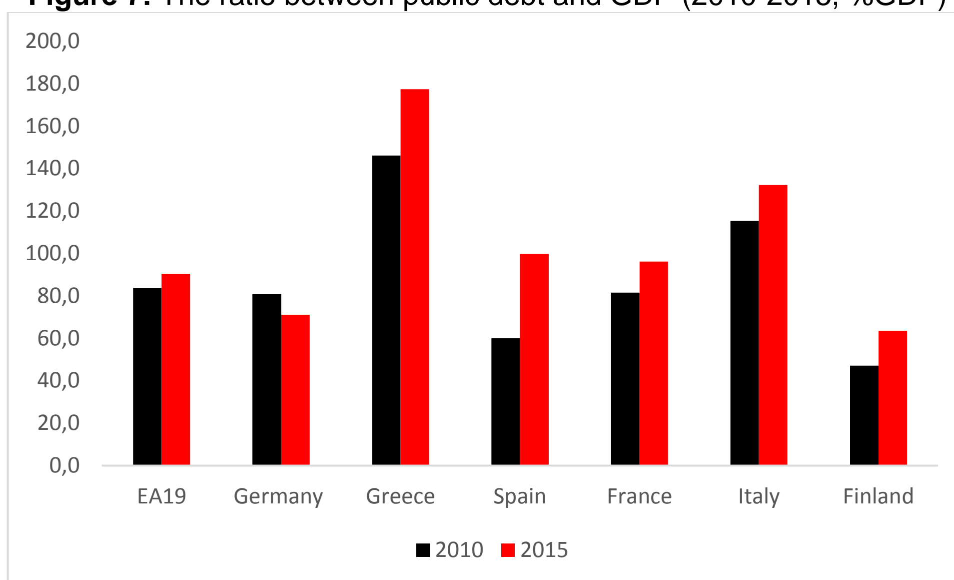
Germany. The reform of the German labour market took place via the Hartz I–IV legislative package from 2002 to 2005. The first three stages of the reform (Hartz I–III) aimed to improve job search efficiency and employment flexibility. They included deregulation of temporary jobs to grant employers more flexibility to vary employment levels without incurring hiring or firing costs, as well as a restructuring of the federal labour agency in order to improve the matching efficiency of job searchers. The Hartz reforms also introduced "mini-jobs": non-insurable marginal part-time work with lower monthly earnings (up to 450 euro). The final set of reforms (Hartz IV) entailed a major restructuring of the unemployment and social assistance system that considerably reduced the size and duration of unemployment benefits and made them conditional on tighter rules for job search and acceptance.

Italy. Since 2008, the Italian labour market was exposed to different waves of "structural reforms". The first reforms aimed at increasing entry flexibility. Lately, the "Fornero" act (2012) and the "Jobs Act" (2015) have also increased exit flexibility, considerably reducing firing cost. In particular, the "Jobs Act" completely abolished the reinstatement right in cases of lay-offs declared unfair by the court, stimulated the use of temporary contracts eliminating previous constraints on their use by firms, and eased the adoption of "vouchers", i.e. hourly tickets used to compensate workers with a minimum salary (7.5 euro) without any social contribution. The "Jobs Act" also introduced a new contract type – "contratto a tutele crescenti'' (CTC) – which allows firms to easily lay off workers paying two months of salary per year up to a maximum of 24 years. The introduction of the CTC has been supported by the provision of generous fiscal incentives (i.e. discount of social contributions for newly hired workers) for firms hiring with the new contract type.

France. A series of acts have tried to increase the flexibility of the French labour market. The Job Security Act (2013) allowed firms in severe economic difficulty to renegotiate wages, employment and working time for up to two years. Moreover, a simplification of collective dismissals was introduced and taxes on open-ended contracts raised. The CICE - Responsibility pact (2013) lowered the labour cost via public subsidies. Finally, the Loi travail (2016) allowed firms to (i) lay off workers if a drop in sales occurs; (ii) change working time organisation in case of demand fluctuations; (iii) set overtime payments for hours worked beyond France's statutory 35-hour work week, below the level decided at the national/sectorial level.

As documented by the evidence presented in Section 1, the policy mix adopted by the European Union – based on austerity cum labour-market structural reforms – has not jump-started economic growth in Europe but, on the contrary, has increased unemployment and poverty. Moreover, it has supported the divergence between Northern and Southern countries, with the latter (and Finland) paying the highest costs of the implemented policies. Such increasing doses of blood-and-tears policies have not even been successful in stabilising the public budget of the countries to which they were prescribed. Indeed, again, with the exception of Germany, the ratio between public debt and GDP has increased in almost all EU members (cf. Figure 7). The research carried out in the first eighteen months of the ISIGrowth project (http://www.isigrowth.eu) contrasts the current disastrous policy mix and suggests new directions.

