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CONTACT: Rainer Kattel, kattel@staff.ttu.ee; Wolfgang Drechsler, drechsler@staff.ttu.ee; Erik S. Reinert, reinert@staff.ttu.ee

# New Narratives for the European Project[1]

Andrea Saltelli[†] and Catalin Dragomirescu-Gaina[‡],
European Commission, Joint Research Centre (JRC), Unit of Econometrics and Applied Statistics, via E. Fermi 2749, 21027, Ispra (VA), Italy, June 21, 2014

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† Email: andrea.saltelli@jrc.ec.europa.eu
‡ Email: catalin.dragomirescu-gaina@jrc.ec.europa.eu

## Abstract

This brief synthesizes doubts about the presently prevailing European Institutions' narrative, which we will call 'the received wisdom'. We concentrate on the long-term challenges and plead for more thinking on the allegedly positive relation between innovation, employment and growth in the face of opposing evidence coming from international organizations and academia. We argue that business as usual is not an option to deal with the present inequality and unemployment challenges. We suggest opening up the reflection to different economic paradigms, and to other sources of legitimate knowledge and scholarship, from bio-economics, to social inquiry and to non-neoclassical economics. Foremost, we argue that no progress is possible without reconsideration of normative questions such as 'what' do we wish to sustain and for 'whom'.

JEL: O10, O30, O52, P50

## 1. The clash between the 'received wisdom' and the new narratives

The current understanding is one where: *the economic crisis is due to a malfunctioning of the financial markets which initiated on the other side of the Atlantic. To stop a negative loop between financial markets and real economy, Europe has acted quickly by designing new mechanisms and policy actions. Ireland and Latvia have made it out of the crisis by following the received policy recipes. Greece is back in the embrace of the financial markets. The market still remains the best solution to many problems, including those generated by the crisis. Globalization and innovation are good for growth and jobs. Growth can be made inclusive, smart and sustainable. Innovation will drive us out of the crisis. Solving our problems of skill mismatches will alleviate unemployment. Light can be seen at the end of the tunnel and renewed growth is behind the corner.*

But what if …

- … the concept of *growth* – intended as growth of GDP per capita – is devoid of salience as three decades of increasing inequality have made the mean inadequate to describe living standards, so that other measures such as the median should be used, as recommended by the Stiglitz report (CMEPSP 2009)[2]?
- … Philip Mirowski is right, and the economic profession is still infatuated with a neoliberal creed and neoclassic economic stance which has been largely falsified by current events[3]. What if this is one of the root causes of the crisis? What if this creed has corrupted the self-governance method of science and is now jeopardizing the very mechanism of science driven innovation[4]?
- … Thomas Piketty[5] (and Anthony Atkinson and Emmanuel Saez) are right[6] and we are in a second *Gilded Age* – an era where the market does not deliver universal wellbeing but increased inequality, and prominence of capital over labour? What if growth – when it does take place during the span of the present crisis – only accrues to the better off? Note Krugman's critique that the role of deregulation in this state of affairs is more important than Piketty stipulates[7].

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2 Recommendation 4: Give more prominence to the distribution of income, consumption and wealth: '*Average income, consumption and wealth are meaningful statistics, but they do not tell the whole story about living standards. For example, a rise in average income could be unequally shared across groups, leaving some households relatively worse-off than others. Thus, average measures of income, consumption and wealth should be accompanied by indicators that reflect their distribution. Median consumption (income, wealth) provides a better measure of what is happening to the "typical" individual or household than average consumption (income or wealth)*'. CMEPSP, 2009. With increasing inequality it is not unusual for the mean to increase (driven by the high end tail of the distribution) while the median recedes. The same point is made by the OECD (2011).

3 See Mirowski (1991, 2011, 2013).

4 See Mirowski (2013). The book argues *inter alia* that commoditized science loses quality, as since the 1980's research moves away from large research Laboratories of major corporations and universities into contract research organization (CRO) acting under budget pressure and short time horizons. See http://citeseerx.ist.psu.edu/ viewdoc/download?doi= 10.1.1.92.7530&rep=rep1&type=pdf last accessed April 2014.