Figure 7: The ratio between public debt and GDP (2010-2015, %GDP)



Source: our elaboration on Eurostat data.

ISIGROWTH POLICY RESULTS: DEBUNKING AUSTERITY AND LABOUR MARKET STRUCTURAL REFORMS

There is a widespread consensus among economists that the impact of fiscal consolidation policies is significantly negative, especially when carried out during recessions or in periods when credit markets are under stress. Indeed, austerity policies appear to be *self-defeating* (Dosi et al., 2015, 2016a): they exacerbate crises, while reducing the innovation and long-term performance of the economy, without stabilising the ratio between public debt and GDP. More generally, a new empirical study carried out within the ISIGrowth project (Guerini et al., 2017) shows that surges in public debt have a *positive* impact on GDP both in the short- and in the long-term. In fact, the results also show that policymakers should mostly fear private debt bubbles, especially household debt ones, as they can lead to financial crises and deep downturns.

Consistently with the foregoing literature, a model developed by ISIGrowth researchers (Napoletano et al., 2017) finds that the effects of fiscal policies (and the associated "fiscal multipliers") are stronger when households and firms are financially constrained and when income inequality is high. The results also suggest a need for implementing redistributive fiscal policies financed with taxes on higher income or wealth. Within the framework of the cohesion funds or the European Stability Mechanism, a recent ISIGrowth paper (Dawid et al., 2016) has developed a

model to study which policy mix is best suited to closing the income gap between peripheral and core countries in the European Union. Results clearly show that fiscal transfers from core to periphery countries are needed to close the divergent growth patterns. More specifically, a mix of transfers supporting households' income and technology-oriented firm subsidies can boost the competitiveness and technology of peripheral countries and improve both their short- and long-term per-capita income. In fact, through model simulations, Griffith Jones and Cozzi (ISIGrowth chapter in Rethinking Capitalism) show that public and private investments are complementary. Indeed, there is strong evidence that public investment "crowds in" private investment in times of anaemic aggregate demand (see also Guerini et al., 2017).

The impact of structural reforms aimed at increasing the flexibility of labour markets has been extensively studied within the ISIGrowth project from both empirical and theoretical perspectives. Using Italian administrative and labour force data, Fana et al., (2017) find no evidence that such reforms have increased employment in Italy. In fact, they have boosted the adoption of temporary contracts over the open-ended ones, and a rise in part-time contracts within newly-opened permanent positions. On the theoretical side, in a series of ISIGrowth working papers, Dosi et al., (2016b, 2017a, 2017b) study the impact of labour-market reforms supporting numerical and wage flexibility. The first intervention allows firms to fire workers more easily, while the latter makes wage levels more responsive to labour market conditions (e.g. unemployment rate). Results show that such policies do not improve firm competitiveness, productivity or GDP growth, thus permanently reducing the unemployment rate. On the contrary, by weakening workers' consumption, they increase inequality and unemployment, leading to higher economic instability and occurrence of deep downturns. Such negative effects spill over into the long-term. Indeed, flexible labour markets slow down workers' skill accumulation and firm's technological innovation and adoption, thus reducing productivity and GDP growth.

RESHAPING THE EUROPEAN POLICY AGENDA: A MISSION-ORIENTED APPROACH

The measures that the European institutions have so far put in place to revive investment – in particular the "Growth Compact" and President Jean-Claude Juncker's "Investment Plan for Europe" (JP) – are inadequate to deliver the desired outcomes of investment-led growth. We argue for a fourth-pronged approach. The first is to use the European Investment Bank (EIB) and national development banks to help catalyse private investment (Griffith Jones and Cozzi, 2016; Lazonick, 2016; Mazzucato and Penna, 2016). The next is to reduce the pace of fiscal consolidation, so that public investment can rise and not fall. The third is to stop and possibly revert labour market "structural reforms" which make the economy more fragile. The fourth and final is to implement mission-oriented industrial policies in order to catalyse innovation across a number of sectors.

So far, results of the ISIGrowth project suggest that, to cure the damages produced by the crisis, Europe needs to radically reshape its policy agenda. An alternative policy framework is needed to achieve three major interconnected goals: (i) stop the increasing growth gap between the US and European economies; (ii) promote an innovation-driven, sustainable and socially-inclusive growth; (iii) reverse the structural divergence between core and periphery European countries, which is threatening the very existence of the European Union.

In line with the policies proposed by the European civil society, collected by the Civic Action Network of the ISIGrowth project (Fazi, 2016),[5] the research findings of the ISIGrowth project support an ensemble of complementary measures. First, labour-market structural reforms should

[5] Organisations members of the Civic Action Network of the ISIGrowth project include: ATTAC Europe, ETUI, EuroMemorandum Group, Finance Watch, Friends of the Earth Europe, Kyoto Club, New Economics Foundation, Sbilanciamoci!, Tax Justice Network, Transnational Institute and WWF Europe.

be reversed. Many European economies need increased job protection, wages that are strictly indexed to productivity growth (or even more than indexed) and institutions such as a relatively high minimum wage and unemployment benefits. Such an institutional framework could reduce inequality and sustain consumption – as well as investment – and through that the diffusion of innovation embodied in the newest vintages of capital equipment (Dosi et al. 2015, 2016a, 2016b, 2017a, 2017b)

At the same time, fiscal austerity needs to be replaced by a large public investment and transfer program (Dawid et al., 2016; Napoletano et al., 2017). For example, massive investment in infrastructure would be a welcome measure. In this respect, the JP (see Box 2) – a set of direct investments with a key role played by the European Investment Bank (EIB) and the European Fund for Strategic Investments (EFSI) – goes in the right direction. However, the plan has several limitations.

First, the resources allocated to the plan by the European Union are limited and consist of a repackaging of funds previously attributed to different EU programs. In fact, it primarily relies on a huge – and very uncertain – leverage effect in financial markets. The European Commission has recently taken actions in this direction, announcing novel measures (more in Lucchese et al., 2016). In particular, the Commission is committed to doubling the EFSI, in terms of duration and financial capacity with a legal extension that would bring the initial three-year period (2015-2018) with a target of EUR 315 billion to at least half a trillion euro investments by 2020 (the end of the current Multiannual Financial Framework). However, again, these are very optimistic targets relying on the achievement of huge leverage ratios. Conversely, an imaginative way to expand the program could be via the purchase of EIB and EFSI bonds by the European Central Bank within its quantitative easing policy (note that such a measure would not violate any of the statutory limitations to which the ECB is subject).

Second, there is an imbalance between private and public interests: private investors aim at guaranteed returns in relatively low-risk activities, but public-interest projects – which are socially the priority – may entail higher risks and lower private returns (indeed it is quite unfortunate that projects funded exclusively by public agencies are excluded from the plan).

Third, but possibly most important, there is a lack of any strategic planning. The JP envisages a collection of disparate investment projects falling short of any ambitious mission-oriented strategy (Mazzucato, 2016; Mazzucato and Penna, 2016; Mazzucato and Siemeniuk, 2017). By that we mean strategies by public authorities which entrepreneurially set ambitious technological and industrial targets and – in collaboration with the private sector – build the organisational set-up equipped to achieve them. In the past, obvious examples have been the Manhattan Project or the Apollo Program. Such policies can also rebalance economies away from financial speculation towards investment-led growth.

Today, an urgent challenge is climate change: operationally, this will entail transforming the economy in ways which satisfy the two degrees limit set by the COP21 conference in Paris. The precondition, of course, is to recognise that markets often are not the best actors to identify investment opportunities in situations rife with uncertainties, externalities and dynamic increasing returns, and fixing them is not enough (Mazzucato, 2016; Mazzucato and Penna, 2016; Mazzucato and Siemeniuk, 2017). As the windows of opportunity for effectively contrasting the catastrophic effects of climate change are closing (Balint et al., 2016; Lamperti et al., 2016, 2017), Europe urgently needs an ambitious, innovation-friendly, mission-oriented investment plan which, at the same time, tackles a dramatic socio-economic challenge and jump-starts investment activities in the Union, focussed on a new green direction (Mazzucato and Siemeniuk, 2017).

In order to achieve such policies – which would bring Europe back on an innovation-friendly, sustainable growth path – President Jean-Claude Juncker's "Investment Plan for Europe" should be considerably strengthened. Moreover, the European Fund for Strategic Investments at the European Investment Bank should be reshaped and enlarged along the lines suggested by Griffith-Jones and Cozzi (ISIGrowth chapter in *Rethinking Capitalism*).

Box 2: The "Junker Plan" (JP)

The President Jean-Claude Juncker's "Investment Plan for Europe" (JP) aims at supporting public and private investment in order to restart growth in Europe. The JP is also directed at tackling the process of weakening of the industrial structure occurring in large part of Southern Europe. A key feature of the JP is the European Fund for Strategic Investments (EFSI), created in 2015 and "located" at the European Investment Bank (EIB).