5 See Piketty (2014). The main thesis of the book, supported by an impressive amount of data and research, is that capital income is rising faster than economic growth. As a result, a comparatively shrinking share goes to income earned from labour. The same argument has been made before; see International Labour Organization - ILO (2012). Piketty's analysis has been questioned by Chris Giles on the Financial Times (May 23), Clive Crooks on Bloomberg (April 20) and on a more theoretical ground by Debraj Ray (May 25). The analysis, defended by Paul Krugman on the New York Times (May 24) among others, seems to stand at the time of writing the present note.

6 See Atkinson and Piketty (2010), Atkinson et al. (2011).

7 See Krugman's (2014a) review of Piketty's *Capital in the Twenty-First Century* book, where he largely endorses Piketty's work. Even for Wolf (2014c), for whom '*Inequality [...] is inevitable and to a degree even desirable*', still we should take notice that some moderation is desirable and '*We are not seeing moderate rises in inequality*'. Also interesting the take of another Nobel prize winner, in Solow (2014).

- … Erik Reinert is right and the roots of the European crises lie in the deindustrialization of the periphery which started long before the financial crisis? What if the present imbalance between the power of the financial sector and the real economy – which led to a negative debt-to-GDP spiral – needs to be addressed as being a core problem, as it was along the whole political axis during the 1930s? What if he is also right in his critique of neoclassic economics, where he says that we have unlearned the lesson of continental economics that development is driven by Schumpeterian dynamic imperfect competition [i.e. a piece of innovation works better when he who first introduces it is for some time protected from competition], and that the postulation of perfect competition and efficient markets was – at its roots - an expedient to keep developing countries from creating and industrial sector[8]. What if true development by innovation in the private sector needs heavy investments by the public one[9]?

- … Erik Brynjolfsson and Andrew McAfee[10] are right and the combined effect of globalization and innovation creates an unprecedented condition of job destruction, one which the wealth created by innovation will not be capable of offsetting because of inelasticity of consumption, speed of the change, and inequality in the distribution of wealth?

- … Carl Benedikt Frey and Michael A. Osborne[11], are likewise right that computerization alone could endanger most of our jobs (e.g. 47% of the job market in the US)?

- … Daron Acemoglu and James Robinson[12] are right and increased inequality will foster the further growth of rent-extracting elites in a *quintessential vicious circle*?

- … Kate Pickett, Richard Wilkinson[13], Joseph Stiglitz[14] and Adam Smith[15] are right [in at least this] that inequality corrodes trust and that the perception of unfairness makes society dysfunctional?

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8 See Reinert (2008).
9 See Mazzucato (2013).
10 See Brynjolfsson and McAfee (2014). This book is now being quoted almost everywhere in: The Economist (2014), Wolf (2014a, 2014b), and even by IMF's Managing Director Christine Lagarde in a speech at Stanford University, on February 25 this year, see: http://www.imf.org/external/np/speeches/ 2014/022514.htm, last accessed April 2014. A shorter, US-policy-maker-adapted version of book is from The Futurist, http://www.wfs.org/ content/futurist/ march-april-2012-vol-46-no-2/thriving-automated-economy, last accessed April 2014.
11 See Frey and Osborne (2013)
12 See Acemoglu and Robinson (2012).
13 See Wilkinson and Pickett (2009).
14 See Stiglitz (2012).
15 See Smith (2009). On the concept of 'fairness' as a fundamental ingredient of the social fabric see also Akerlof and Shiller (2009, p. 19-25), and Saltelli and d'Hombres (2011).

- … Paul Krugman[16] and Hal Salzman[17] are right and the implication of globalization and innovation in a society where the marginal cost of production goes to zero, is that jobs will disappear, and that skill mismatches and STEM (science, technology, engineering, and mathematics) penury have little or nothing to do with this?
- … Jeffrey Sachs and Laurence Kotlikoff[18] are right and each newborn generation will be worse off than its predecessor due to machines tilting the balance in favour of the elders?
- … Nicholas Georgescu-Roegen got it right and natural resources' scarcity has something to do with the present crisis[19]? Is it by chance that the beginning of the global financial crisis coincides with the flattening global supply of oil? What if from 2005 onwards conventional production of oil reached a plateau (Peak Oil) and it is now inelastic[20], unable to respond to rising demand[21]?

This brief aims to expand on these elements of reflection, further questioning the *received wisdom*. Some of the scholars see the future opened by these threads as dystopian. In Ranciere and Kumhof (2010) theoretical approach, inequality would end up in a deep financial crisis; this is mainly due to unsustainable borrowing driven by the need to narrow the gap in consumption between capital and labour owners. Ravetz (2013) sees war as a candidate strategy to stabilize a system where the marginal cost of production is zero due to innovation, like in George Orwell's novel 1984.

Those who oppose present European Union policies now hypothesize fiscal colonialism[22] and 'Latin-Americanisation' of European count-

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16 […] *the belief that America suffers from a severe "skills gap" is one of those things that everyone important knows must be true, because everyone they know says it's true. It's a prime example of a zombie idea — an idea that should have been killed by evidence, but refuses to die*. See Krugman (2014b).

17 *Despite naysayers, the nation is producing more than enough quality workers in scientific and engineering fields—and policymakers and industry leaders should proceed accordingly*. See Salzman (2013).

18 See Sachs and Kotlikoff (2012).

19 See Giampietro et al. (2012).

20 See Murray and King (2012).

21 In a zero-sum game, countries such as China and India increasing their consumption of oil implies developed ones reducing theirs. In relation to this predicament non-conventional oil reserves and alternative energies do not seem to be able to provide effective substitutes in the short-medium term at the global scale. See Kerr (2012) and Smil (2008).

22 An expression used by Philippe Legrain, a former economic adviser to the European Commission president, see http://www.nytimes.com/2014/04/22/opinion/euro-zone-fiscal-colonialism.html?_r=0 last accessed April 2014.

ries[23]. Others see the present crisis as the result of a secular tension between capitalism and democracy, whereby the present regime of fiscal consolidation is the most recent episode of a drama where the fiscal states become debtor states, hostage to globalized markets, and the citizens lose all chances to influence a conflict which now plays itself at the global scale between financial markets, international organizations and states. In this scenario the European Union becomes an executive federalism – '*a reconstitution of capitalist democracy in Europe in the sense of a solidification of the results of three decades of economic liberalization*'[24]. Whether this should lead to the dissolution of the European project or to its completion is the subject of a heated debate between Wolfgang Streeck and Jürgen Habermas[25].

But there are some other scholars that share a more optimistic view. Jeremy Rifkin[26] sees the internet of things as harbingering a new era of growth: the shared economy. Brynjolfsson and McAfee (2014) are confident that a 'beautiful partnership' can include humans' intuition and creativity and computers' high routine processing, repetitive arithmetic and communication abilities. In France, Attali's Positive Economy manifesto[27] sees space for an unselfish economy. Progressive Economy, an initiative launched in 2012 to stimulate a debate on economic and social policy and to promote progressive thinking, held a successful forum in March 2014 enrolling Joseph Stiglitz[28]. At the same time there is room for analytic work on the future of jobs which is based on a dynamic analysis of automation combined with taxonomies of skills capabilities. Advances in information technology and robotics are already transforming the workplace, and even greater changes lie ahead. Elliott (2014) looks at what the next two decades might bring. According to Steele (2014) what the world needs right now is the restoration of trust collapsed by rampant corruption at all level of government and representation, and this can be achieved by a grass root movement for collective decision-making based on open source everything: '*The open source ecology is made up of a wide range of opens – open farm technology, open source software,*

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23 See Reinert and Kattel (2004), and Reinert (2011). For the Baltic case see Sommers and Woolfson (2014).

24 The point is made by Wolfgang Streeck, author of 'Buying Time: The Delayed Crisis of Democratic Capitalism'. See also 'The Crises of Democratic Capitalism': http://newleftreview.org/II/71/wolfgang-streeck-the-crises-of-democratic-capitalism, last accessed May 2014.