The EFSI is expected to fund new investment projects up to 315 billion euro. The Junker Plan is funded by the European Union with 8 billion euro. The EU guarantee on the projects is expected to bring in additional 8 billion euro, while 5 billion euro are provided by the European Investment Bank. The total fund of 21 billion euro is expected to mobilise private funds for an amount fifteen times greater, relying on a huge leverage effect in financial markets, which expect guaranteed returns on investment. The resources come from a reshuffling of the EU budgets and are mainly taken from Horizon 2020 and the Connecting Europe facility – i.e. transport infrastructure.

The key areas where the EFSI is expected to fund investments are infrastructure and innovation. Moreover, a specific action for Small and Medium-sized Enterprises - with a role of EIB's European Investment Fund (EIF) - is introduced. The major aim of the plan is to push the EIB to (i) finance riskier projects unable to secure funding today; and (ii) increase the probability of attracting private investors into valuable long-term investment projects.

Since its inception, the EFSI has approved investments for 31.5 billion euro of which 21.9 billion signed. The EIB figures show that total investment linked to operations approved under the EFSI is close to 168.8 billion (Source: EIB data, January 2017). The large number of projects submitted for EFSI funding, thus, signal the diffuse need for public investment in EU countries. In this respect, it is absolutely important that some medium-long term investment projects have been launched. However, according to the EIB, the JP is still at the 52% of its initial ambitious goal (i.e. mobilising 315 billion of investments). Moreover, until now the JP has not been successful in mobilising "additional" investment, i.e. projects that could not have been carried out without EFSI funding. Indeed, a first evaluation of the JP (Claeys and Leandro, 2016) shows that out of 55 EFSI projects, only one of them can be considered clearly "additional".

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PROJECT IDENTITY

PROJECT NAME	Innovation-fuelled, Sustainable, Inclusive Growth (ISIGrowth)
COORDINATOR	Giovanni Dosi Institute of Economics, Scuola Superiore Sant'Anna, Pisa, Italy. Email: giovanni.dosi@santannapisa.it
CONSORTIUM	Columbia University – IPD – New York City, U.S.A. OFCE Sciences Po – SPO – Nice, France Scuola Superiore Sant'Anna – SSSA – Pisa, Italy Universitaet Bielefeld – UNIBI – Bielefeld, Germany Universitaet Zürich – UNIBI – Zürich, Switzerland University College London – UCL – London, UK University of Sussex – UOS, Brighton, UK Univerza Ljubljani – UL – Ljubljana, Slovenia
FUNDING SCHEME	Horizon 2020 Framework Programme for Research and Innovation (2014-2020) , Societal Challenge 6 – "Europe in a changing world: inclusive, innovative and reflective societies". Call Overcoming the Crisis: New Ideas, Strategies and Governance Structures for Europe **(**H2020-Euro-2014-2015/H2020-Euro-Society-2014)
DURATION	May 2015 – April 2018 (36 months).
BUDGET	EU contribution: 2,498,610.00 €.
WEBSITE	http://www.isigrowth.eu
FOR MORE INFORMATION	Contacts: Giovanni Dosi, giovanni.dosi@santannapisa.it Andrea Roventini, andrea.roventini@santannapisa.it
FURTHER READING	- Dosi, G., Pereira, M. C., Roventini, A. and Virgillito, M. E. (2017), "When more Flexibility Yields more Fragility: the Microfoundations of Keynesian Aggregate Unemployment", *Journal of Economic Dynamics and Control, DOI:* http://dx.doi.org/10.1016/j.jedc.2017.02.005 - ISIGrowth Working Paper Series (5/16) - Dosi, G., Pereira, M. C., Roventini, A. and Virgillito, M. E. (2016b), "The effects of Labour Market Reforms upon Unemployment and Income Inequalities: An Agent Based Model, ISIGrowth Working Paper Series (23/16) - Mazzucato M. (2016) "From Market Fixing to Market-Creating: A new framework for innovation policy", Special Issue of Industry and Innovation: "Innovation Policy – can it make a difference?", 23 (2), ISIGrowth Working Paper Series (02/15) - Mazzucato, M. and Semieniuk, G. (2017) "Public financing of innovation: new questions", Oxford Review of Economic Policy, Volume 33 (1): 24–48, ISIGrowth Working Paper Series (26/16) - Dawid, H., Harting, P., and Neugart, M. (2016), "Fiscal Transfers and Regional Economic Growth", ISIGrowth Working Paper Series (32/16)