25 A full rendition of the terms of the debate is available online at: http://www.india-seminar.com/2013/649/ 649_jurgen_habermas.htm, last accessed May 2014.

26 See Rifkin (2014). People and communities are at the heart of this new economic paradigm, building the collaborative economy where consumers have been replaced by *prosumers*.

27 The Movement for a Positive Economy: a platform to develop relationships and create knowledge about an economy that seeks more than profit, http://www.lh-forum.com, last accessed April 2014.

28 See http://www.progressiveeconomy.eu, last accessed April 2014.

*open hardware, open networks, open money, open small business technology, open patents – to name just a few*'. Steele – a former CIA officer, sees a revolutionary tipping point as very close[29]. It only needs trigger – he says, a Tunisian fruit seller as was the case for the Arab spring.

## 2. European Institutions as policy actors on a global stage

It would be instructive to study how the 'economic and social progress' of the Treaty of Rome's preamble evolved and condensed over the years to become just *growth* in much of the official European Institution's communication parlance today. The current narrative is not totally undisputed though. Recent European Commission communication on Horizon 2020 work-program acknowledges the complex inter-linkages between innovation, growth and employment. While the latest European Commission (2014) macroeconomic forecast report (Spring 2014) sees 'genuine signs' of economic recovery appearing after a double dip recession, the last report on Employment and Social Developments in Europe[30] takes a more cautious interpretation. It encourages a more reflective stance in order to reconcile these allegedly positive signs with the challenging labour market developments, growing divergent patterns within the EU itself and insufficiently effective public policies in a narrow fiscal manoeuvring space.

Meanwhile, the European Central Bank (ECB) is already running on a fast-track to update its previous conservative approach. The understanding is that several transmission mechanisms are hampered or not fully efficient in the case of a dysfunctional and segmented European financial market. Given its recent monetary policy decisions (see Governing Council decisions from June 5th, 2014), ECB might seem more courageous compared to other major central banks. But embracing actions that look like a shock therapy (i.e. negative interest rates) gives more the impression that Europe's time is running out. It is not clear yet whether more money pouring – via the banking sector – into an already over-indebt system can solve structural deficiencies[31]. At most, monetary policy might be effec-

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29 '*The preconditions of revolution exist in the UK, and most western countries. The number of active pre-conditions is quite stunning, from elite isolation to concentrated wealth to inadequate socialisation and education, to concentrated land holdings to loss of authority to repression of new technologies especially in relation to energy, to the atrophy of the public sector and spread of corruption, to media dishonesty, to mass unemployment of young men and on and on and on*', Steel, (2012).

30 See European Commission (2013).

31 The paradox is that the most of the Europe's sovereigns which are now dealing with high debt burdens are also the ones required to increase their investments in education and social equity; these countries lag behind their EU peers when evaluated using common measures and indicators. Credit constrained households are the most likely ones to endure the negative consequences arising from the lack of jobs and fair education opportunities. See the empirical and theoretical work of Acemoglu and Pischke (2001), Cameron and Taber (2004).

tive to sail the economy across volatile business cycles; it cannot effectively address the employment and social challenges we are facing today, which should be left for other institutional actors in charge with economic and structural policy design. In the meantime the combination of low inflation and high public and private debt hangs menacingly over Europe (Münchau, 2014).

The IMF takes seriously into account the interplay between economic policies and income inequality, i.e. the distribution of both market and disposable income (see IMF, 2014). Some recent IMF staff working papers (i.e. not necessarily reflecting IMF views) have investigated linkages between inequality and economic imbalances (see Lebarz et al. 2012) and between inequality and the duration of the spell of growth meaning that less unequal countries can take better advantages of economic cycles turning to positive growth (see Ostry et al., 2014). A *mea culpa* IMF paper (see Ball et al., 2013) looks at the downsides of fiscal consolidation in OECD countries over the 1978-2009 period and draws a list including: increasing inequality, rising long-term unemployment and decreasing labour share. Discussing IMF's recommendations on labour market policies, Blanchard et al. (2013) admit that the recent crisis was longer than expected and this prolongation had negative employment consequences, especially on at-risk categories such as youth and low-skilled.

OECD (2011) takes a broader perspective on the determinants of income inequality, considering globalization or off-shoring along with innovation and changes in labour market institutions and policies. The report sees nothing inevitable about rising inequalities and insists on using fiscal policy levers such as well-designed tax and transfer redistribution policies. Some other recipes concern: more intensive human capital investment (on-the-job training; formal education over working life) and inclusive employment promotion (especially for underrepresented groups: youth, women, migrants).

ILO expresses concerns about the decreasing trend in the GDP share of labour and the associated increase in the stake that goes to capital owners in terms of profits, capital gains and rents (see ILO, 2012a). The entrenched developments observed in unemployment rates during the current crisis, especially in case of youth unemployment, and the potential negative consequences on human capital are summarized in O'Higgins (2010), ILO (2012b, 2013). These reports put forward some potential recipes to promote decent work for youth in the field of: education – to ease school-to-work transition; entrepreneurship and self-employment; active labour market policies – to focus on employment planning and job search assistance; pro-employment macroeconomic policies – to stimulate demand and ease financial constraints.

## 3. What challenges and what recipes?

We leave short-term policy considerations related to financial markets functioning aside and instead discuss the long-term economic and policy consequences associated with the current employment and social challenges. According to Brynjolfsson and McAfee (2014), the present *innovation* and *globalization* tsunami acts through several channels: (i) computers substitute man's labour, (ii) skill biased technological change distributes the impact of this unevenly, (iii) most markets become 'winner takes all' markets[32] because of digitization and globalization. What are the consequences of these worrying developments? The authors do not subscribe to the 'classic view', according to which some jobs are destroyed but other are created by the increased output due to the productivity gain and in the end we are all better off. This is not happening, the authors incline to conclude. They note that labour productivity and wages have become 'decoupled' since the late nineties, and that the wage share of GDP has declined with respect to the corporate profit share of GDP. This last point has been made before by other scholars like Thomas Piketty (and Anthony Atkinson and Emmanuel Saez).

Innovation might lead to technological unemployment and other labour market related outcomes. For example, in Schumpeterian models of *creative destruction* (see Aghion and Howitt, 1994, 2006), faster innovation is accompanied by faster obsolesce of skills and, hence, higher labour turnover and (structural) unemployment. The unambiguously negative influence of technological progress on employment rests on the assumptions of irreversible investment and very costly technological update. The current grim economic context and high youth unemployment coupled with rigid labour market institutions do not certainly lay a favourable basis for Europe's future[33].

Serious studies still proclaim that '*advanced technologies will not destroy jobs*', meaning that *the received wisdom* may not disappear overnight. After repeating the classic view that '[...] *when a machine replaces a worker, there is a second-order effect: the organisation using the machine saves money and that money flows back into the economy either through lower prices, higher wages for the remaining workers or higher profits. In all three cases, the money gets spent, which stimulates demand that other companies respond to by hiring more workers*', Gros and Alcidi (2013) confine to a footnote the caveat that *'This argument obviously*

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32 In a 'winner-takes-all' market, the differences between the market winners and the losers is larger and might be growing because of high fixed cost imposed on production by innovation.
33 See Mroz and Savage (2006) and Kahn (2010) work on the long term consequences of youth unemployment.

*holds for well-functioning democratic economies, where the benefits of technological change are widely distributed within the whole society and are not concentrated in the hands of a few affluent people and autocrats.'* Based on the work cited thus far and the impact of inequality[34] we beg to doubt that our democratic economies are all that well functioning, and that one should at least concede scope for circumspection. The report is not optimistic instead about Europe in general, suggesting that economic power and global share of Europe will shrink over the next decades, mainly because of emerging countries (China, India, Africa etc.).

What recipes are put forward to tackle the '*onrushing wave*' about to swipe the labour markets? Brynjolfsson and McAfee (2014) provide three chapters devoted to solutions: one for individuals (learning to race with machines), and two for policy-makers (present and long term). As far as the individuals are concerned – no surprise here – the only viable recipe is education. Unfortunately what skills shall be needed remains still unknown, though an important ingredient will be to work *with machines* instead of *against them*. Innovation itself should be exploited, and MOOCS (massive open online courses) are seen as a recipe to both improve the quality and the equity of education. The short term policy prescriptions are, again, Education; here the work of Eric A. Hanushek and Ludger Woessmann, is quoted – these authors '*provide evidence that the robust association between cognitive skills* [acquired at school] *and economic growth reflects a causal effect of cognitive skills and supports the economic benefits of effective school policy*'[35]. MOOCS are mentioned as well as investing on teachers and making them accountable. Kids should be kept in the classroom for longer hours. Startup should be nurtured, basic research fostered, infrastructures upgraded, regulation of new markets kept in check, Pigovian taxes (e.g. against pollution) levied, rents tackled, and more.

The long term prescriptions given in Brynjolfsson and McAfee (2014) revisit the issue of basic income (salary for all) and of negative taxes (you may pay negative, zero or positive taxes depending on your income, where a negative tax is a subsidy). On a related topic, we mentioned right at the beginning of this brief Piketty's book on Capital in the XXI century; the book's main prescription is an annual progressive tax on wealth, worldwide, be it that the utopian nature of this measure is acknowledged by the same author.

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34 In another footnote the authors of the CEPS report note: "*the future evolution of income inequality within countries is extremely difficult to forecast. We have therefore not attempted to provide forecasts for this factor*".

35 See Hanushek and Woessmann (2009).

Again on education there is increasing attention toward a 'learning economy' rather than 'information economy', where '*learning is an interactive, socially embedded process; its efficiency depends on the institutional set-up, the national innovation system. The content of the knowledge generated through learning is critical: tacit knowledge is essential for adjusting to change (flexibility) and for implementing change (innovation)*' (see Ernst and Lundvall, 2014). An even more critical reflection on the role of education, and what kind knowledge matters for innovation and growth, can be found in the latest book of Nassim N. Taleb (2012) on anti-fragility. Although predicting the skills that will be needed in the future is not simple, the best options in this enterprise, in terms of resilience / anti-fragility, is for Taleb to analyse what has worked well in the past – including for example reading the classics. But these must be learned in school only up to a point, as for Taleb the best learner is the autodidact, and the best learning takes place on the field (on even better on the road). He believes that the arrow of causality goes from wealth to education and not the other way round, a view which most international organizations would disagree with.

## 4. Final consideration

The point of this brief is that business as usual – the *received wisdom* – is perhaps not the best course of action for the European project, if business as usual means continuing to appeal to the *return of growth*. This is not because we are happy about the possible end of growth – we don't believe in Latouche's *décroissance heureuse* (happy de-growth), but because: (i) growth is likely to be subdued in the coming years - in its current (April 2014) World Economic Outlook, the IMF essentially endorses the secular stagnation hypothesis; and (ii) growth is likely to accrue only to the *elites* in the present paradigm[36].

While making sure that opportunities for equitable growth are not missed, more attention should hence be paid to distributive justice and intergenerational fairness[37], to the respect for the rule of law and on to the control of the rent extracting elites. The effect of the consolidation exercise on the most fragile countries should be carefully reconsidered in light of data based evidence. As per the role of innovation, governments should act as both leaders and investors by creating the main building blocks of an innovative environment: world-class R&D infrastructure and a high-performing education system. The EU needs projects where a

36 Taken from Piketty (2014): '*the richest 1 percent appropriated 60 percent of the increase in US national income between 1977 and 2007*'

37 On fairness in EU narratives see Saltelli, A., d'Hombres, B. (2011). Subsequent JRC work pointed to linkages between income inequality and trust see European Commission (2013).

European identity can be established. Jobs and wages - for the median3 EU citizen and his offspring - should be at the top of a new normative agenda and not disingenuously presented as a *by-product of growth* because this narrative has lost all legitimacy. The notion that “wealth raises all boats” has been debunked.

The main problem with the generation of these new narratives is that of the story teller. To make an example, are the European Institutions still plausible storytellers today? And what story can Europeans be willing to listen to and whom from? The impression is that the ‘who’ speaking for the EU enterprise has gone lost in translation and that the legitimacy of EU Institutions has reached a nadir point[38].

Foremost the issue here is not one of ‘what’ but of ‘why’, e.g. an issue of normative economics rather than positive economics. We can only discuss sustainability of the EU enterprise if we first agree on what we want to sustain and for whom. This is where present narratives based on defending the Euro whatever it takes should be enriched with something different. All recipes currently available to reign in the crisis (a banking union, Germany willing to rebalance its economy, various forms of Keynesian intervention,…) are only meaningful if at stake there is more than just a common shared currency and it is up to the Europeans to spell out – in a much needed process of social inquiry[39] – what this more should be. If the prevailing narrative remains one which divides European nations among virtuous and lazy little progress is possible.

At the moment of writing the present note, EU leaders are engaged in an attempt to reconnect the European process with the EU citizens whose dissatisfaction was manifested in the recent European Elections. It seems that going from the Ventotene’s manifesto of 1941, to the Schuman declaration of the 1950, and to the Delors’ and Thatcher’s confrontational speeches of 1988 (see Wall, 2008), we are left today poorer in that element which Joseph Weiler (2012) has called ‘messianic’ and which we could call *ideal*. It would be naïve to neglect this situation – and the associated legitimacy crisis - in discussing possible new narratives.

This brief highlights the fact that the European Institutions might benefit from opening up to different available paradigms in evaluating what has

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38 The point is made by J. H. H. Weiler, who argues that all streams of legitimacy for the EU enterprise have gone dry, including what he call input legitimacy (from democracy), output legitimacy (prom prosperity) and messianic legitimacy (the vision of the founding fathers, e.g. the Schuman declaration), see Weiler (2012).

39 John Dewey’s theory of social inquiry suggests that social progress can be achieved by applying the logic and attitude of successful scientific inquiries to morals and politics.

happened in the past and draw lessons for future policies. Possible fruitful avenues for exploration would be for example:

**Heterodox economics.** Much is happening along the sides of the mainstream economic theories and norms. The international student initiative for more pluralism in how economics curricula are taught (http://www.isipe.net) has been already mentioned. A group of scholars based at the University of Paris 1 have launched a movement for Post-Autistic Economics (PAE), gathering behavioural economics, heterodox economics, feminist economics, green economics, and econo-physics. We have already mentioned Jeremy Rifkin, and Jacques Attali's, the Positive Economy and the Progressive Economy. The problem with all this hype for a new economic paradigm is that – to paraphrase Frank Knight – it is difficult to predict because it is unlike the past. One avenue of research we suggest is the work of Erik Reinert and what he calls German Historical School of Economics, or The Other Canon, inspired by Antonio Serra, by Schumpeterian dynamic imperfect competition, by Friedrich Nietzsche via Werner Sombart, and by many other continental scholars whose lesson – Reinert argues – has been forgotten in the last thirty years (Reinert, 2008). In his work 'How Rich Countries Got Rich . . . and Why Poor Countries Stay Poor', Erik S. Reinert argues that countries did not became rich by free trade following from day one Ricardian comparative advantage prescriptions, but strived to open to trade after having developed through a combination of government intervention, protectionism, and strategic investment, favourable terms of trade. The examples in the book range from the decision of Henry the VII to stop selling wools to the Italian manufacturers (the English Tudor Plan during 1485-1603) as to foster the development of manufacture in England, to the United States following German – rather than English economic theories during the XIX century. In this theory favourable terms of trade are conquered via innovation, dynamically specializing in increasing return activities, typically linked to different classes of advanced manufacture, and moving away from diminishing return ones, e.g. those linked to agriculture or extractive industries. This school of thought's suggestion for action in the present EU predicament is strategic investment in increasing-returns green technologies (Mathews and Reinert, 2014).

**Bio-economics.** The concept of bio-economics was introduced by Georgescu-Roegen as a critique of neo-classical economics (Georgescu-Roegen, 1971; 1975; for an overview of this point see Mayumi, 2001). In particular he wanted to flag quantitative economic analysis' scarce attention to the issue of scale. In his view, the ultimate goal of the economy is not "to produce and to consume goods and services" (the short term, local scale view), but rather "to reproduce and improve the set of processes required to produce and to consume goods and services" (the long term, large scale view). Economy is better seen as a complex self-organizing system that reproduces itself through an informed autocatalytic loop, rather than seeing it as a system producing outputs. Therefore, the concept of bio-economics implies moving from the analysis of what is produced, measured in monetary terms, to the analysis of patterns of production and consumption that are reproduced in the economic process, studying the relation between flows and production factors (funds) across different scales. The distinction between fund elements (production factors) and flow elements (the flows required to reproduce these production factors such as energy, material, water, monetary flows) forces the analyst to acknowledge, in the pre-analytical step, the choice of a given scale. Fund elements must maintain their identity during the duration – the time horizon - of the analysis, whereas flow element either disappear or appear during the duration of the analysis. Therefore, this analysis makes it possible to keep a direct focus on key characteristics of the performance of the economy – employment, level of education, life expectancy, size and performance of institutions, availability of technical capital in the different compartments of the society, changes and characteristics of land use.

Opening to alternative framings of the present predicaments could help us to understand what happened to EU in terms of labour market dynamics and technological progress, economic integration, competitiveness, asymmetric dynamics and policy responses. To give an example of the type of questions that might be addressed:

**Technological progress or technological primitivisation?** A neo-liberal stance in political economy comes with a neo-classic stance in economics proper, which implies light touch regulation, financial de-regulation, and so on. It has been argued that the big bang enlargement in 2004 led to visible damage, due to an increase in cross-border financial intermediation without a proper coordination in prudential supervision, coupled with a consistent de-industrialization of accessing countries and persistent trade deficits, see Reinert and Kattel (2004, based on ILO data), Reinert (2011). For the Baltic case see Sommers and Woolfson (2014). As predicted by non-Ricardian economics, the poor became poorer and the rich richer, a situation which the crisis has made worse (ibidem). Along the same lines, Bertola (2013) discusses the real convergence challenges arising from the difference in financial and trade integration between Eurozone Member States on the back of asymmetric and uncoordinated policy responses. As growing external imbalances were partly motivated by productivity convergence expectations across a financially integrated area, Europe first needs to understand what has derailed these expectations[40]. In a recent Bundesbank discussion paper Borsi and Metiu (2013) find no overall real income per capita convergence in the EU, but – in the long run - the formation of convergence clubs with a clear separation between the new and old EU member states. Though these authors sift unconvincingly through different causes to this status of affair (including consumers spending), their finding are congruent with the prediction of Reinert (2011), including in the success of Ireland which embraced increasing return activities with its revolution in the field of information and communication technologies.

The first step though is to make ex-post policy (impact) evaluation possible, by being open to new paradigms and new perspectives. European decision makers could add some fresh thinking based on evidence and data, but more importantly based on a plurality of analyses not necessarily reflecting past narratives of the organization. This would allow glimpsing beyond the current understanding and might help shape future policies that benefit the EU and its citizens. Knowledge has a privileged role in legitimating a common authority in pluralist societies[41]. The broader debate on knowledge, democracy and markets mentioned at the beginning of this brief in relation to the work of Wolfgang Streeck, Jürgen Habermas, Philippe Legrain and others tells us that better policies based on better evidence can go some way in sustaining the legitimacy of the European Union.

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40 Possible answers might refer to the global financial crisis that initiated in the US or the uncoordinated nature of policy actions and the lack of transnational risk-sharing mechanisms across EU.

41 Modern science has long been an unquestioned source of truth that offers legitimacy to a common authority in pluralist societies (see Shapin and Schaffer, 1985). '*Solutions to the problem of knowledge are solutions to the problem of social order*', according to this important work. See also Lyotard (1979). '*Who decides what counts as knowledge and who knows about what one must decide? [...] The question of knowledge in the information society is more than ever the question of government*'.

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